GRAVES, DOROTHY
PAGE 1 OF 1

This is Dorothy Graves at 429 Mesquite Avenue in Amarillo, Texas and I was unable to go to the meeting that they had here in Amarillo at the Radisson Inn and we were making, we were voting either for or against having this, having this program, at the, at the Pantex Plant. And just wanted to say that I am in favor of it, of it coming to Amarillo. I worked at Pantex for fourteen years. I'm retired now, but I worked there fourteen years and I do know that they were very good, very careful and we certainly were not afraid of working there. And I just wanted to say I do hope that you come to Amarillo. We would love to have you. Thank you and bye-bye. 1

PD024

PD024–1 **Alternatives**

DOE acknowledges the commentor's support for new 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.

7616 Tarrytown Avenue
Amarillo, TX 79121

August 7, 1998

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

Gentlemen:

The following factors and thoughts are offered in favor of Pantex as the selected site for the Pit Disassembly and Conversion Facility:

1. The plutonium is at Pantex. Processing this material at Pantex avoids the cost of packaging, transporting, and unpackaging the plutonium. Potential safety concerns associated with personnel radiation exposure due to handling the material or due to shipping accidents are avoided. The inevitable public outcry opposing the movement of plutonium on public highways will be avoided. Public outcry could easily be elevated into court challenges involving legal delays and expense for the Department of Energy.

2. Pantex is closer to the National Laboratories than Savannah River. Travel expense for supporting technical personnel will be reduced if Pantex is the selected site. 1

3. Pantex enjoys commendable public and community support at all levels of the political, economic, social and academic institutions.

4. The DOE should consider the cost of not selecting Pantex for this work as well as the direct cost of constructing the facility. Pantex has a large fixed cost with the infrastructure to support 3000-4000 workers. It is much more efficient to operate Pantex in a fully busy state than to maintain it at a half utilized state of approximately 2000 workers. In addition locating new work at Pantex will improve employee morale and provide a young workforce incentive to work at Pantex. Continuing the present trend of downsizing Pantex is going to result in a hollow facility that will be increasingly expensive to operate and maintain and that is staffed by an aging workforce.

Very truly yours,

Charles E. Green

MD014

MD014–1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. For a better understanding of the cost and schedule estimates for each alternative, consult *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) 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. These documents 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.

Worker exposures from repackaging pits to shipping containers as required by the decision to use the AL–R8 sealed insert container were revised in Section 2.18 and Appendix L.5.1. These results will be factored into the siting decision for the pit conversion facility. 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.

HEMPHILL, DAVID H.
PAGE 1 OF 1

August 11, 1998

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

As a citizen of Amarillo, I wish to express my feelings about the location of the disassembly and conversion of nuclear weapons plutonium components ("pits") at the Amarillo Pantex plant. I feel very comfortable with the expansion of Pantex's responsibilities. This comfort is based on the long history of responsible action that has been conducted through the DOE (its predecessor organizations) and through the excellent day-to-day management by the plant's primary contractor, Mason & Hanger Company. 1

Given the past history of the Pantex plant, the environmental assurances given by the DOE and the proven history of the plant operator, I support the expansion of the Pantex facility for either or both of the pending opportunities.

Sincerely,

David H. Hemphill
7041 Chelsea
Amarillo, TX 79109

TXD09

TXD09–1 **Alternatives**

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Pantex. Decisions on the surplus plutonium disposition program 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) Donald HERNON
ADDRESS: 107 Sunset Terrace, Amarillo TX 79106
TELEPHONE: (806) 379-9784
E-MAIL:

Welcome to the Amarillo Area.

I want to call your attention to the excellent worker safety and health record at the Pantex Plant.

From FY 95 to FY 98 (through June), Pantex employees have achieved a reduction in OSHA recordable cases of about 45%, and a reduction in First Aid cases of about 75%.

This significant achievement is, in my opinion, a result of Pantex employees and management working together, while embracing the principles of the Voluntary Protection Program (which is an OSHA Program adopted by the DOE). 1

Pantex employees have demonstrated their ability to accomplish now tasks both safely and efficiently.

I believe the safety and health record of the Pantex employees should be seriously considered when the DOE selects a site for the pit disassembly and conversion facility.

Thank you for your consideration.

TXD26

TXD26–1 **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.

HICKMAN, JOYCE
PAGE 1 OF 1

United States Department of Energy

Comment Form

NAME: (Optional) Joyce Hickman
ADDRESS: 3400 Milam - Ama, Tx. 79109
TELEPHONE: ( )
E-MAIL:

Shipping cross-country is too dangerous. Let's keep our highly trained and experienced people in Amarillo doing what they are trained to do in Amarillo. 1

I am personally acquainted with Jerome Martin of Amarillo. You couldn't find a more knowledgeable co-worker. We need him in Amarillo.

Be sure the storage in lead-covered vitreous can in storage in pits. Pits should be lined in at least 2" liners. Think what a problem we now have at Hanford with that thin (proposed to last 20 years) lining so close to the Columbia River. Sometimes the area too shortsighted. Savanna River site is on a river, and that precludes it as a site. It's also too seismic. (Politics aside). Savanna site has a lot of subsoil moisture. Water can, over time, adversely affect the canisters. You have a mess when it bleeds into the river, as could happen at Hanford. But Pantex needs to own more land for future needs now. We are no homes nearby. 2 3 4

TXD11

TXD11–1 **Transportation**

DOE acknowledges the commentor's concerns about the dangers of shipping plutonium cross-country and losing talented personnel to plutonium-related missions at other sites. 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. 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.

TXD11–2 **DOE Policy**

Plutonium pits are stored in AL–R8 containers, which were developed by DOW Chemical in the late 1960s. The AL–R8 container was certified as a Type B package in 1974 and was used mainly for the movement of pits between RFETS and Pantex. The container is no longer used for shipment; it is now the primary container used for pit storage at Pantex. The containers have a uniform, nominal outside diameter of 51 cm (20 in). All AL–R8 containers are constructed of 18-gauge carbon steel. Within the AL–R8 container, a pit is secured on a metal frame and surrounded by Celotex (a high-density, cane-fiber pressboard) insulation.

TXD11–3 **Water Resources**

A description of water resources at the candidate sites is provided in Chapter 3 of Volume I. Section 4.26 analyzes the impacts of the immobilization and MOX approaches at the candidate sites. This analysis includes both surface water and groundwater resources. No impacts are expected on water resources at either Hanford or SRS. Chapter 4 of Volume I also includes an analysis of human health risk and the results of this analysis demonstrate that the activities would likely have minor impacts at any of the candidate sites.

TXD11–4 **DOE Policy**

There are no land acquisitions planned as part of the surplus plutonium disposition program.

United States Department of Energy

Comment Form

NAME: (Optional) Harvey B. Hopps, Ph.D.
ADDRESS: 3236 Trulam St Amarillo, TX 79109
TELEPHONE: ~~(371)~~ (806) 371-5334
E-MAIL: HBHOPPS@ACTX.~~EDU~~ EDU

I strongly support the Pantex plant as the site for surplus disposition of plutonium pits. I have had over 36 years of industrial experience as an organic chemist during which time I have worked with many various hazardous chemicals. Safety begins with full knowledge, respect & training to produce a proper attitude. I have every respect for the staff at Pantex & urge the DOE to select this site for the Surplus Plutonium Disposition site. 1

Harvey B. Hopps Ph.D.
Instructor, Amarillo College

TXD42

TXD42–1 **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.

Director,
Ms. Carol Borgstrom, My dad and I were talking Saturday about the bad air plane crashes they have had lately. He is seventy nine years old, and a World War II veteran. He stated: that it had prophably been dissussed by scientists before, but he thought it might be safer if they put a "big" parachute on top of the plane incase it might have trouble, one that big enough to hold the plane up in case the motors quit running
later though that maybe if they had a big "helium" ballon that would inflate during trouble. 1

I saw on "television" the other day that Latraid Ultra is good for a person, in which this young "brunette", says "come to Mama".

MD323

MD323–1 **Other**

DOE acknowledges the commentors' observations.

Sincerely,
Tommy Hughes and Dad.

MD323

INTERNATIONAL GUARDS UNION OF AMERICA, LOCAL 38
RANDALL SKINNER
PAGE 1 OF 1

Pantex Guards Union
Local Number 38
International Guards Union of America

3820 Holiday Drive
Amarillo, Texas 79109
Phone / Fax (806) 467-9089

The International Guards Union of America (I.G.U.A.) Local # 38, supports Pantex in its pursuit to be awarded the Plutonium Pit Disassembly and Conversion Facility contract with the Department of Energy (D.O.E.).
Currently Mason & Hanger Corporation is one of the largest employers in the area employing around 3000 people in Amarillo and the surrounding area. With the M.O.X. fuel contract being awarded to Savannah River and production being at an all time low it is imperative that we strive to acquire new work in this field.
The future of Pantex will be uncertain without new work. Pantex may lose the ability to retain essential personnel which would erode our Commitment to Excellence Program currently maintained at Pantex. The economic hardship of Pantex are losing their jobs, would affect all areas of Amarillo's economy.
Currently the storage process is already in place at Pantex Plant and we are the only facility able to accommodate the storage of these materials without spending millions of dollars converting existing structures at other plant sites and the added expense of transportation to accomplish this task.
The work that is presently being performed at Pantex has been done for more than 45 years with the best safety record in the D.O.E. complex, the personnel that preform these duties are highly and constantly trained and genuinely concerned about industrial safety, nuclear explosive safety and the future impacts on the environment.
One of the details concerned with the final disposition of our nations nuclear weapons, is security, the security force at Pantex consists of more than 120 armed Security Police Officers and more than 50 Supervisors and support personnel.
The security force members are continually trained in all aspects of the protection and safeguarding of nuclear materials. The Pantex Security Forces continued their tradition of being the best in not only the D.O.E. complex but the entire nation this year by winning the National Security Police Officer of The Year Competition in Savannah River and bringing home the National Championship and the Secretary's Trophy.
So please consider the alternatives and then add up the dollars saved, the safety records of Pantex and the comfort afforded by a world class security force and commit your support to Mason & Hanger Corporation in this endeavor to secure the futures of our jobs and families. 1

Randall Skinner
Business Agent
I.G.U.A. Local # 38

TXD35

TXD35–1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion facility 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.

Jefferson Street Family Practice, P.A. 16 August 1998

1603 W. 38th Street
Suite 216
Austin, Texas 78731
(512) 459-4147
Fax (512) 458-6154

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

Dear Fellow Citizens:

I would like to take this opportunity to voice my opposition to the use of the Pantex site for plutonium processing. Although Pantex is not in a heavily populated area, the fact that it is above the Ogallala aquifer is quite important to the region. Any contamination of the water supply would have far reaching effects. 1

Also, the need to transport the plutonium would be a major risk as well. Any accident in its transportation could have devastating results. Since this would be the case in any scenario where plutonium would need to be sent from one place to another, probably the best option would be for a ceramification can-in-canister approach to its disposition with more local storage of the containers. 2

There are already doubts about the safety of storage of plutonium currently occurring at Pantex. Plutonium is now being kept in containers that are not corrosion free and they are being temporarily stored in bunkers that are inadequate for any long term storage, and probably are dangerous even in the short run. 3

I admit that I am no expert on nuclear technology or waste, but the processing and storage of plutonium at Pantex seems an unwise plan.

Sincerely,

Elliot J. Trester, M.D.

Pamela Gocos, M.D.
Amy Gupta, M.D.
Mark J. Levy, M.D.
Ann H. Massey, M.D.
Elliot J Trester, M.D.
Martha Corzon, RN FNP

Gay L. Zein Manager

MD040

MD040–1 **Water Resources**

DOE acknowledges the commentor's opposition to locating the pit conversion and MOX facilities at Pantex. Section 4.26.3.2 indicates that there would be no discernible impacts to water quality from construction and normal operation of the proposed facilities.

MD040–2 **Transportation**

DOE does not agree that the transportation of nuclear materials required to disposition surplus plutonium is a major risk. Section 2.18 describes the transportation risk for each of the alternatives analyzed in this SPD EIS. DOE does, however, recognizes the public concern about this issue and will work with State, tribal and local officials on transportation plans related to the shipment of nuclear materials in accordance with DOT, DOC, and DOE agreements. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures (accidental or not) or vehicle emissions are expected. DOE acknowledges the commentor's support for the use of the ceramic can-in-canister approach.

MD040–3 **DOE Policy**

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

JOHNSON, J. P.
PAGE 1 OF 1

United States Department of Energy

Comment Form

NAME: (Optional) JP Johnson
ADDRESS:
TELEPHONE: ( )
E-MAIL:

I AM A quality Assurance Technician at Pantex I am also the union Steward for my area. On behalf of those in my area that couldn't make it here tonight I would like to express those feelings, brought to me.

We are proud of the work that is done at Pantex. Our area does exactly what our title states. We assure the quality of work at the Pantex plant. Let Me assure you, the quality of the work that is performed at the Pantex Plant is top notch. Once again, our commitment is to the pursuit of excellence in the work place. 1

We strive to give you, DOE the Best product possible. ~~We strive to give the public the safest~~ ~~[illegible]~~

~~Remember Safety First!~~

We strive to give you the Public, our families & the environment the safest workplace possible.

TXD21

TXD21–1 **Alternatives**

DOE acknowledges the commentor's views on the high quality of work at Pantex and appreciates the assurance of continuing efforts to that end. 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) Mina Fields Johnson
ADDRESS: Box 114, Adrian, TX 79001
TELEPHONE: (806) 538-6214
E-MAIL: minerelle@am.net

I moved back to the panhandle to restore my family farm so there would be a legacy for my grandsons.
I don't want my lovely state ruined by the mistakes of bureaucrats. Don't increase the plutonium situation in West Texas. Let's decrease it. 1

Mina Johnson

TXD08

TXD08–1 **Alternatives**

DOE acknowledges the commentor's opposition to the surplus plutonium disposition program at Pantex. 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.

KACZMAREK, DORIS K.
PAGE 1 OF 2

Aug. 11, 1998

To Whom It May Concern:

I am a 22-year resident of Randall County and the city of Amarillo and I fully support the proposed expansion of the Pantex mission. Pantex is an honorable member of this community and has been operated in a safe and efficient fashion. There is no reason to forecast that this will change if the added plutonium disposition project is assigned to Pantex. I believe that the plant has operated in an environmentally sound fashion and has caused no irreparable harm to the surrounding area, thanks to careful attention paid to developing scientific research and resultant commercial applications. I do not think it is wise to hold the Pantex facilities hostage to past misdeeds which occurred at the Rocky Flats or Hanford sites. 1

Likewise, I feel the Pantex security

TXD03

TXD03–1 **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.

forces are superior and fully capable of protecting the plant from terrorist activities which present an ever-growing problem. It seems only logical to locate the expanded plutonium mission in this area which is 300-400 miles from any major metropolitan area and thus far more easily circumscribed and protected. The potential for terrorist activity would be greater, harder to detect, and could result in greater harm in the Savannah River corridor which includes Miami, Atlanta, Washington, D.C., and New York City. This argument alone should be sufficient to tip the scales in favor of Pantex as the preferred location for the expanded operations. 1

Therefore I encourage the Texas Congressional delegation and DOE representatives to speak forcefully and favorably concerning the assignment of plutonium disposition duties to the Pantex plant.

Sincerely,
Doris K. Kaczmarek

DORIS K. KACZMAREK
3501 EDGEWOOD; AMARILLO, TX 79109
806 359-5338; FAX 806 359-5836

TXD03

KARRH, ROBERT
PAGE 1 OF 1

This is Robert Karrh. My address: Route 8, Box 40-10, Amarillo, Texas 79118. I would like to voice a comment on why doesn't it make sense that we put the station in Amarillo instead of taking it, you know, somewhere else. The pits are already here and it looks to me like it would be, logical to place the pit disassembly and conversion facility in Amarillo instead of having to cart these pits X number of hundred miles to Savannah River or somewhere else. There, in the possibility of them, you know getting damaged or whatever. So I want to voice my comments for Amarillo, Texas and the Pantex Plant for the preferred pit disassembly and conversion facility. The community here really supports Pantex. They got a great safety record. They got qualified people, engineers and technicians and I think it makes more sense to place it here. 1

PD012

PD012–1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Potential impacts of transportation of pits would likely be minor if Pantex were chosen as the site for pit disassembly and conversion because pits are currently stored there, while transportation would be minimized if SRS were chosen because SRS is the preferred location for the MOX facility. 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 (accidental or not) or vehicle emissions are expected. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analysis 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.

Yes, this is Marilyn Keen at 4018 Tulane, Amarillo, Texas, 79109. (806) 355-6271. I'm in favor of the Pantex expansion and the disposition of the nuclear, plutonium pits at the Pantex Plant. Thank you. 1

PD015

PD015–1 **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.

KELLY, DOUGLAS M.
PAGE 1 OF 1

Douglas M. Kelly, Hereford, Texas 79045. 704 11th Street. And I thought this was to make a comment on whether we needed that facility up there for the plutonium and my ideas was heck no due to the water. And the one mistake and it's gone. That was it. Good bye. 1

PD014

PD014–1 **Alternatives**

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Pantex. 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. 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.

I am for the location of additional missions at the Pantex Plant in Amarillo. The Amarillo economy needs the additional jobs that offer good pay and good benefits. The Pantex Plant adds an enormous, and welcome, boost to the Amarillo economy. 1

WD021

WD021–1 **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.

KOPKE, MARK
PAGE 1 OF 1

Question/ Information Request Card

Name: MARK KOPKE
Address: 4116 S. WASHINGTON
AMARILLO, TEXAS
Phone: 806 358-4063 Fax:
E-mail:
Question/ Request: YOU TOOK ARE AIR BASE AWAY SAVANA HAS GOTTEN A MISSION, BE FAIR GIVE PANTEX A MISSION, WE HAVE EARNED IT. LOOK AT ARE RECORDS 1

For further information contact:
U.S. Department of Energy, Office of Fissile Materials Disposition, MD-4
Forrestal Building, 1000 Independence Ave., SW, Washington, D.C. 20585
1-800-820-5156

TXD12

TXD12–1 **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.

August 11, 1998

Keena Ladd
Rt 7 Box 680
Amarillo, TX 79118

To whomever this may concern,

As a citizen of Amarillo, I would like to express my feelings upon the issue of the Pantex Plant. I have lived here for 23 yrs. and have yet to hear many critical points about this plant. As many people that it employees, that tells you right off that Mason & Hanger is a fantastic company to work for. Why don't people just go on about their business? How would they like it if someone tried to close their doors? The reason I am discouraged, my Dad is an Master Electrician at the plant. How is there going to be food on our table if he has no work? **Leave it alone** and help our Nation with **Drugs, Teen Pregnancy, Weapons,** things that are far more important. Please consider this my vote. Thank you! 1

"I AM FOR PANTEX IN OUR COMMUNITY!!"

Sincerely,

Keena Ladd

Keena Ladd
Age 23
Amarillo, TX

FD005

FD005–1 **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.

MARTIN, JEROME B.
PAGE 1 OF 1

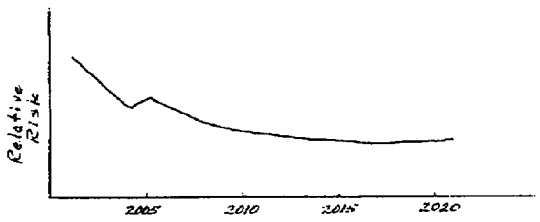
United States
Department
Of Energy

Comment Form

NAME: (Optional) Jerome B. Martin, CHP
ADDRESS: 5 Locke Place, Amarillo, TX 79124
TELEPHONE: (806) 342-9985
E-MAIL: jbmartin@am.net

The major risk to workers and the public from current operations at Pantex Plant is the accidental detonation of high explosives. Nuclear weapons contain two types of high explosives: sensitive and insensitive HE. As the nuclear stockpile is modernized and older weapons programs are disassembled, sensitive HE is gradually being eliminated from the stockpile. Thus, the relative risk of operations at Pantex is decreasing with time.

If the Plutonium Disassembly and Conversion Facility were built and operated at Pantex, there may be a small incremental risk added to the risk of current operations. However, further reductions in risk achieved by continued elimination of sensitive HE would soon counter the added increment from a new mission at Pantex. A sample plot of risk vs. time is shown below. If the relative risk can be quantified and illustrated as shown below, it would be helpful in explaining risk to the public and for demonstrating that the risk of the Plutonium Disassembly and Conversion Facility is small and manageable. 1



For further information contact:
U.S. Department of Energy, Office of Fissile Materials Disposition, MD-4
Forrestal Building, 1000 Independence Ave., SW, Washington, D.C. 20585
1-800-820-5156

FD201

FD201–1 **Human Health Risk**

While the commentor's input is illustrative, the accident analysis performed in this SPD EIS is limited to characterizing risk of the alternatives at issue. The accident risks associated with constructing and operating the pit conversion facility at Pantex can be found in the Facility Accidents sections of Chapter 4 of Volume I and in Appendix K.4.

Maryknoll Education Center

The Maryknoll Society
4301 Bryan Street # 202 Dallas, Texas 75204
Area Code (214) 821-4501

a bridge among peoples

August 17, 1998

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

Dear Department of Energy, Office of Fissile Materials Disposition:

I do not support plutonium processing at the Pantex Plant. In the *Surplus Plutonium Disposition Draft Environment Impact Statement*, the Department of Energy prudently decided against locating one plutonium processing facility at the Pantex Plant. For the following additional reasons, a Plutonium Pit Disassembly and Conversion facility also should not be located at Pantex: 1

1. Pantex should not become the next Rocky Flats. As Pantex has never processed plutonium, it has apparently escaped the type of contamination found at plutonium processing sites like Rocky Flats and Hanford. Let's keep it that way.

2. There is so much about the potential risks that is unknown: It is not the time to proceed. It is unacceptable to have plutonium operations above the Ogallala Aquifer, and only one mile from where people live and work in a vibrant agricultural producing area. 2

3. There is valid, strong criticism of safety in the current storage of Plutonium at Pantex. Promises to improve safety conditions at the site have not happened. The U.S. Government Accounting Office and the Defense Nuclear Facilities Safety Board have both issued reports critical of plutonium storage safety at Pantex. If the DOE cannot accomplish the job of safely storing Pantex plutonium in the most stable environment, there is no reason to accept its unsubstantiated assurances to safely process deadly plutonium powders at Pantex. 3

Thank you for this opportunity to comment.

Sincerely,

Sr. Patricia Ridgley

Sr. Patricia Ridgley, SSMN

"We are called to be bridges between our own U.S. Church that sends us and the local churches where we serve." - Maryknoll Mission Vision

MD041

MD041–1 **DOE Policy**

DOE acknowledges the commentor's opposition to Pantex as a candidate site for surplus plutonium disposition activities. 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. To avoid contamination that has occurred in the past at some DOE sites, DOE would design, build, and operate the proposed facilities in compliance with today's strict environmental, safety, and health requirements. Decisions on the surplus plutonium disposition program at Pantex will be based upon environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

MD041–2 **Water Resources**

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Pantex. As discussed in Section 4.26.3.2.2, there would be no discernible impacts on water quality 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.

MD041–3 **DOE Policy**

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

MASON & HANGER-SILAS MASON COMPANY, INC.
CHARLES ELSEA
PAGE 1 OF 1

Concerning the pit reprocessing (MOX conversion), I feel Pantex should be considered the #1 choice for the mission. I have worked at Pantex for 12 years and have been thoroughly impressed by the commitment of the employees and community in safety and environmental issues when performing a mission as well as performing the mission in a timely and efficient manner. 1

WD015

WD015–1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. However, to clarify, the pit conversion facility does not involve reprocessing plutonium. The facility would be used for disassembling pits and converting the recovered plutonium (as well as plutonium metal from other sources) into plutonium dioxide suitable for disposition. Similarly, 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). 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.

Comment on the Location of the Pit Disassembly Operation

I am a degreed Industrial Engineer with 26 years experience in the manufacture of the various types of products including:

- Small AC Motors
- Large Steam Turbines
- Aluminum Reduction, Coil, Sheet, and Plate
- Industrial Water Filtration Equipment
- Solid Fuel Motors for C4, D5, MX, P2 Missiles and Space Craft
- Air Force C17 Transport Aircraft

For the last 4-1/2 years I have been employed at PANTEX. Naturally, as an Industrial Engineer, I have mentally compared the characteristics of PANTEX versus other employers I have worked for. Based on my substantial manufacturing experience, I present the following reasons why PANTEX should undoubtedly be selected as the site for the Pit Disassembly operation :

1

Quality of the workforce

The Production Technicians and other "hands-on" operations personnel are far superior to their counterparts at other manufacturing locations I have observed. They are highly trained. New employees are carefully monitored after initial training, and systems and procedures are in place to assure that they do not work on various operations until they are fully capable. They have an extremely strong "esprit de corps" which translates to pride in workmanship, plant mission, and dedication to their country. I have never seen such a high level of positive workplace interpersonal relationships. The education level of the workforce varies, but includes personnel working on Engineering and other degrees and those who already have a Bachelors Degree in Engineering.

Quality of work

The type of work performed here is very technical and precise, and the product generated by PANTEX continuously meets the high quality

FD243

FD243–1 **Alternatives**

DOE acknowledges the commentor's support of Pantex and appreciates the enumeration of reasons 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.

parameters typically required for nuclear weapons. Quality is constantly emphasized and monitored and operations personnel stress it to each other. Management and other support functions have the same level of commitment and pride in high quality output.

Security

The superiority of the PANTEX security force is legend both within and outside the DOE complex. Due to their high emphasis on physical conditioning and continuous training and application of proven security principles, the members of this force are constantly alert and perform their duties in a highly professional and effective manner. Security is increasingly becoming more demanding in its requirements and the PANTEX Security force is the "best there is".

Workforce Experience

The PANTEX work force has decades of successful experience in nuclear weapons assembly and disassembly. This type of experience is rare and the numbers of personnel possessing it is limited. DOE should capitalize on this reserve of personnel with this rare type of qualification and utilize them and their skills in the Pit Disassembly operation which is closely related to work they are already performing. This factor cannot go unconsidered in the final selection process. 1

Community Support

For every public issue there are those who support it and those who oppose it along with others who either don't care or are not knowledgeable about the issue. The important factor is what portion of the public fall into each category. As a result of the Freedom of Speech, which all Americans possess, parties for and against an issue can proclaim their views in person, through displays, and through the news media. The news media generally present the views of each camp equally although one camp may be substantially smaller in number than the other. This can lead to misunderstanding by the public as to the amount of support that exists in the public domain for each side of the issue.

The fact of the matter regarding community support for the possible location of the Pit Disassembly operation at PANTEX is that support for locating it at PANTEX is overwhelmingly in favor of doing so. The

FD243

opposition is minute in comparison and, as it appears to me, is composed of some sincere local citizens along with a mixture of persons who are not from the Texas panhandle, possessing other "agendas" which might include trying to maintain an apparent need for them to remain in the area as an opposition force which also would assure them of a continued monthly pension from their parent organization.

Conclusion

The above factors make it extremely clear that the Pit Disassembly operation should be located at PANTEX. As you review these factors it should also become clear that an apparent mistake has been made concerning the DOE decision naming SRS as the preferred sit for the MOX facility. Politics should not enter into decisions concerning issues as critical as the location of Pit Disassembly and MOX operations. By locating both the MOX facility and Pit Disassembly facility at PANTEX, unnecessary possible hazardous transportation problems would be alleviated and the operations would be performed by a work force highly superior to those at any other DOE site. Please emphasize at the highest levels within DOE and Congress that truth cannot successfully be denied and the truth is that **THE PIT DISASSEMBLY OPERATION AND THE MOX FACILITY SHOULD BE LOCATED AT PANTEX.** 1
This would be in the best interest of the United States of America.

William R. Henry
Sr. Project Engineer
PANTEX

FD243

MASON & HANGER-SILAS MASON COMPANY, INC.
SCOTT
PAGE 1 OF 1

Move ANY or ALL operations to Pantex. Count me as FOR Pantex Expansion. Thanks. | 1

WD016

WD016–1 **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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Mason & Hanger-Silas Mason Company, Inc.
Leon E. Tomlinson
Page 1 of 1

I believe since Plutonium was first made in a nuclear reactor, it should like wise be expended in a nuclear reactor. I would like to see Plutonium be processed into mixed oxide fuel for use in a nuclear reactor to produce electricity. Futhermore DOE should sell this fuel to reactor sites in the U.S. to try to defray any cost it has accrued in producing the fuel rods. I think Pantex site in Amarillo, Texas can do this for DOE in a safe and efficient manner and at substancially less cost than other DOE facilities. Please consider Pantex as a site for the pit dissasembly and conversion process. I am a Pantex employee of 23+ years, and I can attest of our safe work practices. Thank you!
Leon E. Tomlinson 1

WD013

WD013–1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities at Pantex. Use of MOX fuel in domestic, commercial reactors is not proposed in order to generate 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.

DOE has identified as its preferred alternative the hybrid 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, in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

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.

MAXIE, DONALD
PAGE 1 OF 1

United States Department of Energy

Comment Form

NAME: (Optional) Donald Maxie
ADDRESS: 2108 S Hayden, Amarillo Tx.
TELEPHONE: (806) 376-7413
E-MAIL:

During the testimony from the Public. We heard some about the effect on property values with no information on what effect if any it has had at the sites referred in the testimony. As an environmental employee with the state of Texas I heard many many people tell how a new or expanded facility would damage property values. I never saw it happen. 1

We also heard from an organization called Simon Teresa Against Nuclear Dumping or STAND. This organization is not seriously against nuclear dumping. In the time I've been in Amarillo they have never been anything except against Pantex. If they were serious about nuclear dumping why haven't we heard anything from them about the largest stream of nuclear materials going into the local landfills – smoke detectors from households 2

TXD20

TXD20–1 **Socioeconomics**

DOE acknowledges the commentor's observation concerning property values.

TXD20–2 **Other**

DOE acknowledges commentor's views. 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.

August 10, 1998

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

As a citizen of Amarillo, I wish to express my feelings about the location of the disassembly and conversion of nuclear weapons plutonium components ("pits") at the Amarillo Pantex plant. 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. 1

opposed!!!!

Sincerely,

Signature

Amarillo TX. 79101

Address

FD131

FD131–1 **Alternatives**

DOE acknowledges the commentor's opposition to 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.

McMurtry, Leroy
Page 1 of 1

Dear Sirs

There are 2 main resons the pit conversion project Should be given to the Pantex Plant.
#1 The workforce at Pantex is dedicated to doing the best job possible for DOE and all others concerned with this mission
#2 The Pits are already stored here so why risk moving them to another site when Pantex can do the work here. 1

I have worked at Pantex 3yrs and am truely convinced the mission would be a complete success if given to the people of the Panhandle area.

Thank you

If you have any questions for me please call

Leroy McMurtry
Box 1503
Panhandle, Tx 79068
806 537 5703

TXD14

TXD14–1 **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 transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions on facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

I support Pantex and the ability for them to safely dismantle the plutonium pits. I am certain that the contractor will be responsible and accountable to the landowners and the citizens of the area. 1

WD011

WD011–1 **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.

METCALF, STACY
PAGE 1 OF 1

Subject: support for pit assembly | 1

WD019

WD019–1 **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.

Question/ Information Request Card

Name: ROBIN MILLS
Address: HCR 01 BOX 245A
PLAINVIEW TEXAS 79072
Phone: _____ Fax: _____
E-mail: _____
Question/ Request: WHAT IS THE RECORD OF SPILLS AND/OR CONTAMINATION AT OTHER SITES WORLDWIDE THAT HAVE PROCESSED PLUTONIUM. 1

For further information contact:
U.S. Department of Energy, Office of Fissile Materials Disposition, MD-4
Forrestal Building, 1000 Independence Ave., SW, Washington, D.C. 20585
1-800-820-5156

TXD13

TXD13–1 **Other**

The scope of this SPD EIS is focused on analysis of alternatives on whether and how much U.S. surplus plutonium should be used as MOX fuel, which technology should be used for immobilization, where to construct the proposed surplus plutonium disposition facilities that are needed, and where to perform lead assembly fabrication and testing.

Although, DOE does not have specific data on spills or contamination from plutonium processing in other countries, DOE has visited some of these European plants and will use any pertinent experience in the development of its proposed facilities.

MRD INVESTMENTS, L.L.C.
D. EDWARD AND MELVA M. DAVIS
PAGE 1 OF 1

MRD INVESTMENTS, L.L.C.
d/b/a MRD INVESTMENTS (In Missouri) MRDU INVESTMENTS, L.L.C. (In Texas)
905 S. Fillmore Suite 105
P.O. Box 2808
Amarillo, Texas 79101
Office (806) 376-9844 Fax (806) 376-8552

August 11, 1998

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

Ladies and Gentlemen:

We are small business owners here in Amarillo and own several commercial office buildings as well as our home. We appreciate having Pantex located here and want you to know that we sincerely hope that Amarillo is the location chosen for the plant to disassemble and convert nuclear weapons plutonium components. 1

We intend to live in Amarillo for the rest of our lives and look forward to having Pantex be a vital part of our community.

Sincerely,

D. Edward Davis

Melva M. Davis

Melva M. Davis

TXD01

TXD01–1 **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.

August 10, 1998

USDOE
Office of Fissile Materials Disposition
MD-4 Forrestal Building
1000 Independence Avenue, SW
Washington DC 20585

I live in Panhandle TX 10 east of Pantex Plant and work at the plant. I have been there since 1984 and hope to retire from Pantex.

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. 1

People of the Panhandle of Texas have an excellent work ethic. They are proud, dependable people on whom I'd be pleased to place the responsibility of this new effort. We would not let you down.

Sincerely,
Darlene Muna
Box 158
Panhandle TX 79068

TXD15

TXD15–1 **Alternatives**

DOE acknowledges the commentor's support of 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.

NUNN ELECTRIC SUPPLY CORPORATION
JOE D. BREWTON
PAGE 1 OF 2

TEXAS
Amarillo
Abilene
Austin
Lubbock
Odessa (Zimco)
Midland (Builders' Choice)

NUNN

NUNN ELECTRIC SUPPLY CORPORATION

WHOLESALE DISTRIBUTORS

NEW MEXICO
Clovis
Hobbs
Roswell
Alamogordo

August 5, 1998

The Department of Energy
c/o Amarillo Chamber of Commerce
P.O Box 9480
Amarillo, Texas 79105

Dear Sirs,

I am writing you this letter on behalf of the company I work for, Nunn Electric Supply Corporation. Nunn Electric has been a part of the Amarillo economy for more than 70 years and has been fortunate enough to do business with the Pantex facility for more than fifty of those. During that time, we have been directly involved with virtually every area of the Pantex plant and in most cases, three generations of workers. From our viewpoint, there is no industrial facility in this part of the country that has been as involved with the community and as concerned with safety as Pantex.

The plant has constantly concerned itself with liberal upgrades in all electrical areas of the plant. To that point, Pantex was the first DOE site to implement the use of "stand-by" HID lamps for security purposes, a procedure that is now commonplace throughout the nuclear complex as we understand it. They were also the first to use rechargeable alkaline batteries to reduce hazardous waste in that area. The same can be said for their use of low-mercury fluorescent and HID lamps, which again shows their commitment not only to a safe working environment, but the safety of the entire panhandle area as well. 1

These examples are but a few of the many electrical upgrades that Pantex has put into practice that we (as only one of hundreds of their vendors) know of. Pantex has an outstanding safety record with full-time union safety officers with whom these critical issues may be discussed and resolved. It is our understanding that the alternate site has nothing like this is place and no plans for it in the foreseeable future.

FD004

FD004–1 **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.

On July 1, 1998 Nunn Electric was awarded the first Vendor Managed Inventory contract in the history of the DOE nuclear complex. The estimated cost-savings for electrical supplies and their related expenses for the first year will be in excess of $500,00.00. We can think of no better way to demonstrate this facility's commitment to cost-savings and streamlined efficient management. To our knowledge, there is no another plant in this part of the panhandle that has exhibited such forward thinking.

We know that the plant enjoys the support of some 80% of the surrounding community and it is said that Pantex is ultimately responsible for one out of every ten jobs in this area. The influx of 450 new jobs with the PDCF located here would be an invaluable shot in the arm to our local economy. We would hope that the DOE would look most favorably on the selection of Pantex for the critical PDCF and consider the overall impact that placing this facility here at Pantex - the best location in the nuclear complex. 1

Most Cordially Yours,

Joe D. Brewton
Amarillo Division Manager

FD004

Pantex doesn't deserve MOX

Richard L. Geddes

NORTH AUGUSTA, S.C. — I read your recent editorial regarding the public hearings for selecting the site for the Department of Energy's pit disassembly and conversion mission. These important hearings are being held at each of the potentially affected sites, but most significantly at Amarillo and in North Augusta, S.C.

I too encourage Panhandle residents to participate in this important decision. I also think it is important they not be blinded by the possibility of federal government dollars and jobs but really consider the facts and what is good for the country.

The disposition of surplus weapons-usable plutonium is an issue of international importance. We, in conjunction with the Russians, need to get on with this task in a safe and efficient manner.

I have worked in the plutonium processing area of the Savannah River Site for about 20 years. I am well aware of the technology, requirements and issues involved in plutonium disposition. Dismantling pits and converting the plutonium to an oxide is the necessary first step in the disposition process. Nothing else can happen until this occurs.

What is the best way to make this happen? Let's look at the facts.

Handling plutonium is a complicated task. The DOE sites which made and processed plutonium (Hanford, Rocky Flats and Savannah River) are all much larger and more complex operations than Pantex. Each of them has a legacy from the plutonium era which, in total, will cost all of us hundreds of billions of dollars to remediate and will take decades to complete.

Handling plutonium requires extensive support facilities, skills and oversight — generally called infrastructure. There are not "modest differences" between the plutonium infrastructure of Pantex and SRS, as DOE recently said. SRS is a 300-square-mile complex of 14,000 employees engaged in major nuclear processing operations. It has a fully integrated, self-contained nuclear waste management system capable of handling all forms of nuclear waste, operates the nation's only tritium purification and loading operation, and will be the site of the next generation of tritium production.

SRS produced nearly half of the plutonium which is no longer needed. In 1997, DOE called SRS "a plutonium competent site with the most modern, state-of-the-art storage and processing facilities" in the complex.

Pantex has no experience, capability or infrastructure with plutonium, only in handling and storage of sealed plutonium weapons components.

Handling plutonium creates a costly future legacy. DOE needs to explain why it is considering creating a new plutonium processing site. The determination that the Pantex site is "equally preferred" for the pit disassembly and conversion mission represents a dramatic repudiation of DOE policy.

In 1996, DOE announced 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." With DOE engaged in a multi-decade program to downsize, consolidate and remediate existing plutonium sites, the wisdom of continuing this policy is obvious.

Consolidation of the three major elements of the Plutonium Disposition program (pit disassembly, MOX and immobilization) is intuitively cost-effective. How much can be saved is a point of contention, but the fact that savings will accrue from co-locating all facilities is indisputable.

Storage of sealed weapons components containing plutonium metal is very different than processing, packaging and shipping dispersible plutonium oxide. DOE is proposing to invent a new process, build a new facility, create and operate a plutonium infrastructure, and eventually clean up and remove a plutonium processing operation so it can make a larger number of shipments of dispersible plutonium oxide to Savannah River for disposition. Alternatively, DOE could pack the pits and ship them — fewer shipments, more safety. SRS can make storage available, and the processing and disposition of these pits is just an extension of routine operations.

What is the logic of locating this mission at Pantex? Technically, financially, safety-wise and environmental protection-wise, there is none.

Jobs and federal dollars — that's the issue. But is plutonium, with its proliferation and safety issues, the right arena to be searching for federal pork? Our collective good sense should tell us no.

The Globe-News said that Pantex "deserves" this mission for being such a good neighbor over the years. I'm sure it has been.

I wish the plant and its employees well. But for plutonium processing, I don't think so.

Richard L. Geddes of North Augusta, S.C., worked in plutonium processing at the Savannah River Site.

Aug 16, 1998 Amarillo Globe News

FD144

1

FD144–1 Other

DOE acknowledges receipt of the commentor's article. DOE acknowledges the commentor's support for siting the plutonium disposition facilities at SRS. Decisions on the siting of surplus plutonium disposition facilities will be based on 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.

PANHANDLE 2000
P.O. Box 9480 Amarillo, Texas 79105 (806)373-7926

September 8, 1998

DOE Office of Fissile Material Disposition
c/o SPD EIS
U.S. Department of Energy
P.O. Box 23786
Washington, DC 20026-3786

ATTENTION: Bert Stevenson, NEPA Compliance Officer

Re: Comment on DOE's Draft Surplus Plutonium Disposition Environmental Impact Statement

Dear Mr. Stevenson:

We would like to take this opportunity to comment on DOE's *Draft Surplus Plutonium Disposition Environmental Impact Statement.* As co-chairs of Panhandle 2000, a group of Amarillo-area citizens interested in the environmentally sound retention and expansion of Pantex, we would like to express our support for siting the proposed new pit disassembly and conversion mission contemplated in this Draft PEIS at Pantex.

Throughout DOE's EIS process for pursuing plutonium storage and disposition options, the clearly identified goals have been to provide the highest level of security to minimize theft, diversion, or accidental exposure and to encourage Russia to reciprocate efforts to dispose of its plutonium in like manner. For these reasons, the preferred alternatives chosen in the *Record of Decision for the Storage and Disposition of Weapons-Usable Fissile Materials Environmental Impact Statement* chose a dual track approach of vitrification and MOX fuel fabrication. Viewing plutonium as an asset rather than waste provides the potential for taxpayers to recoup some economic benefit from their investment in the Cold War through use of MOX fuel in commercial reactors. Through this means, we are also encouraging Russia to dispose of their excess plutonium in a way that will provide them parallel economic nonproliferation benefits. 1

The Draft PEIS announced the Savannah River Site as the preferred location for the MOX fuel fabrication facility as well as the plutonium immobilization facility. Additionally, the Draft PEIS lists two alternatives for the siting pit disassembly and conversion. We would like to state for the record that we strongly support

MD168

MD168–1 **Alternatives**

DOE acknowledges the commentors' support for siting the pit conversion facility at Pantex. 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, not to derive economic benefit from the use of MOX fuel. By working in parallel with Russia to reduce stockpiles of excess plutonium, the United States can reduce the chance that weapons-usable nuclear material could fall into the hands of terrorists or rogue states and help ensure that nuclear arms reductions will never be reversed.

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.

the alternative which proposes siting the plutonium disassembly and conversion facility at Pantex. 1

The stated objective of disposing of excess plutonium is to reduce threat of international proliferation, as reaffirmed in President Clinton's 1993 Nonproliferation and Export Control Policy, the 1994 National Academy of Sciences report on plutonium management and disposition, and the January 1997 DOE report on Nonproliferation and Arms Control Assessment. The PEIS has apparently lost sight of this objective. Exposing plutonium to unnecessary transportation and the accompanying risks is inconsistent with this objective, but that is precisely the course of action contemplated by DOE if it chooses to site pit conversion at a site other than Pantex.

The argument for this alternative is compelling: Pantex currently serves DOE and the nation as the primary site for nuclear weapons dismantlement and safekeeping of weapons-ready nuclear materials. For over 40 years, the Pantex Plant has been in the business of taking weapons apart and demilitarizing their components. This mission is a natural and common-sense extension of what is already done at Pantex. Because it has always done this type of work, Pantex has a safe and solid history of strict production operations management, developed through years of experience handling more pits, more often than any other site.

Siting the disassembly and conversion plutonium at Pantex will eliminate the need for unnecessary transportation which poses a legitimate national and international threat. Transportation of pits from Pantex in unconverted form exposes them to potential theft, risk of accident and exposure, and costs associated with additional security measures and packaging. The recent aggression against our embassies abroad only serves to emphasize that we cannot afford to lower our guard against such threats. Indeed, we must be vigilant and mindful of the tremendous potential for harm that would result if classified nuclear materials were to fall into the wrong hands. Pantex has the most modern safeguards and security system, and the nation's top rated guard force. The plant's emergency management system was recognized as the "Standard Setter" after joint assessment by Defense Programs and Nonproliferation and National Security. As a result, classified weapons components located at Pantex are more threat-resistant than anywhere else in the complex. By performing pit disassembly at Pantex and then shipping demilitarized and unclassified plutonium oxide, DOE can eliminate these unnecessary risks. To abandon the record at Pantex and contemplate transfer of the pits to a site and facilities not accustomed to this function would precipitate the needless costs and risks associated with the transport and duplication of workers and facilities. 2

Additionally, DOE cost estimates show that if the choice is made ignore the risks and package pits to transport them across the country, the price tag of 3

MD168

MD168–2 **Nonproliferation**

DOE acknowledges the commentors' support for Pantex and appreciates the input regarding the capabilities at the site. Minimizing transportation risk was one of the considerations in selecting both Pantex and SRS as the preferred sites for the pit conversion facility. Although siting the pit conversion facility at Pantex would reduce the transportation of pits in unconverted forms, the plutonium dioxide that is produced at the facility would still have to be transported to the immobilization and/or MOX facilities.

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.

MD168–3 **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.

disassembly and conversion would increase by $70 to $85 million. It is doubtful whether this figure incorporates the considerable training cost that will be incurred to recreate the pit packaging and unpacking expertise that exists today only at Pantex. Furthermore, we are aware of claims being made by proponents of the Savannah River Site that siting disassembly and conversion in South Carolina would result in savings of nearly $1.6 billion. Such claims are unsubstantiated and preposterous considering the total estimated cost of the entire mission, wherever located, equals $920-$960 million. We raise these issues to point out that, while many claims (factual and otherwise) are being made regarding the merits of different sites, one truth about costs remains. Plutonium pits are located at Pantex and moving them anywhere else for a mission that can be performed here creates unnecessary expense in terms of both dollars and the inherent proliferation risk to Texas and our country. 3

We regret that DOE did not attach this same logic for the MOX production facility. If it had, the arguments are clear for co-locating the pit conversion and MOX fuel fabrication facility at the existing pit storage site, the Pantex plant. 4

Finally, polls demonstrate the continued overwhelming support Pantex enjoys from local residents and state and federal elected officials. These surveys indicate that the plant enjoys support of more than 80% among the residents in the Amarillo area. Provided the new missions can be carried out safely and with minimal environmental impact, this support would reduce the potential for delay in proceeding with new disposition efforts. The plant also enjoys strong bi-partisan support of the 32-member strong Texas Congressional Delegation. DOE must have broad-based political support for its plutonium disposition strategy to succeed. Placing pit disassembly at Pantex only strengthens that prospect. 1

For these reasons, Pantex clearly is the safest and best-suited alternative and we respectfully urge DOE to designate it as the preferred alternative site for the pit disassembly and conversion facility.

Yours truly,

Jerome W. Johnson
Co-Chair, Panhandle 2000

Wales Madden Jr.
Wales Madden, Jr.
Co-Chair, Panhandle 2000

MD168

MD168–4 **Alternatives**

DOE acknowledges the commentors' support for collocating the pit conversion and MOX facilities at Pantex.

PANHANDLE AREA NEIGHBORS AND LANDOWNERS
DORIS AND PHILLIP SMITH
PAGE 1 OF 4

September 16, 1998

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

Dear Sirs:

As Co-Chairs of the Panhandle Area Neighbors and Landowners (PANAL) Organization, we are writing to voice our concern with the Plutonium Pit Disassembly and Conversion facility which the DOE is considering locating at Pantex. Our organization of agricultural producers, processors, neighbors and community business leaders does not support any type of plutonium processing in this agricultural producing area of Texas.

Our products are sent world wide to feed the hungry and to clothe the peoples of the world - why, under any circumstances, would the DOE even consider placing such a devastating process in the midst of food production? Why would DOE jeopardize the people, land, water, air and the products that have made and continue to be the support for the Texas Panhandle? Why does DOE continue to harrass this community with such horrendous missions for Pantex without even one thought as to the damage which could be reaked on the High Plains of Texas. Do you not understand that we have a strong healthy relationship with the land and we strive constantly to keep this land free of contamination and in a wholesome condition suitable for producing food?

PANAL considers the Plutonium Pit Disassembly and Converersion Facility (PDCF) to be the most outrageous mission /facility to be forced on this community. Pantex has never processed plutonium and does not have the massive contamination problems as those sites which have handled this material processing. In the words of Ann Loadholt (Chair of the SRS CAB) *"Concerning pit disassembly...should Pantex be chosen...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 cleanup that ultimately will be required."* When people from other areas even see the hypocrisy of the siting of these missions at Pantex, why does DOE not see this? Are you just not looking at all the issues or are you blinded by your own stupidity? 1

Pantex is a fraction of the size of other plutonium sites, new environmental risks associated with the processing of plutonium oxide powder, as well as health risks would be incurred by this community due to the close proximity of the people to the site. The unreported air contaminants of radioactive tritium and highly toxic beryllium would be pumped from a smokestack and fall on our Panhandle lands contaminating our products and livestock, thus making them unmarketable. Do you want another Russia on your hands? Their products are so contaminated by the nuclear weapons productions that the people cannot eat them and economic devastation is the result. Is that what DOE is trying to achieve here? Such negative consequences to people and the farmland are much more likely to occur on a small, open, windy site such as Pantex, than at a larger, more secluded site - a site large enough so that the smokestack will belch forth its bile on the site itself and not on the surrounding stakeholders and property.

Why do you think that plutonium processing can be done safely at Pantex when it has never been done safely or without contaminating the environment at any other DOE site? The technologies just are not there - the DOE has gone to great lengths to deceive the public with half truths and lies about new advancements in technologies, the result is increased distrust of DOE by our community of stakeholders. We have witnessed your actions over the past eight years, when we first became involved in this issue. DOE has assured the public of their openness and theory of public involvement, however DOE has failed miserably on both accounts. There is no openness and no effort to engage the public in "meaningful public participation". 2

MD284

MD284–1 **Human Health Risk**

DOE acknowledges the commentors' opposition to siting the pit conversion facility at Pantex. Although Pantex is smaller in overall size in comparison with the other candidate sites, 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. Section 4.26.3.2 analyzes impacts to the environment (including contamination to the Ogallala aquifer) due to construction and normal operation of a pit conversion facility at Pantex. 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. Appendix J.3 includes an analysis of potential contamination of agricultural products and livestock and consumption of these products by persons living within an 80-km (50-mi) radius of Pantex. 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.

Ingestion doses at Pantex were assessed for eight different food categories: leafy vegetables, root vegetables, fruits, grains, milk, meat, poultry, and eggs. Public doses incurred from the uptake of these foodstuffs were determined to be well below Federal, State, and local regulatory limits; therefore, potential radiological impacts to local prime farmlands would be essentially nonexistent.

While it is true that the pit conversion facility is the first consolidated facility for accomplishing this mission on a large scale, the processes that would be used in this facility are not entirely new. Many of these processes are in use at LANL and LLNL. In addition, DOE has recently started a pit disassembly and conversion demonstration project at LANL, where processes will be further developed and tested.

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 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.

MD284–2 **General SPD EIS and NEPA Process**

DOE acknowledges the commentors' views. The analyses in Chapter 4 of Volume I show that construction and normal operation of either the pit conversion facility or the MOX facility at Pantex would have no major impacts on human health or the environment.

The comment period for the SPD Draft EIS was from July 17 through September 16, 1998. During that time, DOE convened five public hearings, including one in Amarillo, Texas, to obtain oral and written comments from the public. These hearings were open to all individuals and organizations, and their format was intended to encourage public discussion and interaction. All comments were given equal consideration and responded to.

PANHANDLE AREA NEIGHBORS AND LANDOWNERS
DORIS AND PHILLIP SMITH
PAGE 3 OF 4

The siting of the PDCF over the Ogallala Aquifer, our source of water, is repugnant with DOE assertions of protecting the environment. Placing plutonium processing over the water supply of the Texas Panhandle and eleven other cities and towns further south is unacceptable. Pantex has already been the source of heavy contamination to the water source both beneath the site and offsite to the east on adjacent private porperty. To cleanup the aquifer is impssible, adding plutonium processing and associated wastes to the problem will only compound the contamination issue. What do you propose to prevent this further contamination to the Ogallala Aquifer from happening? What proven and demonstrated technologies do you claim will keep the Ogallala Aquifer from being contaminated? 3

Our community has been saddled with storage of plutonium pits in old, World War II bunkers which are not suitable for the storage of the most deadly material in the world. There are innumerable problems associated with the storage which have not been corrected - since the DOE has not accomplished this mission of safely storing the plutonium pits, then how in the world do you think you can safely process this material? We are tired of your claims, assertions and promises, just leave the Texas Panhandle alone, take care of the problems you now have at Pantex and do not dump anymore missions on this small site. 4

As the agricultural community which surrounds the Pantex site - we beg you to please use common sense in your decision of siting these new missions. We are laboring to produce food to feed and sustain the world, while you are producing weapons of mass destruction to kill and mame the world, this dichotomy has to end.

With the Cold War over, DOE is facing the time when this maddness could all be stopped - do you have the courage and the intregity to be truthful to the American taxpayers and say ..this is the end, we will not waste more of your tax dollars - there will be no more weapons, no more processing - we are stopping...?

Thank you for the opportunity to comment.

Sincerely,

Doris and Phillip Smith, Co-Chairs
Panhandle Area Neighbors and Landowners

MD284

MD284–3 **Water Resources**

DOE acknowledges the commentors' concerns regarding potential contamination of the Ogallala aquifer. As described in Section 4.17.2.2, wastes would be managed in accordance with current site practices. No radioactive or hazardous wastes would be disposed of at Pantex. Wastes would be treated and stored in accordance with all applicable regulations and permits. In addition, plutonium moves extremely slowly through soils and groundwater. In the unlikely event of an accident, plutonium would be contained in surface soils and remediated before it could travel into the Ogallala aquifer.

The remainder of this comment is addressed in response MD284–1.

MD284–4 **DOE Policy**

To avoid contamination that has occurred in the past at some DOE sites, DOE would design, build, and operate the proposed surplus plutonium disposition facilities in compliance with today's strict environmental, safety, and health requirements.

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

Worker exposure estimates attributable to the decision to repackage pits in AL–R8 sealed insert containers were incorporated in the revised Section 2.18 and Appendix L.5.1.

The issues raised in this comment relate to pit storage decisions made in the *Storage and Disposition PEIS* and 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). DOE is considering leaving the repackaged surplus pits in Zone 4 at Pantex for long-term storage. An appropriate environmental review will be conducted when the specific proposal for this change has been developed; addressing, for example, whether additional magazines need to be air-conditioned. The analysis in this SPD EIS assumes that the surplus pits are stored in Zone 12 in accordance with the ROD for the *Storage and Disposition PEIS*.

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.

PANTEX
TIM FLOWERS
PAGE 1 OF 1

I am a worker at Pantex and have been there for 17 years now and I wanted to say that I very much support the Surplus Plutonium Disposition Draft Environmental Impact Statement or commonly know as the Pit Disassembly at Pantex. Thank you. Tim Flowers 1

WD018

WD018–1 **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.

I feel that Pantex is the best location for the pit disassembly and conversion facility. We are centrally located in the U.S. and we are the final disassembly point for the weapons; so the pits are already here. I have been with this company for seventeen years and it is very safety oriented. Also the citizens of Amarillo trust Pantex because of their long standing safety record. Thank you for considering our Pantex plant for this important job. Sincerely, Jim Harbin 1

WD001

WD001–1 **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.

PEDIGREW, HAL
PAGE 1 OF 1

Yes, my name is Hal Pedigrew. I live at 5501 Ranchview Drive in Amarillo. The area code is 79124 and I would like to get a copy of that documentation. I'd also like to voice my opinion that I would like to have that facility put anywhere else in the United States but here. Thank you. 1

PD016

PD016–1 **Alternatives**

DOE acknowledges the commentor's opposition to 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.

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

Dear Department of Energy, Office of Fissile Materials Disposition:

I do not support plutonium processing at the Pantex Plant. In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy prudently decided against locating one plutonium processing facility (MOX fuel fabrication) at the Pantex Plant. For the following additional reasons, a Plutonium Pit Disassembly and Conversion facility also should not be located at Pantex: 1

Pantex Should Not Become the Next Rocky Flats

Pantex has never processed plutonium. The Pantex Superfund site has so far apparently escaped the type of radioactive contamination found at plutonium processing sites like Rocky Flats in Colorado and Hanford in Washington.

Risks That Are Unknown Are Too High

The Pantex Plant occupies an area that is a fraction of the size of other plutonium sites.

SIZE MATTERS: A Comparison of the Area of the Four Candidate Sites (Square Miles)			
Pantex	Savannah River Site	Idaho National Engineering Lab.	Hanford
23	309	890	560

2

The technologies proposed in the Plutonium Pit Disassembly and Conversion Facility are undemonstrated and unproven. It is unacceptable to have plutonium operations above the Ogallala Aquifer and only one mile from where people live and work in a vibrant agricultural producing area. The Pantex legacy already includes heavy contamination in a perched layer of groundwater less than one hundred feet above the Ogallala Aquifer. This pollution extends from under the Pantex Plant to adjacent private property and the real impacts remain unknown. The risk of any additional groundwater pollution is unacceptable in an agricultural region.

Common sense dictates that negative consequences to people and farmland from nuclear accidents are far more likely in a small, open, windy location like Pantex. The Department of Energy has acknowledged that the most visually unappealing feature of the plutonium facilities will be their smokestacks. Visual blight will be a minor inconvenience compared to the air pollutants--many of them radioactive--expected to escape into the atmosphere daily through smokestack filters. Routine air emissions of tritium, plutonium, americium, and beryllium constitute unacceptable new hazards to the Texas Panhandle. 3

MD114

MD114–1 **Alternatives**

DOE acknowledges the commentors' opposition to siting the proposed surplus plutonium disposition facilities at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating the proposed facilities on health, safety, and the environment at Pantex would likely be minor. To avoid contamination that has occurred in the past at some DOE sites, DOE would design, build, and operate the proposed facilities in compliance with today's strict environmental, safety, and health requirements. 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.

MD114–2 **Human Health Risk**

Although Pantex is smaller in overall size in comparison with the other candidate sites, 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 (e.g., see Section 4.6).

While it is true that the pit conversion facility is the first consolidated facility for accomplishing this mission on a large scale, the processes that would be used in this facility are not entirely new. Many of these processes are in use at LANL and LLNL. In addition, DOE has recently started a pit disassembly and conversion demonstration project at LANL, where processes will be further developed and tested.

Section 4.26.3.2 analyzes impacts to the environment (including contamination to the Ogallala aquifer) due to construction and normal operation of a pit conversion facility at Pantex. 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. Appendix J.3 includes an analysis of potential contamination of agricultural products and

livestock and consumption of these products by persons living within an 80-km (50-mi) radius of Pantex. 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. This analysis indicates that impacts of operating the pit conversion facility on agricultural products, livestock, and human health at Pantex would likely be minor.

MD114–3 **Human Health Risk**

It is DOE policy to operate in compliance with all applicable air quality requirements and to protect human health and the environment. DOE takes into consideration pollution reduction techniques to minimize air releases when designing, constructing, and operating its facilities. It also considers aesthetic and scenic resources in the design, location, construction, and operation of facilities. Potential concentrations of air pollutants at Pantex for the various alternatives have been estimated, considering appropriate local meteorology and other data associated with the area. Because the releases from the pit conversion and MOX facilities would be very small (see Appendix J.3.1.4), estimates of resultant radiological health risks are small. As indicated in Section 4.17.2.4, the maximum possible dose delivered to a member of the public during normal operations of the MOX and pit conversion facilities at Pantex would be 0.068 mrem/yr, 0.02 percent of the dose that individual would receive annually from natural background radiation. The estimated dose to the public from radiological emissions (e.g., amercium, tritium, and plutonium) would be 0.077 person-rem/yr which would result in an increase of 2.9×10^{-3} LCFs over the 10-year operating life of the pit conversion facility. Any new facilities that might be built would be within existing site boundaries, and would be matched aesthetically with the current plant to limit potential visual impacts.

There is Valid, Strong Criticism of Safety in the Storage of Plutonium at Pantex

Since Pantex became the nation's long-term storage location for up to 20,000 plutonium pits, promises to improve safety conditions have not happened. The U.S. Government Accounting Office and the Defense Nuclear Facilities Safety Board have issued reports critical of plutonium storage safety at Pantex. Fifty million taxpayer dollars were spent on a failed plutonium pit container program (the AT-400A) and the plan to move over 10,000 pits into a safer remodeled building (Building 12-66) has also failed.

When it comes to plutonium pit storage problems, Panhandle residents are back to square one. The plutonium remains in old, unsuitable, corroding storage containers and in 35-55 year old "bunkers" that the Department of Energy promised were for "temporary" use. Plutonium that is supposed to be stored in a stable environment now sits in the bunkers--all but three without air conditioning--even as the Texas Panhandle experiences a spell of more than 40 consecutive days of 90+ degree temperatures, and more than 20 days this summer with thermometers registering 100+ degrees. If the Department of Energy cannot accomplish the job of safely storing Pantex plutonium in the most stable environment, there is no reason to accept its unsubstantiated assurances to safely process deadly plutonium powders at Pantex. 4

Thank you for this opportunity to comment.

Sincerely:

Darwin Pluhar
Jennifer Pluhar

Please do not process plutonium at Pantex! Our water from the Ogallala Aquifer is the life blood of our nation's bread basket! 35% of the U.S. supply of beef is produced in the Texas Panhandle. Our crops, our livestock, and we depend on that water! No to Plutonium Processing! 5

MD114

MD114–4 **DOE Policy**

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

Worker exposure estimates attributable to the decision to repackage pits in AL–R8 sealed insert containers were incorporated in the revised Section 2.18 and Appendix L.5.1.

The issues raised in this comment relate to pit storage decisions made in the *Storage and Disposition PEIS* and 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). DOE is considering leaving the repackaged surplus pits in Zone 4 at Pantex for long-term storage. An appropriate environmental review will be conducted when the specific proposal for this change has been developed; addressing, for example, whether additional magazines need to be air-conditioned. The analysis in this SPD EIS assumes that the surplus pits are stored in Zone 12 in accordance with the ROD for the *Storage and Disposition PEIS*.

MD114–5 **Human Health Risk**

This comment is addressed in responses MD114–1 and MD114–2.

POTTER COUNTY
HONORABLE ARTHUR WARE ET AL.
PAGE 1 OF 2

County of Potter
State of Texas
Amarillo Texas

ARTHUR WARE
POTTER COUNTY JUDGE

August 25, 1998

DOE Office of Fissile Material Disposition
c/o SPD EIS
U.S. Department of Energy
P. O. Box 23786
Washington, DC 20026-3786
ATTENTION: Mr. Bert Stevenson, NEPA Compliance Officer

Re: DOE's Draft Surplus Plutonium Disposition Environment Impact Statement

Dear Mr. Stevenson:

First and foremost, we are adamant that any current and future functions at Pantex be conducted in a safe and environmentally sound manner. Our first priority is to ensure that expansion at Pantex does not impair the health or safety of area residents or have an adverse effect on the environment. These goals serve as a prerequisite to any current or future activities at Pantex. 1

We are aware that DOE has selected the Savannah River Site (SRS) as the preferred alternative for the MOX fuel fabrication facility and is considering SRS, along with Pantex, as the location for the disassembly/conversion mission.

We wish to focus my comments on the selection of Pantex as the preferred site for locating the plutonium pit disassembly and conversion facility. We are concerned that locating the conversion mission at a site other than Pantex would not only increase the hazards of dealing with plutonium but would also ignore the facts that make Pantex the site most capable of ensuring that disposition goals are met with the utmost attention to economic and safety considerations. 2

MD122

MD122–1 **Alternatives**

According to the analyses reflected in Sections 4.6 through 4.8, environmental impacts of the proposed action on Pantex under any alternative would likely be minor. DOE is committed to ensuring that public health and safety are protected wherever the proposed surplus plutonium disposition facilities are located.

MD122–2 **Alternatives**

DOE acknowledges the commentors' support for siting the pit conversion facility at Pantex. 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 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.

When considering the proliferation risks involved in unnecessarily transporting a large number of classified plutonium pits across the country from Pantex, it makes budgetary and policy sense to site disposition functions where storage already exists. First, due to its cheaper labor costs and utility rates, and water and land availability, Pantex clearly is the most cost-effective site over the life of the program than any other site under consideration. Second, transportation of plutonium in non-classified form (after disassembly and conversion at Pantex) to the SRS is far preferable to the perils that would be incurred by shipping plutonium in a weapons-ready form. Pantex has the necessary safety, security, and surveillance capabilities to accommodate an expanded role. Third, it is in the best interests of the United States to engage Russia in bilateral demilitarization and inspections independent of the politically contentious MOX fuel fabrication process. It will also be much easier to track converted plutonium pits for IAEA and international inspections if these activities are undertaken at the site of original pit storage. 2

The Pantex plant enjoys tremendous public and bipartisan political support for new missions and could provide them at the lowest additional costs to the taxpayers. To accomplish its disposition goals, DOE must have strong, broad-based political support. Bringing in the support of Texas Senators and Congressmen will help ensure that DOE disposition initiatives succeed.

Bases upon these reasons, we respectfully urge DOE to designate Pantex as the site for the pit assembly and conversion facility.

Sincerely,

Arthur Ware
County Judge

JOHN STRADLEY,
COMMISSIONER, PRECINCT 1

MANNY PEREZ,
COMMISSIONER, PRECINCT 2

STRICK WATKINS,
COMMISSIONER PRECINCT 3

MD122

PROFFITT, GARY
PAGE 1 OF 1

I am very much in favor of having the pit disassembly and conversion at Pantex where it will be done right the first time. 1

WD009

WD009–1 **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 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. 1

The Pantex Plant has provided jobs for my family since 1980, 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,

Don Ray

Don Ray

MD024

MD024–1 **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.

REAM, JOE
PAGE 1 OF 1

1901 PHILADELPHIA ST.
AMARILLO, TEXAS 79103
AUGUST 10, 1998

U.S. DEPARTMENT OF ENERGY
OFFICE OF FISSILE MATERIALS DISPOSITION
MD-4 FORRESTAL BUILDING
1000 INDEPENDENCE AVE.,SW
WASHINGTON, D.C. 20585

DEAR SIRS:

AS A CITIZEN OF AMARILLO, WE URGE YOU TO LOCATE THE PIT DISASSEMBLY AND CONVERSION FACILITY AT THE PANTEX PLANT FOR ECONOMICAL AND SAFETY REASONS.

PANTEX ALREADY HAS ADEQUATE STORAGE SPACE FOR THE CONVERTED PLUTONIUM THAT WOULD BE VERY EXPENSIVE TO CONSTRUCT ELSE WHERE AND WILL NOT ENTAIL TRANSPORTING THE 'PITS' ACROSS THE COUNTRY, WHICH IS COSTLY AND SUSCEPTABLE TO TRANSPORTATION ACCIDENTS.

PANTEX PLANT EMPLOYEES HAVE MORE EXPERIENCE HANDLING PLUTONIUM PITS THAN ANY OTHER D.O.E. SITE AND HAS AN OUTSTANDING SAFETY RECORD. ALSO PANTEX ALREADY HAS TRAINED TECHNICAL PERSONNEL THAT ARE CERTIFIED TO PERFORM THE 'GLOVEBOX' WORK REQUIRED FOR THIS TYPE WORK. 1

SECURITY AT THE PANTEX PLANT IS SECOND TO NONE COMPARED TO ALL THE OTHER DEPARTMENT OF ENEGERY FACILITIES.

THE PANTEX PLANT ALSO HAS THE SUPPORT OF THE RESIDENTS OF THE COMMUNITY AND THE LOCAL AND STATE ELECTED OFFICIALS ALONG WITH THE TEXAS CONGRESSIONAL DELEGATION.

AGAIN, WE SINCERELY URGE YOU TO LOCATE THE PIT DISASSEMBLY AND CONVERSION FACILITY AT THE PANTEX PLANT.

SINCERELY YOURS,

JOE REAM

JR/1

FD150

FD150–1 **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 FISSLE MATERIALS DISPOSITION
MD-4 FORRESTAL BUILDING
1000 INDEPENDENCE AVE.,SW
WASHINGTON, DC 20585

DEAR SIRS:

I AM A LONG TIME RESIDENT OF AMARILLO AND FULLY SUPPORT YOUR LOCATING THE PIT DISASSEMBLY AND CONVERSION FACILITY AT THE PANTEX PLANT LOCATED NEAR AMARILLO, TEXAS. 1

SINCERELY,

Oleta Ream

OLETA REAM
1901 PHILADELPHIA
AMARILLO, TEXAS 79103

FD232

FD232–1 **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.

ROGERS, ERIN
PAGE 1 OF 3

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

Dear Department of Energy, Office of Fissile Materials Disposition:

I do not support plutonium processing at the Pantex Plant. In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy prudently decided against locating one plutonium processing facility (MOX fuel fabrication) at the Pantex Plant. For the following additional reasons, a Plutonium Pit Disassembly and Conversion facility also should not be located at Pantex: 1

Pantex Should Not Become the Next Rocky Flats

Pantex has never processed plutonium. The Pantex Superfund site has so far apparently escaped the type of radioactive contamination found at plutonium processing sites like Rocky Flats in Colorado and Hanford in Washington.

Risks That Are Unknown Are Too High

The Pantex Plant occupies an area that is a fraction of the size of other plutonium sites.

SIZE MATTERS: A Comparison of the Area of the Four Candidate Sites (Square Miles)			
Pantex	Savannah River Site	Idaho National Engineering Lab.	Hanford
23	309	890	560

2

The technologies proposed in the Plutonium Pit Disassembly and Conversion Facility are undemonstrated and unproven. It is unacceptable to have plutonium operations above the Ogallala Aquifer and only one mile from where people live and work in a vibrant agricultural producing area. The Pantex legacy already includes heavy contamination in a perched layer of groundwater less than one hundred feet above the Ogallala Aquifer. This pollution extends from under the Pantex Plant to adjacent private property and the real impacts remain unknown. The risk of any additional groundwater pollution is unacceptable in an agricultural region.

Common sense dictates that negative consequences to people and farmland from nuclear accidents are far more likely in a small, open, windy location like Pantex. The Department of Energy has acknowledged that the most visually unappealing feature of the plutonium facilities will be their smokestacks. Visual blight will be a minor inconvenience compared to the air pollutants--many of them radioactive--expected to escape into the atmosphere daily through smokestack filters. Routine air emissions of tritium, plutonium, americium, and beryllium constitute unacceptable new hazards to the Texas Panhandle. 3

MD063

MD063–1 **Alternatives**

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Pantex. As described in Chapter 4 of Volume I and summarized in Section 2.18, potential impacts of any of the proposed activities during routine operations at any of the candidate sites would likely be minor. To avoid contamination that has occurred in the past at some DOE sites, DOE would design, build, and operate the proposed surplus plutonium disposition facilities in compliance with today's strict environmental, safety, and health requirements. Decisions on the surplus plutonium disposition program at Pantex will be based upon 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.

MD063–2 **Human Health Risk**

Although Pantex is smaller in overall size in comparison with the other candidate sites, 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 (e.g., see Section 4.6).

While it is true that the pit conversion facility is the first consolidated facility for accomplishing this mission on a large scale, the processes that would be used in this facility are not entirely new. Many of these processes are in use at LANL and LLNL. In addition, DOE has recently started a pit disassembly and conversion demonstration project at LANL, where processes will be further developed and tested.

Section 4.26.3.2 analyzes impacts to the environment (including contamination to the Ogallala aquifer) due to construction and normal operation of a pit conversion facility at Pantex. 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. Appendix J.3

includes an analysis of potential contamination of agricultural products and livestock and consumption of these products by persons living within an 80-km (50-mi) radius of Pantex. 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. This analysis indicates that impacts of operating the pit conversion facility on agricultural products, livestock, and human health at Pantex would likely be minor.

MD063–3 **Human Health Risk**

It is DOE policy to operate in compliance with all applicable air quality requirements and to protect human health and the environment. DOE takes into consideration pollution reduction techniques to minimize air releases when designing, constructing, and operating its facilities. It also considers aesthetic and scenic resources in the design, location, construction, and operation of facilities. Potential concentrations of air pollutants at Pantex for the various alternatives have been estimated, considering appropriate local meteorology and other data associated with the area. Because the releases from the pit conversion and MOX facilities would be very small (see Appendix J.3.1.4), estimates of resultant radiological health risks are small. As indicated in Section 4.17.2.4, the maximum possible dose delivered to a member of the public during normal operations of the MOX and pit conversion facilities at Pantex would be 0.077 mrem/yr, 0.02 percent of the dose that individual would receive annually from natural background radiation. The estimated dose to the public from radiological emissions (e.g., amercium, tritium, and plutonium) would be 0.58 person-rem/yr which would result in an increase of 2.9×10^{-3} LCFs over the 10-year operating life of the pit conversion facility. Any new facilities that might be built would be within existing site boundaries, and would be matched aesthetically with the current plant to limit potential visual impacts.

ROGERS, ERIN
PAGE 3 OF 3

There is Valid, Strong Criticism of Safety in the Storage of Plutonium at Pantex

Since Pantex became the nation's long-term storage location for up to 20,000 plutonium pits, promises to improve safety conditions have not happened. The U.S. Government Accounting Office and the Defense Nuclear Facilities Safety Board have issued reports critical of plutonium storage safety at Pantex. Fifty million taxpayer dollars were spent on a failed plutonium pit container program (the AT-400A) and the plan to move over 10,000 pits into a safer remodeled building (Building 12-66) has also failed.

When it comes to plutonium pit storage problems, Panhandle residents are back to square one. The plutonium remains in old, unsuitable, corroding storage containers and in 35-55 year old "bunkers" that the Department of Energy promised were for "temporary" use. Plutonium that is supposed to be stored in a stable environment now sits in the bunkers--all but three without air conditioning--even as the Texas Panhandle experiences a spell of more than 40 consecutive days of 90+ degree temperatures, and more than 20 days this summer with thermometers registering 100+ degrees. If the Department of Energy cannot accomplish the job of safely storing Pantex plutonium in the most stable environment, there is no reason to accept its unsubstantiated assurances to safely process deadly plutonium powders at Pantex. 4

Thank you for this opportunity to comment.

Sincerely:

Erin Rogers

Don't risk the Ogallala for your short-sighted money-making schemes! Your greed + disregard for human life and the health of the environment SICKENS me. 5

Erin Rogers

MD063

MD063–4 **DOE Policy**

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

Worker exposure estimates attributable to the decision to repackage pits in AL–R8 sealed insert containers were incorporated in the revised Section 2.18 and Appendix L.5.1.

The issues raised in this comment relate to pit storage decisions made in the *Storage and Disposition PEIS* and 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). DOE is considering leaving the repackaged surplus pits in Zone 4 at Pantex for long-term storage. An appropriate environmental review will be conducted when the specific proposal for this change has been developed; addressing, for example, whether additional magazines need to be air-conditioned. The analysis in this SPD EIS assumes that the surplus pits are stored in Zone 12 in accordance with the ROD for the *Storage and Disposition PEIS*.

MD063–5 **DOE Policy**

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.

The remainder of this comment is addressed in response MD063–2.

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

Dear Department of Energy, Office of Fissile Materials Disposition:

In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy proposes to build new plutonium processing facilities and dispose of 55 tons of "surplus" plutonium. I ask that the following comments reflecting my concerns and reservations regarding these proposals be incorporated into the decisions made for the plutonium disposition program.

Immobilize

The objective of plutonium disposition is to make weapons-usable plutonium as inaccessible for reuse in nuclear weapons as the plutonium in irradiated nuclear fuel, and to do so in a timely and safe manner. For the following reasons the Department of Energy should choose to immobilize all surplus plutonium and consider the possibility of doing this at more than one location:

- Immobilizing all plutonium is a safer option because it involves less handling, processing, and transporting of plutonium and other radioactive materials, and is less expensive because it involves fewer new facilities and avoids the costs of subsidizing the nuclear industry. These same factors would allow disposition to occur in a much more timely manner; 1
- According to the Department of Energy's own studies, the "ceramification can-in-canister" approach to immobilization results in a waste product that is more resistant to theft, diversion, and reuse than irradiated mixed oxide (MOX) fuel;
- The immobilization approach does not involve increasing the risk to persons living near nuclear reactors because it avoids burning–for the first time ever–large amounts of weapons-grade plutonium.

If delays arise in the immobilization program, the Department of Energy should insure that:

- Tons of presently unstable plutonium oxide scheduled for immobilization are put in a safer, more stable form suitable for storage, inventory, and international inspection; 2
- The objective of interim demilitarization of currently stable forms of plutonium, such as plutonium in pits, must be the minimal alteration of its current form necessary for safe storage, inventory, and international inspection.

No To MOX

The ill-conceived mixed oxide (MOX) fuel option should be rejected because there is no rational justification to convert stable plutonium to less stable, more dangerous plutonium oxide powder for use in MOX fuel, and then subsidize the nuclear industry to irradiate the fuel in aging nuclear reactors. Now that it appears obvious that producing plutonium oxide powder suitable for use in MOX fuel will require liquid acid plutonium processing, the MOX option is a proven threat to human health and the environment. 3

The United States' rationale that it must choose the MOX option to appease Russia is unsubstantiated and flawed in several respects:

- There is little support for a plutonium fuel economy in Russia, where people voting in public referendums have overwhelmingly rejected new nuclear developments;

MD064

MD064–1 **Immobilization**

DOE acknowledges the commentor's support for the immobilization approach to surplus plutonium disposition. However, 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.

Multiple immobilization facilities would be very costly and time-consuming to implement, and therefore were not considered as an option in the SPD EIS. With only 50 t (55 tons) of surplus plutonium to disposition, it would not be practical to construct and operate more than one immobilization facility, even if the decision were made to immobilize all the surplus plutonium.

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. 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. NAS identified that the Spent Fuel Standard could be met through disposition by either the immobilization or MOX approach. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. The commercial reactors selected for the MOX approach include only those reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program.

NAS is currently conducting studies to confirm the ability of the ceramic can-in-canister immobilization approach to meet the Spent Fuel Standard.

This SPD EIS analyzes the potential environmental impacts associated with implementing the proposed surplus plutonium disposition activities at the candidate sites. The results of these analyses, presented in Chapter 4 of Volume I and summarized in Section 2.18, demonstrate that the activities would likely have minor impacts on the health, safety and environment at any of the candidate sites, including transportation impacts. Section 4.28 was revised to provide reactor-specific analyses and discuss the potential environmental impacts of using a partial MOX core during routine operations and reactor accidents.

MD064–2 **DOE Policy**

Surplus plutonium dioxide would be stabilized in conformance with DNFSB Recommendation 94–1 prior to being immobilized under the surplus plutonium disposition program. As discussed in Section 2.4, secure storage and monitoring provisions, including international inspection, and other safeguards will be integral components of the proposed facilities.

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

MD064–3 **MOX Approach**

DOE acknowledges the commentor's opposition to the MOX approach. The *Joint Statement of Principles* signed by Presidents Clinton and Yeltsin in September 1998 provide general guidance for achieving the objectives of a future bilateral agreement to disposition surplus plutonium in the

United States and Russia. Sensitive negotiations between the two countries have indicated that the Russian government accepts the technology of immobilization for low-concentration, plutonium-bearing materials, but that the MOX approach would be considered for higher-purity feed materials.

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.

The addition of the plutonium-polishing process was analyzed and a description of the potential environmental impacts was added to the impact sections presented for the MOX facility in Chapter 4 of Volume I. As indicated by the analyses, the addition of this process is not expected to materially affect human health of the population living within 80 km (50 mi) of the candidate sites. For example, the annual dose associated with operating the MOX facility is expected to increase by between 0.017 and 0.18 person-rem/yr for the population living within 80 km (50 mi) of the candidate sites.

The remainder of this comment is addressed in response MD064–1.

ROGERS, ERIN
PAGE 4 OF 6

- The argument that the Russian government opposes immobilization because the plutonium is more easily retrieved is undermined by the fact that irradiated MOX fuel is easier to re-use in nuclear weapons than the ceramification can-in-canister disposition approach;
- The United States should not be encouraging Russia to develop MOX capability due to the uncertainties produced by the U.S. underwriting costs of a Russian infrastructure to reprocess plutonium;
- Russia's choice of technology should not determine the U.S. choice. The governments themselves have recognized this, as in the United States-Russian Joint Plutonium Disposition study in 1996, which found that, "*The United States and Russia need not use the same plutonium disposition technology. Indeed, given the very different economic circumstances, nuclear infrastructures, and fuel cycle policies in the two countries, it is likely that the best approaches will be different in the two countries.*" 3

Already, politically powerful voices are suggesting that United States policy regarding plutonium be re-examined. By establishing a new level of plutonium processing infrastructure which encourages plutonium commerce, U.S. non-proliferation policy is clearly undermined.

Inform People of the Real Hazards, Risks, and Uncertainties

The Department of Energy has not fulfilled its legal obligation to fully inform people of the real risks, hazards, uncertainties and long-term implications of processing tons of plutonium powder that is hazardous to human health at the scale of micrograms. This latest voluminous, and largely unreadable, environmental document does not even contain the most basic information about hazards, such as the expected quantities of radioactive air pollutants. Instead, the public is forced to follow a paper maze if the information is available at all. 4

The Department of Energy must admit that the real hazards and risks are largely unknown, and that uncertainty is the only constant at this time. There is only one mixed oxide (MOX) fuel plant currently operating at the capacity proposed by this document--100 tons of MOX fuel fabricated per year--and that facility uses reactor-grade plutonium. 5 No MOX fuel from weapons-grade plutonium has ever been fabricated or used on an industrial scale, and no weapons-grade plutonium has ever been immobilized on an industrial scale. The plutonium pit disassembly and conversion plant would be a first-of-its-kind facility utilizing unproven technologies that are controversial even within the nuclear establishment. 6

To compound the uncertainties, the Department of Energy plutonium disposition plan is not a model for success. Under the existing proposals, the Department of Energy would design facilities requiring unproven technologies while the technology demonstration and testing is ongoing, and begin facility construction before finishing their design. The Department of Energy has followed this model of development before and the result has always been cost overruns, delays, unexpected negative impacts on human health and the environment, and massive waste of taxpayer dollars. 7

Thank you for this opportunity to comment.

Sincerely:

Erin Rogers

We don't need more radioactive waste! We do not need more nuclear power. There is nowhere to put the waste we have. No to MOX- No to further subsidization of the nuclear power industry! This is crazy. 8

MD064

MD064-4 **General SPD EIS and NEPA Process**

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). It is intended as a source of environmental information for the DOE decisionmakers and the public. The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. As with any EIS, technical information is included to the extent that it is required to understand those actions and impacts. Other data were added in the course of the EIS development—for example, expected radiological release quantities, including airborne releases, in Appendix J. Additional technical information concerning the proposed facilities is given in various data reports reflected in the list of references for Chapter 2 of Volume I. These referenced materials are available in DOE reading rooms.

MD064-5 **MOX Approach**

The commentor is correct that MOX fuel is not widely produced; however, the process is similar to production of LEU fuel. In fact, after the uranium and plutonium oxide powders are blended, the MOX fuel fabrication process is essentially identical to LEU fuel fabrication. While weapons-grade plutonium is currently used in MOX fuel, its behavior in fuel is essentially the same as that of non-weapons origin plutonium, and so does not present a situation different from MOX fuel experience to date. In addition, a limited number of MOX fuel assemblies would be irradiated and tested in accordance with NRC requirements to verify acceptability prior to fabricating the fuel on a larger scale for insertion into the reactors. NRC will also license the MOX facility under 10 CFR 70, and be responsible for issuing operating license amendments under 10 CFR 50 for the domestic, commercial reactors that have been selected to irradiate the MOX fuel. There are always uncertainties involved with construction projects and startup of new facilities and processes. However, DOE has considered the uncertainties in its evaluations and determined that MOX fuel fabrication for use in commercial reactors is a viable option to surplus plutonium disposition.

MD064–6 **Pit Disassembly and Conversion**

While it is true that the pit conversion facility is the first consolidated facility for accomplishing this mission on a large scale, the processes that would be used in this facility are not entirely new. Many of these processes are in use at LANL and LLNL. However, to ensure successful transition to full-scale operation, DOE is testing these components as an integrated system at LANL. This pit disassembly and conversion demonstration is focusing on equipment design and process development and will provide information for fine-tuning the process and operational parameters prior to pit conversion facility operation. While this demonstration could continue for up to 4 years, the information from the demonstration would be generated, gathered, and be available on a continuous basis throughout the facility design phase. This demonstration project and other R&D projects are described in the *Pit Disassembly and Conversion Demonstration EA* (DOE/EA-1207, August 1998), which is available on the MD Web site at http://www.doe-md.com.

MD064–7 **Alternatives**

DOE acknowledges the commentor's concern over potential shortcomings of the surplus plutonium disposition program. While it is true that the disposition of large quantities of plutonium is unprecedented, the various disposition alternatives are not. Several countries, including Russia and the United States, have experience with immobilizing high-level wastes and in use of the can-in-canister approach to that end. Using a ceramic rather than a glass matrix has been found to offer distinct advantages in the areas of proliferation resistance, repository durability, worker radiation exposure during processing, and cost-effectiveness.

Commercial reactors in the United States are capable of safely using MOX fuel. The MOX technology is used in Europe, and therefore does not require extensive research and development for implementation in the United States. The R&D effort would be concentrated on fabricating samples of MOX fuel and conducting limited experiments and tests on those samples to assess fuel performance. The main objectives of this effort by DOE are to ensure that the plutonium and uranium feed materials will produce acceptable MOX

fuel and to examine key issues relative to the performance of MOX fuel in commercial reactors.

MD064–8 **Waste Management**

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 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.

The remainder of this comment is addressed in response MD064–1.

I am concerned about the environment especially the water of the panhandle, since a lot of people drink it. | 1

Pantex seems to have a good record for safe handling of dangerous materials. The economy of the panhandle is important also, therefore I am in favor of the expansion of Pantex to recycle Pu. | 2

WD012

WD012–1 **Water Resources**

DOE acknowledges the commentor's environmental concerns. Section 4.26.3.2 describes the potential effects of the maximum impact alternative on water resources at Pantex. These analyses indicate that the impacts of construction and normal operation of the pit conversion and MOX facilities on the Ogallala aquifer at Pantex would likely be minor.

WD012–2 **DOE Policy**

DOE acknowledges the commentor's support of future missions at Pantex. However, none of the missions contemplated involved the recycling or reprocessing of plutonium. U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons. 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.

SADESKY, RAY
PAGE 1 OF 1

I strongly recomment that the Pantex Site is selected as the best site for the for the Pit Disassembly/Disposition process, for these reasons:

1. The site has exclusive and considerable experience in weapons disassembly. This experience translates into an improved safety envelope.

2. This site has no known radiological contamination of facilities. 1

3. This site already has a secure area with well trained security force.

4. The required infrastructure only lacks procedural refinements to accomodate the new mission.

5. This site enjoys a very supportive climate with its major stakeholders, including the local population, local and state lawmakers and regional environmental regulators.

Thank you. Ray Sadesky

WD002

WD002–1 **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.

511 Avenue K
Hereford, TX 79045

August 14, 1998

ATTENTION: DRAFT SPD-EIS
U. S. Department of Energy
Office of Fissile Materials Disposition
P. O. Box 23786
WASHINGTON DC 20026-3786

Gentlemen;

We Texans want to protect out water, air, and soil from radioactive pollutants. 1

We do not want plutonium processing in the Texas Panhandle.

And we do not want military plutonium turned into MOX fuel. 2

I would appreciate your considering these matters.

Sincerely yours,

Margaret Schultz

Margaret Schultz

MD057

MD057–1 **Alternatives**

DOE acknowledges the commentor's opposition to plutonium processing in the Texas Panhandle. This SPD EIS analyzes the potential environmental impacts associated with implementing the proposed activities at the candidate sites. The results of these analyses, presented in Chapter 4 of Volume I and summarized in Section 2.18, demonstrate that the activities would likely have minor impacts on any of those sites, including 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.

MD057–2 **MOX Approach**

DOE acknowledges the commentor's opposition to the MOX approach. Pursuing both the immobilization and MOX approaches provides 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. 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.

SEEWALD, WILLIAM H.
PAGE 1 OF 1

William Hughes Seewald

14 September 1998

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

Subject: Surplus Plutonium Disposition Draft Environmental Impact Statement

Dear Madams and Sirs:

I enclose two letters herein that lay out some principles and objections to which I subscribe relative to the above referenced NEPA document.

I would also like to add two points that I wish to be considered in addition:

1. Pantex, as a site that has never processed plutonium before, should not be considered for the new plutonium processing missions if the Department is to honor a previous commitment not to introduce such risks to sites not already radiologically contaminated due to previous processing missions. The Department of Energy owes the people of the Texas Panhandle the respect of honoring that sensible commitment, notwithstanding efforts on the part of some local interests to confuse issues of economic development and good public policy. 1
2. It strains credibility that the scoping and analysis for the siting of these new processing facilitates do not include as central criteria a site's previous experience in handling and processing plutonium as well as weighing the significance of any existing infrastructure that would not have to be replicated elsewhere. It seems absolutely self evident that to fail to do so leaves a NEPA document so flawed as to require significant overhaul. 2

Thank you for the opportunity to comment on these proposals.

Sincerely,

William H. Seewald

enc.

806-353-8486 Phone 353-9109 Fax ••• P.O. Box 10090 ~ Amarillo, Texas 79116

MD198

MD198–1 **Alternatives**

DOE acknowledges the commentor's concern that contamination may be introduced at sites that do not currently have plutonium-processing missions. This SPD EIS analyzes impacts of the environment from construction and normal operation of the pit conversion facility. This facility would be located in a new building at either Pantex or SRS and, regardless of the site location, would generate the same level of contamination and require the same amount of D&D. 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.

MD198–2 **General SPD EIS and NEPA Process**

As discussed in Sections 1.6 factors used in site selection for the preferred alternative included site infrastructure, mission, and staff expertise. Pantex was selected as a candidate site for the pit conversion facility in part from comments received during the scoping period for the SPD Draft EIS. DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively).

Hello, my name is Mary Shennum. I'm from Amarillo, Texas and I have requested materials in the past. I just wish to comment that I would like to say that I would be against any processing of plutonium here in the Panhandle. This is an agricultural region and our agriculture, our agriculture success is based upon our reputation here, as well as the reality of the difficulty of handling plutonium. I lived in Denver when plutonium was being processed at Rocky Flats and the citizenry grew to understand that it was just so difficult to handle and store there. And I'm just against any processing here. I think it's too dangerous. I think, I'd wish that there could be a place where there were operations already in place to work on these things. It's just a dangerous substance and amount of substances and we would rather not have it here in Amarillo. Thank you so much for your consideration of these comments. Thank you. 1

PD060

PD060–1 **Alternatives**

DOE acknowledges the commentor's opposition to siting the pit conversion and MOX facilities at Pantex. Incident-free (normal) releases of radioactivity from the proposed surplus plutonium disposition facilities to the food production chain are explained for each site in Appendix J. Current and future operations at any of the candidate sites should not impact the soil used for agriculture and farming in any of the regions adjacent to these sites. 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.

SHENNUM, MARY
PAGE 1 OF 1

Hello, my name is Mary Shennum. I'm in Amarillo Texas and I have another comment here on the processing of plutonium here in the Panhandle. We have a small area compared to some of the other areas that are being considered for storage of plutonium and we really don't want this processing here. It's a sensitive region. The non-success of agriculture in this area would affect the whole country. And we feel that's important. Also, as far as the producing of the MOX fuel, I think some people have said, and I would tend to agree with it, that the process itself is not quite well researched. It's, we don't really know all the implications of what might happen in processing this fuel. Handling the plutonium powder here is not something we wish to do and we think it should be looked at more closely. There are hazards that have not been recognized. Immobilizing the material seems to be a better option. It would be less dangerous and have some pluses because it would also decrease the risk of having, ever having this substance being used for weapons by someone that we didn't want to use them. Thanks for the opportunity to comment. Thank you very much. 1

PD066

PD066–1 **MOX Approach**

DOE acknowledges the commentor's opposition to the MOX approach to surplus plutonium disposition at Pantex. MOX fuel fabrication is not a new technology; it has been used in Europe for many years. DOE has visited some of these European plants and will use any pertinent experience in the development of its own plant, if MOX is chosen as an option. Both the immobilization and MOX fuel approach meet the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. 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.

Hello, this is Carol Smith and I think it would be a good thing for Pantex to have the plutonium disposition. And so that's my comment. Thank you. 1

PD023

PD023–1 **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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

SMITH, CHUCK
PAGE 1 OF 1

My name is Chuck Smith. This concerns the additional work at the Pantex Plant in Amarillo, Texas. I'm for that work. I think Pantex can do that work well. Thank you very much. Bye. 1

PD021

PD021–1 **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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

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

Dear Department of Energy, Office of Fissile Materials Disposition:

I do not support plutonium processing at the Pantex Plant. In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy prudently decided against locating one plutonium processing facility (MOX fuel fabrication) at the Pantex Plant. For the following additional reasons, a Plutonium Pit Disassembly and Conversion facility also should not be located at Pantex: 1

Pantex Should Not Become the Next Rocky Flats

Pantex has never processed plutonium. The Pantex Superfund site has so far apparently escaped the type of radioactive contamination found at plutonium processing sites like Rocky Flats in Colorado and Hanford in Washington.

Risks That Are Unknown Are Too High

The Pantex Plant occupies an area that is a fraction of the size of other plutonium sites.

SIZE MATTERS: A Comparison of the Area of the Four Candidate Sites (Square Miles)			
Pantex	Savannah River Site	Idaho National Engineering Lab.	Hanford
23	309	890	560

2

The technologies proposed in the Plutonium Pit Disassembly and Conversion Facility are undemonstrated and unproven. It is unacceptable to have plutonium operations above the Ogallala Aquifer and only one mile from where people live and work in a vibrant agricultural-producing area. The Pantex legacy already includes heavy contamination in a perched layer of groundwater less than one hundred feet above the Ogallala Aquifer. This pollution extends from under the Pantex Plant to adjacent private property and the real impacts remain unknown. The risk of any additional groundwater pollution is unacceptable in an agricultural region.

Common sense dictates that negative consequences to people and farmland from nuclear accidents are far more likely in a small, open, windy location like Pantex. The Department of Energy has acknowledged that the most visually unappealing feature of the plutonium facilities will be their smokestacks. Visual blight will be a minor inconvenience compared to the air pollutants--many of them radioactive--expected to escape into the atmosphere daily through smokestack filters. Routine air emissions of tritium, plutonium, americium, and beryllium constitute unacceptable new hazards to the Texas Panhandle. 3

MD102

MD102–1 **Alternatives**

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Pantex. As described in Chapter 4 of Volume I and summarized in Section 2.18, potential impacts of any of the proposed activities during routine operations at any of the candidate sites would likely be minor. To avoid contamination that has occurred in the past at some DOE sites, DOE would design, build, and operate the proposed surplus plutonium disposition facilities in compliance with today's strict environmental, safety, and health requirements. Decisions on the surplus plutonium disposition program at Pantex will be based upon 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.

MD102–2 **Human Health Risk**

Although Pantex is smaller in overall size in comparison with the other candidate sites, 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 (e.g., see Section 4.6).

While it is true that the pit conversion facility is the first consolidated facility for accomplishing this mission on a large scale, the processes that would be used in this facility are not entirely new. Many of these processes are in use at LANL and LLNL. In addition, DOE has recently started a pit disassembly and conversion demonstration project at LANL, where processes will be further developed and tested.

Section 4.26.3.2 analyzes impacts to the environment (including contamination to the Ogallala aquifer) due to construction and normal operation of a pit conversion facility at Pantex. 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. Appendix J.3 includes an analysis of potential contamination of agricultural products and

livestock and consumption of these products by persons living within an 80-km (50-mi) radius of Pantex. 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. This analysis indicates that impacts of operating the pit conversion facility on agricultural products, livestock, and human health at Pantex would likely be minor.

MD102–3 **Human Health Risk**

It is DOE policy to operate in compliance with all applicable air quality requirements and to protect human health and the environment. DOE takes into consideration pollution reduction techniques to minimize air releases when designing, constructing, and operating its facilities. It also considers aesthetic and scenic resources in the design, location, construction, and operation of facilities. Potential concentrations of air pollutants at Pantex for the various alternatives have been estimated, considering appropriate local meteorology and other data associated with the area. Because the releases from the pit conversion and MOX facilities would be very small (see Appendix J.3.1.4), estimates of resultant radiological health risks are small. As indicated in Section 4.17.2.4, the maximum possible dose delivered to a member of the public during normal operations of the MOX and pit conversion facilities at Pantex would be 0.077 mrem/yr, 0.02 percent of the dose that individual would receive annually from natural background radiation. The estimated dose to the public from radiological emissions (e.g., amercium, tritium, and plutonium) would be 0.58 person-rem/yr which would result in an increase of 2.9×10^{-3} LCFs over the 10-year operating life of the pit conversion facility. Any new facilities that might be built would be within existing site boundaries, and would be matched aesthetically with the current plant to limit potential visual impacts.

There is Valid, Strong Criticism of Safety in the Storage of Plutonium at Pantex

Since Pantex became the nation's long-term storage location for up to 20,000 plutonium pits, promises to improve safety conditions have not happened. The U.S. Government Accounting Office and the Defense Nuclear Facilities Safety Board have issued reports critical of plutonium storage safety at Pantex. Fifty million taxpayer dollars were spent on a failed plutonium pit container program (the AT-400A) and the plan to move over 10,000 pits into a safer remodeled building (Building 12-66) has also failed. 4

When it comes to plutonium pit storage problems, Panhandle residents are back to square one. The plutonium remains in old, unsuitable, corroding storage containers and in 35-55 year old "bunkers" that the Department of Energy promised were for "temporary" use. Plutonium that is supposed to be stored in a stable environment now sits in the bunkers--all but three without air conditioning--even as the Texas Panhandle experiences a spell of more than 40 consecutive days of 90+ degree temperatures, and more than 20 days this summer with thermometers registering 100+ degrees. If the Department of Energy cannot accomplish the job of safely storing Pantex plutonium in the most stable environment, there is no reason to accept its unsubstantiated assurances to safely process deadly plutonium powders at Pantex.

Thank you for this opportunity to comment.

Sincerely:

Please dont contaminate our Ogallala Aquifer. Please dont contaminate our air. 5

Let Savannah have the MOX. They are prepared and they want it.

Thank You

Ernestine Smith, M.D.
1216 S. Austin St.
Amarillo Tx 79102-1403

MD102

MD102–4 **DOE Policy**

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

Worker exposure estimates attributable to the decision to repackage pits in AL–R8 sealed insert containers were incorporated in the revised Section 2.18 and Appendix L.5.1.

The issues raised in this comment relate to pit storage decisions made in the *Storage and Disposition PEIS* and the *Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Component* (DOE/EIS-0225, November 1996). DOE is considering leaving the repackaged surplus pits in Zone 4 at Pantex for long-term storage. An appropriate environmental review will be conducted when the specific proposal for this change has been developed; addressing, for example, whether additional magazines need to be air-conditioned. The analysis in this SPD EIS assumes that the surplus pits are stored in Zone 12 in accordance with the ROD for the *Storage and Disposition PEIS*.

MD102–5 **DOE Policy**

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.

The remainder of this comment is addressed in responses MD102–1 and MD102–2.

SMITH, JIM D.
PAGE 1 OF 1

Yes, my name is Jim D. Smith. I live in the Texas Panhandle. Been here all my life, 68 years. I would like to voice opposition to the Pantex operations at Amarillo, Texas. You want public input, so here is some input. I know the Chamber of Commerce in Amarillo and the AEDC and all these people are gung-ho for this plant, but I'm going to tell you, most of the people that live out in the areas, rural areas of the Panhandle are not for this plant, the continuation of this plant, and certainly not for an increase operations out there such as this pit disassembly or whatever you call it. 1
We live in the, a area where there is 3 million head of cattle and the feed lots, this Pantex Plant is located at the end of the runway of the Amarillo International Airport. All the storage is above ground. This is, this is an accident just waiting to happen. I really feel that that plant should be closed and the mess should be cleaned up and the operation should be sent elsewhere. My address is Box, excuse me, my address is HC2, Box 250, Kress, Texas. Zip is 79052. My phone number is (806) 684-2631. Thank you for letting me express my opinion.

PD022

PD022–1 **Facility Accidents**

DOE acknowledges the commentor's opposition to siting the pit conversion facility at Pantex. Accident risk is an important consideration in the decision of whether, and if so, how and where, to conduct the surplus plutonium disposition program. There is accident risk associated with pit conversion operations at Pantex, just as there is accident risk associated with any operations at any site. The analysis in this SPD EIS endeavored to clarify those risks on both an absolute and relative basis so that the wisest course of action can be identified and taken. Chapter 4 of Volume I summarizes the impacts of accidents due to aircraft crashes at Pantex (e.g., see Table 4–60). The frequency of such an accident is judged to be beyond extremely unlikely meaning there is less than 1 chance in 1 million per year that the accident would occur. Detailed presentation of the analysis is provided in Appendix K.1.5.1. 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) Sam J. Sottile
ADDRESS: P. O. Box 276, Bushland, TX 79012-0276
TELEPHONE: (806) 356-6269
E-MAIL: sjsottile@juno.com

I wanted to convey the support of my family and myself for DOE's selection of PANTEX to receive the Pit Disassembly and Conversion Facility (PD&CF) mission.

My family attended one of the public meetings here in Amarillo, Texas. We can not tell you how much we appreciated the opportunity to learn more about the overall concepts that are being perused by the DOE.

I personally have been working in the nuclear weapons field for nearly thirty years. Twenty two and a half years in the United States Navy as a Weapons Technician and five years at PANTEX.

Enjoying what I do for a living is a very important part of my own personal mission statement. I really do enjoy disassembling, modifying, and assembling this vital portion of our nation's defense. I preform these tasks safely, and with the utmost attention to detail. Our nation, DOE, the American taxpayers, the people of the state of Texas, my fellow workers, and my own family are my customers. My customers deserve that I put 110% effort into my job. I have all the confidence in the world that the highly trained and experienced workforce of the Mason and Hanger Corp. can preform the PD&CF mission safely and with the utmost respect for our environment.....that's right, we live here in the community also! 1

I knew the positive reputation and acceptance of the PANTEX plant from the business, community, and our elected officials was great, but I was very gratified to hear speaker after speaker laud the "Good Neighbors" they have in the people of the PANTEX plant.

My hope and prayers are that DOE will select the PANTEX plant for the Pit Disassembly and Conversion Facility mission!

Thank you for this opportunity to make these comments.

FD200

FD200–1 **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.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 1 OF 15

STAND of Amarillo, Inc.

August 12, 1998
STAND COMMENT # 1

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

Attached are a series of comments submitted by STAND of Amarillo, Inc. pertaining to the *Surplus Plutonium Disposition Draft Environmental Impact Statement* (SPDEIS). These documents were referenced at the Amarillo, TX public hearing on August 11, 1998:

1. Comments on NEPA
2. Comments on locating plutonium processing at Pantex
3. Comments on immobilization and MOX
4. STAND of Amarillo Fact Sheet 98-04 with April 9, 1998 news release
5. News releases from August 6, 1998 and August 10, 1998
6. News article from August 11, 1998
7. Portions of the shredded Draft SPDEIS

These comments will be supplemented in the future.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

cc: U.S. Secretary of Energy William Richardson
cc: State of Texas Governor George W. Bush, Jr.
cc: Congressman Mac Thornberry
cc: State of Texas Attorney General Daniel Morales
cc: Ms. Carol Borgstrom, Office of NEPA Policy and Assistance

(806) 358-2622 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 355-3837

FD175

The National Environmental Policy Act

The National Environmental Policy Act (NEPA) is our basic national charter for the protection of the environment. NEPA requires all Federal agencies to "utilize a systematic, interdisciplinary approach" in planning and decision making of any actions that may have an impact on the environment; insure that high quality "environmental information is available to public officials and citizens before decisions are made and before actions are taken"; and insure substantial and meaningful public involvement in the planning and decision process. 1

The Department of Energy's *Surplus Plutonium Disposition Draft Environmental Impact Statement* (Draft SPDEIS) is in clear violation of the letter and spirit of the National Environmental Policy Act. Following is a list of just a few of the clear violations of this important environmental law.

NEPA requires agencies to identify and analyze significant effects

DOE failed to identify and address beryllium air emissions in the Draft SPDEIS. The *Design-Only Conceptual Design Report for the Pit Disassembly and Conversion Facility* (Los Alamos National Laboratory, 1997) described the PDCF as a beryllium operation and addressed the possible need for an air permit. In its 1994 *Environmental Checklist for ARIES*, Los Alamos National Laboratory cited "expected emissions" of beryllium for a very small test project. 2

DOE failed to identify radioactive air emissions in the Draft SPDEIS. On page J-4 of the Draft SPDEIS DOE wrote that, "source term data for radiological releases, stack heights, and release locations are provided in the data reports for the pit conversion, immobilization, and MOX facilities." The data reports are not provided to the public, but are placed in reading rooms. n other words, the Draft SPDEIS does not provide any data on something as basic as expected quantities of radioactive air pollutants. 3

DOE did not analyze the impact of creating a new plutonium processing site (Pantex). DOE has identified this impact as significant in other NEPA documents. In its Programmatic Environmental Impact Statement for Stockpile Stewardship and Management, (1996), DOE wrote, ***"Plutonium would not be introduced into a site that does not have a plutonium infrastructure because of the high cost of new plutonium facilities and the complexity of introducing plutonium operations into sites without current capabilities."*** 4

NEPA requires agencies to evaluate all reasonable alternatives

DOE did not identify or evaluate the "metals-only option" for plutonium pit disassembly and conversion. The "metals only option was reported in the *Technical Risk Assessment for the Department of Energy Pit Disassembly and Conversion Facility Final Report* (Los Alamos National Laboratory, 1997) as the option with the least technical risk. 5

Compiled by STAND of Amarillo

FD175

FD175–1 **General SPD EIS and NEPA Process**

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively).

FD175–2 **Air Quality and Noise**

The 1994 analysis performed by LANL referred to the possibility of airborne releases of beryllium, a hazardous air pollutant, from pit disassembly and conversion. Subsequent analysis from LANL indicates that there would not be any airborne releases of beryllium (*Pit Disassembly and Conversion Facility, Environmental Impact Statement Data Report—Pantex Plant*, LA-UR-97-2909, June 1998). Because the beryllium is expected to remain in metal form at all times, the health hazards are minimized. The beryllium would be present in large pieces and cuttings created when the pit was bisected. These cuttings would be too large to become airborne. There would be no grinding; thus, there would not be any pieces of beryllium small enough to become airborne. Because the pieces and cuttings would be contaminated with trace levels of radioactive materials, they would primarily be disposed of as TRU waste and is included in the waste projections in this SPD EIS.

Section 2.4.1.1 was revised to discuss beryllium and its presence in the pit conversion facility.

FD175–3 **Air Quality and Noise**

Appendix G was revised to include the stack parameters for each of the proposed surplus plutonium disposition facilities, and Appendix J was revised to include their expected radiological release quantities.

FD175–4 **DOE Policy**

The *Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management* (SSM PEIS) (DOE/EIS-0236, September 1996) states that the pit fabrication mission would not be introduced into a site that does not have an existing plutonium infrastructure because of the high cost of new plutonium facilities and the complexity of introducing plutonium

operations into sites without current plutonium capabilities. The SSM PEIS states further that an important element of the site selection strategy is to maximize the use of existing infrastructure and facilities as the nuclear weapons complex becomes smaller and more efficient in the 21st century; thus, no new facilities were to be built to accommodate stockpile management missions. Accordingly, DOE considered as reasonable only those sites with existing infrastructure capable of supporting a pit fabrication mission. Although Pantex has the infrastructure to carry out its current weapons assembly and disassembly mission and nonintrusive pit reuse program, it was not considered a viable alternative for the pit fabrication mission because it did not possess sufficient capability and infrastructure to meet the SSM PEIS siting assumption stated above. Among the operations that were considered in developing siting alternatives for pit fabrication in the SSM PEIS were plutonium foundry and mechanical processes, including casting, shaping, machining, and bonding; a plutonium-processing capability for extracting and purifying plutonium to a reusable form either from pits or residues; and assembly operations involving seal welding and postassembly processing.

When comparing the site selection strategy for pit disassembly and conversion with that used for the pit fabrication mission, the siting criteria in the SSM PEIS have little or no bearing on siting criteria used in this SPD EIS. Pit disassembly and conversion do not require the foundry and mechanical processes discussed in the SSM PEIS and can be accomplished in a stand-alone facility. Also, the SSM PEIS siting assumptions include a requirement to use existing facilities, whereas ,the pit conversion facility would be a new structure no matter where it is located.

The analyses conducted for this SPD EIS indicate that potential environmental and human health impacts at Pantex would not be major. Results of the analysis are presented by alternative in Chapter 4 of Volume I. Detailed information on the potential impacts on human health at Pantex is presented in Appendix J.3. As shown in these sections, normal operation of the proposed facilities at Pantex would be well within limits prescribed by Federal, State, and local laws and regulations.

FD175–5 **Pit Disassembly and Conversion**

NEPA requires agencies to evaluate a range of reasonable alternatives. In the ROD for the *Storage and Disposition PEIS,* DOE identified two approaches for plutonium disposition: immobilization and conversion into MOX fuel for use in existing domestic, commercial reactors. Both approaches call for the use of plutonium dioxide as feed material. To become suitable feed material, the plutonium pits would have to be converted to oxide. Therefore, the metals-only option is beyond the scope of this SPD EIS; it was eliminated from consideration in the ROD for the *Storage and Disposition PEIS.*

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 5 OF 15

DOE did not evaluate "plutonium polishing"—liquid acid plutonium polishing— as a reasonable alternative for producing plutonium oxide powder suitable for Mixed Oxide (MOX) fuel use. DOE clearly considers liquid acid plutonium processing to be a reasonable alternative. In early June, DOE amended its *Request for Proposals for MOX Fuel Fabrication and Irradiation Services* to read: ***"The Offeror shall indicate whether or not its technical approach incorporates a plutonium oxide polishing step."*** 6

NEPA requires early implementation and public involvement

NEPA requires agencies to reduce delays and "integrate the NEPA process into early planning,." and DOE's policy is to "apply the NEPA review process early in the planning stages for DOE proposals." (10CFR1021.210.a)

DOE has excluded nuclear reactor communities from the public involvement process. DOE intends to burn Mixed Oxide (MOX) fuel in nuclear reactors but is allowing the nuclear industry to provide the site specific analysis for this proposed federal action. In the Draft SPDEIS, DOE has stated that, *"environmental impact analysis relating to specific reactors will be included in the SPD Final EIS,"* although these analyses are scheduled to be made by Consortiums in their proposals to fabricate and irradiate Mixed Oxide (MOX) fuel. No hearings have been held or are being planned in communities where utilities have expressed an interest in burning MOX fuel. 7

NEPA requires agencies meaningful and substantial public involvement

DOE did not adequately consider public input to the scope of the SPDEIS. During the 1997 Scoping for the Surplus Plutonium Disposition Environmental Impact Statement, hundreds of individuals and groups submitted comments to DOE to: 8

- Involve nuclear reactor communities in the NEPA process and do site-specific analysis of nuclear reactor sites; 7
- Provide environmental, safety and health information from the European mixed oxide (MOX) fuel industry; 8
- Fully analyze the differences between plutonium pit conversion for use in immobilization versus use in mixed oxide (MOX) fuel; 5
- Analyze "aqueous" plutonium processing as a reasonable alternative for plutonium pit conversion. 6
- Provide environmental impact data in the actual environmental impact statement, not in reference documents. 3

These scoping considerations were not undertaken by the Department of Energy. 8

The intent of NEPA is not bigger documents, it is better documents.

The Draft SPDEIS is 1300 pages long, yet it does not contain basic information, it does contain redundant and unnecessary paperwork, and it does not provide high quality information that is easily read by the general public. 9

FD175

FD175–6 Plutonium Polishing and Aqueous Processing

At the time DOE issued the SPD Draft EIS, it believed the gallium content in the plutonium dioxide feed specifications for MOX fuel could be reached using the dry, thermal gallium removal method included in the pit conversion process. However, in response to public interest on this topic and to ensure adequate NEPA review in the event that the gallium specification could not be met with the thermal process, an evaluation of the potential environmental impacts of including a small-scale aqueous process (referred to as plutonium polishing) as part of either the pit conversion or MOX facility was presented in Appendix N of the SPD Draft EIS. 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.

FD175–7 General SPD EIS and NEPA Process

The SPD Final EIS was not issued until the proposed reactors had been identified and the public had an opportunity to comment on the reactor-specific information. As part of the procurement process, bidders were asked to provide environmental information to support their proposals. This information was analyzed in an Environmental Critique prepared for the DOE source selection board prior to award of the MOX fuel fabrication and irradiation services contract. DOE then prepared an Environmental Synopsis on the basis of the Environmental Critique, which was released to the public as Appendix P of the *Supplement to the SPD Draft EIS* in April 1999. This *Supplement* included a description of the affected environment around the three proposed reactor sites, and analyses of the potential environmental impacts of operating these reactors using MOX fuel (Sections 3.7 and 4.28 of this SPD EIS, respectively). During the 45-day period for public comment on the *Supplement*, DOE held a public hearing in Washington, D.C., on June 15, 1999, and invited comments. Responses to those comments are provided in Volume III, Chapter 4.

FD175–8 **General SPD EIS and NEPA Process**

DOE acknowledges the commentor's concerns regarding public involvement. As discussed in the response to FD175–7, nuclear reactor communities had the opportunity to comment. In the Environmental Critique and Environmental Synopsis, DOE used information that DCS provided on its European MOX fuel experience in evaluating changes required to the proposed MOX facility. The results of the critique were made available to the public in the Environmental Synopsis in accordance with 10 CFR 1021.216.

FD175–9 **General SPD EIS and NEPA Process**

DOE has worked carefully to keep the size of this SPD EIS to a minimum, and yet to make it sufficiently comprehensive to ensure that the decisionmaker and the public are well informed on the potential environmental impacts of siting the proposed surplus plutonium disposition facilities. However, the number and complexity of reasonable alternatives required to meet DOE's needs compel a very large document. DOE has also worked carefully to eliminate duplicate information. Nevertheless, a certain amount of repetition has been necessary to assist the reader—that is, to prevent the reader from having to move between various sections to exhaust the information on a particular topic. DOE has prepared a short summary of the SPD EIS and a guide on how to quickly locate specific information therein.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 7 OF 15

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

Dear Department of Energy, Office of Fissile Materials Disposition:

I do not support plutonium processing at the Pantex Plant. In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy prudently decided against locating one plutonium processing facility (MOX fuel fabrication) at the Pantex Plant. For the following additional reasons, a Plutonium Pit Disassembly and Conversion facility also should not be located at Pantex:

Pantex Should Not Become the Next Rocky Flats

Pantex has never processed plutonium. The Pantex Superfund site has so far apparently escaped the type of radioactive contamination found at plutonium processing sites like Rocky Flats in Colorado and Hanford in Washington.

Risks That Are Unknown Are Too High

The Pantex Plant occupies an area that is a fraction of the size of other plutonium sites.

SIZE MATTERS: A Comparison of the Area of the Four Candidate Sites (Square Miles)

Pantex	Savannah River Site	Idaho National Engineering Lab.	Hanford
23	309	890	560

10

The technologies proposed in the Plutonium Pit Disassembly and Conversion Facility are undemonstrated and unproven. It is unacceptable to have plutonium operations above the Ogallala Aquifer and only one mile from where people live and work in a vibrant agricultural producing area. The Pantex legacy already includes heavy contamination in a perched layer of groundwater less than one hundred feet above the Ogallala Aquifer. This pollution extends from under the Pantex Plant to adjacent private property and the real impacts remain unknown. The risk of any additional groundwater pollution is unacceptable in an agricultural region.

Common sense dictates that negative consequences to people and farmland from nuclear accidents are far more likely in a small, open, windy location like Pantex. The Department of Energy has acknowledged that the most visually unappealing feature of the plutonium facilities will be their smokestacks. Visual blight will be a minor inconvenience compared to the air pollutants—many of them radioactive—expected to escape into the atmosphere daily through smokestack filters. Routine air emissions of tritium, plutonium, americium, and beryllium constitute unacceptable new hazards to the Texas Panhandle.

FD175

FD175–10 **Alternatives**

This comment is addressed in responses to the campaign, *Letter Expressing Reasons for Not Supporting Plutonium Processing at the Pantex Plant.*

There is Valid, Strong Criticism of Safety in the Storage of Plutonium at Pantex

Since Pantex became the nation's long-term storage location for up to 20,000 plutonium pits, promises to improve safety conditions have not happened. The U.S. Government Accounting Office and the Defense Nuclear Facilities Safety Board have issued reports critical of plutonium storage safety at Pantex. Fifty million taxpayer dollars were spent on a failed plutonium pit container program (the AT-400A) and the plan to move over 10,000 pits into a safer remodeled building (Building 12-66) has also failed.

When it comes to plutonium pit storage problems, Panhandle residents are back to square one. The plutonium remains in old, unsuitable, corroding storage containers and in 35-55 year old "bunkers" that the Department of Energy promised were for "temporary" use. Plutonium that is supposed to be stored in a stable environment now sits in the bunkers--all but three without air conditioning--even as the Texas Panhandle experiences a spell of more than 40 consecutive days of 90+ degree temperatures, and more than 20 days this summer with thermometers registering 100+ degrees. If the Department of Energy cannot accomplish the job of safely storing Pantex plutonium in the most stable environment, there is no reason to accept its unsubstantiated assurances to safely process deadly plutonium powders at Pantex. 10

Thank you for this opportunity to comment.

Sincerely:

FD175

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

Dear Department of Energy, Office of Fissile Materials Disposition:

In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy proposes to build new plutonium processing facilities and dispose of 55 tons of "surplus" plutonium. I ask that the following comments reflecting my concerns and reservations regarding these proposals be incorporated into the decisions made for the plutonium disposition program.

Immobilize

The objective of plutonium disposition is to make weapons-usable plutonium as inaccessible for reuse in nuclear weapons as the plutonium in irradiated nuclear fuel, and to do so in a timely and safe manner. For the following reasons the Department of Energy should choose to immobilize all surplus plutonium and consider the possibility of doing this at more than one location:

- Immobilizing all plutonium is a safer option because it involves less handling, processing, and transporting of plutonium and other radioactive materials, and is less expensive because it involves fewer new facilities and avoids the costs of subsidizing the nuclear industry. These same factors would allow disposition to occur in a much more timely manner;
- According to the Department of Energy's own studies, the "ceramification can-in-canister" approach to immobilization results in a waste product that is more resistant to theft, diversion, and reuse than irradiated mixed oxide (MOX) fuel;
- The immobilization approach does not involve increasing the risk to persons living near nuclear reactors because it avoids burning--for the first time ever--large amounts of weapons-grade plutonium. 11

If delays arise in the immobilization program, the Department of Energy should insure that:

- ns of presently unstable plutonium oxide scheduled for immobilization are put in a safer, more stable form suitable for storage, inventory, and international inspection;
- The objective of interim demilitarization of currently stable forms of plutonium, such as plutonium in pits, must be the minimal alteration of its current form necessary for safe storage, inventory, and international inspection.

No To MOX

The ill-conceived mixed oxide (MOX) fuel option should be rejected because there is no rational justification to convert stable plutonium to less stable, more dangerous plutonium oxide powder for use in MOX fuel, and then subsidize the nuclear industry to irradiate the fuel in aging nuclear reactors. Now that it appears obvious that producing plutonium oxide powder suitable for use in MOX fuel will require liquid acid plutonium processing, the MOX option is a proven threat to human health and the environment.

The United States' rationale that it must choose the MOX option to appease Russia is unsubstantiated and flawed in several respects:

- There is little support for a plutonium fuel economy in Russia, where people voting in public referendums have overwhelmingly rejected new nuclear developments;

FD175

FD175–11 **Alternatives**

This comment is addressed in responses to the campaign, *Letter Expressing Support for Immobilizing All Surplus Plutonium and Rejection of the Mixed Oxide Fuel Option.*

- The argument that the Russian government opposes immobilization because the plutonium is more easily retrieved is undermined by the fact that irradiated MOX fuel is easier to re-use in nuclear weapons than the ceramification can-in-canister disposition approach;

- The United States should not be encouraging Russia to develop MOX capability due to the uncertainties produced by the U.S. underwriting costs of a Russian infrastructure to reprocess plutonium;

- Russia's choice of technology should not determine the U.S. choice. The governments themselves have recognized this, as in the United States-Russian Joint Plutonium Disposition study in 1996, which found that, *"The United States and Russia need not use the same plutonium disposition technology. Indeed, given the very different economic circumstances, nuclear infrastructures, and fuel cycle policies in the two countries, it is likely that the best approaches will be different in the two countries."*

Already, politically powerful voices are suggesting that United States policy regarding plutonium be re-examined. By establishing a new level of plutonium processing infrastructure which encourages plutonium commerce, U.S. non-proliferation policy is clearly undermined.

Inform People of the Real Hazards, Risks, and Uncertainties

The Department of Energy has not fulfilled its legal obligation to fully inform people of the real risks, hazards, uncertainties and long-term implications of processing tons of plutonium powder that is hazardous to human health at the scale of micrograms. This latest voluminous, and largely unreadable, environmental document does not even contain the most basic information about hazards, such as the expected quantities of radioactive air pollutants. Instead, the public is forced to follow a paper maze if the information is available at all. 11

The Department of Energy must admit that the real hazards and risks are largely unknown, and that uncertainty is the only constant at this time. There is only one mixed oxide (MOX) fuel plant currently operating at the capacity proposed by this document--100 tons of MOX fuel fabricated per year--and that facility uses reactor-grade plutonium. No MOX fuel from weapons-grade plutonium has ever been fabricated or used on an industrial scale, and no weapons-grade plutonium has ever been immobilized on an industrial scale. The plutonium pit disassembly and conversion plant would be a first-of-its-kind facility utilizing unproven technologies that are controversial even within the nuclear establishment.

To compound the uncertainties, the Department of Energy plutonium disposition plan is not a model for success. Under the existing proposals, the Department of Energy would design facilities requiring unproven technologies while the technology demonstration and testing is ongoing, and begin facility construction before finishing their design. The Department of Energy has followed this model of development before and the result has always been cost overruns, delays, unexpected negative impacts on human health and the environment, and massive waste of taxpayer dollars.

Thank you for this opportunity to comment.

Sincerely:

FD175

STAND of Amarillo, Inc.

FOR IMMEDIATE RELEASE: APRIL 9, 1998

NEWS RELEASE******NEWS RELEASE**

NRC SCRUTINIZES MOX PROGRAM

"SHIFTING SOIL" AND CONFUSION CHARACTERIZE DOE EFFORTS

The Nuclear Regulatory Commission (NRC) issued several stern warnings to the Department of Energy (DOE) during an April 3, 1998 public meeting in which DOE briefed the commission on its Mixed Oxide (MOX) fuel program. NRC Chairperson Shirley Jackson admonished DOE, "Stability at the highest policy levels within DOE...is something that we absolutely must have." Jackson's remarks finalized the briefing that yielded repeated indications that DOE's MOX program appears to lack integrated and coherent leadership or strategy.

Director of DOE's Office of Fissile Materials Disposition, Howard Canter, indicated the regulatory framework is poorly defined. Jackson replied at one point that "the soil seems to be shifting...and so the real question that naturally occurs is how firm is DOE with the strategies and plans that you have presented today?"

Pantex is one of four candidate sites for plutonium processing operations, and its supporters have used NRC regulation as a selling point in trying to minimize the dangers associated with these new missions at the plant. Serious concerns for the Panhandle arise since this regulation doesn't currently exist and proposals are neither clear nor defined at this point.

12

The fact is that DOE remains self-regulated in their handling of plutonium. "Our experience is that DOE does whatever it wants to do, and public input is just a charade. I'm not sure they will ever be willing to heed any advice from the Nuclear Regulatory Commission either," according to Trish Neusch, Operations Director for STAND of Amarillo, whose family lives and farms less than 2 miles from the proposed plutonium processing facility.

Don Moniak, Program Director for STAND of Amarillo, adds, "While it is encouraging to see the NRC put the plutonium disposition program under such heavy scrutiny, we hope Congress and the Texas delegation begin to take notice and slash MOX funding accordingly. DOE needs better leadership and a sense of direction before they waste any more taxpayer dollars."

The April 3, 1998 NRC meeting transcript is available in its entirety on the World Wide Web at:

http://www.nrc.gov/NRC/COMMISSION/TRANSCRIPTS/19980403a.html

For More Information Contact:

Don Moniak, STAND of Amarillo, Inc. 806-358-2622

(806) 358-2622 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 355-3837

FD175

FD175–12 **General SPD EIS and NEPA Process**

DOE acknowledges the attached news releases, fact sheet, and newspaper article.

POSITIONS AND STATEMENTS
PLUTONIUM PROCESSING AND MIXED OXIDE (MOX) FUEL

"We oppose the processing, reprocessing and the production of mixed oxide fuel (MOX) in areas where there is possibility or risk of pollution and contamination of agricultural land, air, and groundwater."

State Policies of the Texas Farm Bureau, 1998, Pages 36-37, Section 137, Lines 24-28

American Farm Bureau Federation Policies for 1998, Page 112, Section 121, Lines 38-41

"The Party recognizes the value of alternative energy and supports continued private research and development of such sources, but we oppose the federal government using hazardous waste as an alternative energy source, such as the processing and/or reprocessing of plutonium and uranium for making Mixed Oxide fuel in agricultural areas and above major water sources."

Texas Republican State Party 1998 Platform for "Alternative Energy Sources"

"Since the manufacture of nuclear reactor fuel rods has usually led to environmental contamination of land, air, and water, and since the Pantex Plant near Amarillo, Texas is located over the Ogallala Aquifer, the country's largest aquifer, and in the midst of one of the country's largest grain-and-cattle-producing regions, the Democratic Party of Texas opposes the U.S. Department of Energy plan to produce Mixed Oxide (MOX) fuel from plutonium and uranium at the Pantex Plant, or any other form of plutonium processing."

Texas Democratic State Party 1998 Platform

12

"A consortium has been formed between Bechtel, BNFL International, and Westinghouse. GE chose not to participate. GE will not receive, store, process, transport, or take title to any material in any stage of the MOX process. I think you have other people to deal with on this one and not GE. Thank you very much."

Statement by General Electric Corporation Chairman of the Board Robert Welch at annual General Electric shareholders meeting, April 1998

STAND of Amarillo, Inc. Fact Sheet #98-4
7105 W. 34th Ave, Suite E, Amarillo, TX 79109 806-358-2622 stand@arn.net

FD175

STAND of Amarillo, Inc.

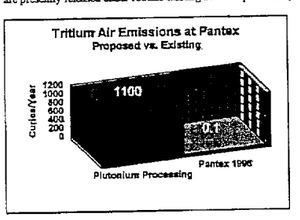
FOR IMMEDIATE RELEASE: August 5, 1998

NEWS RELEASE********NEWS RELEASE

TRITIUM EMISSIONS WOULD JUMP 10,000 TIMES WITH PLUTONIUM PROCESSING AT PANTEX

According to a Department of Energy document, high levels of routine air emissions of gaseous, radioactive tritium would characterize operations at a Plutonium Pit Disassembly and Conversion Facility (PDCF). Los Alamos National Laboratory scientists estimated that 1,100 curies a year of gaseous tritium would be released through a smokestack about 115 feet high. The source of the tritium would be the "disassembly and conversion of pits containing tritium"[1] in the "Special Recovery Line," an additional process that was not previously reported.

Pantex and the Savannah River Site plant in South Carolina are "equally preferred" candidate sites for locating the Plutonium pit processing facility--a first-of-its-kind plutonium processing plant that would utilize unproven technologies. If located at Pantex, the PDCF would emit 10,000 times more hazardous, radioactive tritium gas than are presently released under routine existing Pantex operations (0.1 curies/year in 1995 and 1996).



Panhandle Area Neighbors And Landowners (PANAL) member Jeri Osborne stated, "that is a lot of radioactive air pollution considering the winds we have around here. There are several of us living and farming along this north-northwest Pantex boundary, including a bunch of children. We've said all along that plutonium processing is a threat to human health and area agriculture, and this just confirms our position yet again." 12

"The Department of Energy brags about the number of jobs a plutonium plant might create but chooses to hide the severe health hazards plutonium operations would create," added Don Moniak from Serious Texans Against Nuclear Dumping.

For More Information Contact
Don Moniak, 806-358-2622

[1] Pit Disassembly and Conversion Facility, Environmental Impact Statement Data Report--Pantex Site, LA-UR-97-2903. Page 68.

(806) 358-2622 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 355-3837

SAVE TEXAS AGRICULTURE AND RESOURCES
7105 W. 34th Street
Amarillo, Texas 79109
(806) 358-2622

FOR IMMEDIATE RELEASE: August 10, 1998
ATTENTION: ASSIGNMENT EDITORS

MEDIA ADVISORY ******MEDIA ADVISORY

Media Conference
Courtyard Area of the Radisson Inn, I-40 and Lakeside
Amarillo, Texas
2 P.M., Monday, August 10

LOCAL GROUPS TO SHRED DEPARTMENT OF ENERGY'S ENVIRONMENTAL IMPACT STATEMENT

Local Panhandle area citizens and grassroots organizations will meet with the media to discuss their grave concerns with the Department of Energy's proposals to begin processing plutonium at the Pantex Plant. A public hearing being held in Amarillo on Tuesday, August 11th is an important opportunity for Texas Panhandle residents to remind the government that the lure of a few hundred jobs is not worth becoming the next Rocky Flats. A copy of the *Surplus Plutonium Disposition Draft Environmental Impact Statement* will be sent through a shredder to send the Department of Energy the message that the document is in clear violation of the National Environmental Policy Act. Some of the clear violations include: 12

- Failure to evaluate all reasonable plutonium processing alternatives;
- Omission of environmental impacts such as radioactive air emissions;
- Exclusion of nuclear reactor communities from the public involvement process;
- A claim that repackaging plutonium pits at Pantex into shipping containers would add $70,000,000 in operating costs to a plutonium pit disassembly and conversion facility at a site other than Pantex.

"We are greatly disturbed that the government chose not to tell people how much radioactive debris will be deposited on our agricultural land and its products," said Doris Smith of Panhandle Area Neighbors and Landowners (PANAL).

"Pantex is a site with no plutonium processing experience and compared to other DOE sites it is clean of radioactive contamination. Yet these considerations remain absent in the analysis," said Mavis Belisle of the Peace Farm.

"The Department of Energy already said it would repackage plutonium pits in new storage and shipping containers as part of its storage program. The failure to implement a promised safety improvement program should not function as a criteria for locating a more dangerous operation at Pantex." said Don Moniak from Serious Texans Against Nuclear Dumping (STAND).

CONTACTS: Don Moniak 806-358-2622 Mavis Belisle 806-335-1715 Doris Smith 806-335-1050

STAND of Amarillo • PANAL • the Peace Farm • POWER of Hereford • Texas Nuclear Waste Task Force

FD175

Amarillo Daily News Tuesday, August 11, 1998 9A

STAND: Report omits data

By GREG ROHLOFF
Globe-News Business Writer

Opponents of a possible plutonium pit disassembly plant at Pantex said Monday that the Department of Energy failed to include all the pertinent information in its draft environmental impact statement.

The DOE will conduct hearings from 1 to 4 p.m. and 6 to 9 p.m. today at the Radisson Inn, Interstate 40 and Lakeside, on the possible location of a pit disassembly plant. Additionally, the DOE will collect written comments on the proposal through Sept. 16.

U.S. Rep. Mac Thornberry, R-Clarendon, will testify on why he believes Pantex is the best choice for the plant. Thornberry is a member of the House National Security Committee, which oversees Pantex and the nation's nuclear weapons complex.

Pantex is one of two preferred sites, according to DOE documents. The other is the Savannah River Site in western South Carolina.

Don Moniak, executive director of Serious Texans Against Nuclear Dumping, said the DOE's environmental impact statement downplays the potential radiation exposure.

Radiation exposure is measured in standard units called rems; DOE regulations allow up to 5 rems yearly, according to Andre Cygelman, director of material and immobilization of the office of fissile materials disposition for DOE.

The document states an average yearly exposure of about 500 millirems; a millirem is one-thousandth of a rem.

Moniak said Pantex's current level of allowable radiation exposure is 800 millirems.

A report analyzing the staffing needs of a pit disassembly plant prepared by Los Alamos National Laboratory estimates that some workers on the operating floor could be exposed to as much as 1 rem. The average for all floor workers is 810 millirems.

Moniak said the DOE environmental impact statement writers apparently arrived at the 500 millirems figure by including managers and clerical workers who would not be in contact with the pits.

Cygelman and Bert Stevenson, director of outreach for the office of fissile materials disposition, said they had no knowledge of the source of the higher figures quoted by Moniak.

Cygelman said the 500 millirems was a goal for a disassembly plant.

Donja Smith of the Panhandle Area Neighbors and Landowners, another group opposed to expanding Pantex's mission, said the draft document understates the potential exposure to tritium, a toxic liquid that has reached a perched aquifer above the Ogallala aquifer, a principle source of water for the region.

She cited a June 1 report on the Pit Disassembly and Conversion Facility that 1,100 curies of tritium would be released into the atmosphere.

Cygelman insisted that the figures in the draft environmental impact statement were accurate, and that workers would face little exposure to tritium while handling the plutonium pits in glove boxes.

Mavis Belisle of the Peace Farm questioned the accuracy of figures listed for beryllium, noting that the Oak Ridge, Tenn., plant has had environmental problems because of beryllium.

Cygelman and Stevenson said they were uncertain of the analysis of beryllium exposure.

Moniak, Smith and Belisle shredded a copy of the statement, reducing it to a pile of paper strips.

"We do not believe it is legally valid or scientifically valid at this time," Moniak said.

Moniak called for a new statement that would be shorter and more concise than the current document's 1,300 pages.

12

FD175

STAND of Amarillo, Inc.

August 24, 1998
STAND COMMENT # 2
Surplus Plutonium Disposition Draft Environmental Impact Statement
(Draft SPDEIS)

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

RE: *ARIES Source Term Fact Sheet* (LALP-97-24, Rev. 3, April 24, 1998).

On page 3, paragraph two, the report states that, "A significant number of pits processed by the ARIES facility will contain tritium. None of these pits were selected as part of the ARIES pilot demonstration because of the difficulties associated with handling tritium."

- Does the Department of Energy know how many pits contain tritium?
- Exactly what exact difficulties are associated with handling tritium, why are these difficulties not reported in the Draft SPDEIS, and will DOE detail these difficulties in the Final SPDEIS? 1
- What would be the consequences if pits containing tritium were sent through the proposed plutonium pyroprocessing modules?
- Is DOE considering processing pits with tritium at an even or uneven rate?

On page 3, paragraph two, the report also states that, "Decisions regarding the presence of tritium will be made before processing pits in the ARIES facility. These decisions may be based upon prior knowledge or upon a sampling strategy for detecting tritium. A strategy for detecting tritium in pits was devised while planning for the reconfiguration of the nuclear stockpile complex."

- When will DOE make these decisions regarding the presence of tritium?
- Where in the Draft SPDEIS is there an analysis and/or reporting of the requirements for detecting tritium? 2
- Was the tritium detection strategy ever reported in a public document? Was this strategy ever implemented?
- What is the risk of not detecting tritium in a pit that does contain tritium?

(806) 358-2822 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 355-3837

FD145

FD145–1 **Pit Disassembly and Conversion**

Section 2.4.1.2 was revised to expand the discussion of tritium and operation of the Special Recovery Line. DOE knows how many pits contain tritium. The actual number and types of pits containing tritium are classified. Pits with tritium would be handled in the Special Recovery Line. Tritium is removed from the pit and either captured for use or oxidized to tritiated water and captured for disposal as LLW. The tritium included in the waste estimates and emissions were bounded and analyzed in this SPD EIS. The presence of tritium would be confirmed when the pit is unpacked from the shipping container and would also be obvious when the pit is bisected. Tritium would be separated from the pit components in the Special Recovery Line, and all parts would be surveyed for tritium before being moved for further processing. These steps would reduce the probability of pyroprocessing of plutonium contaminated with tritium to a level that is not considered credible. However, if it were to happen the tritium would be volatilized and escape through the facility's ventilation system since HEPA filters cannot capture tritium. The resulting tritium release to the atmosphere would be of smaller consequence than the design-basis accident already presented in this SPD EIS for a tritium release at the pit conversion facility during a glovebox fire because this accident includes tritium contaminated parts from multiple pits being affected. The processing schedule for specific pits has not been finalized. The tritium at risk in the SPD EIS accident analysis and the tritium emissions to the atmosphere are conservative estimates that bound the potential environmental impacts of pit disassembly and conversion operations.

FD145–2 **Pit Disassembly and Conversion**

Section 2.4.1.2 was revised to include a description of the processes of verifying the contents of pit shipments and the requirement to survey incoming pits for tritium contamination. The method for determining the types of pits that are contaminated with tritium is classified.

The remainder of this comment is addressed in response FD145–1.

On page 3, paragraph one, the report states, "Because of their construction, some pit types will require capabilities in addition to those tested in the ARIES pilot demonstration. Number and types of pits to be processed in a facility may not be defined until the final implementation of weapons reduction treaties."

- Are there any other pit types besides those containing tritium that require extra capabilities? 3
- Is DOE considering all potential pit types in the PDCF?

On page 2 in the fourth paragraph, the report states that the initial demonstration project involved only seven pit types that "were generally representative of the larger stockpile and relatively straightforward in their construction so there would be no special complications in the ARIES pilot demonstration."

- What special complications are anticipated in the larger-scale plutonium pit disassembly and conversion demonstration and full scale facility? 4
- Where are these special complications reported to the public in the Draft SPDEIS? Will DOE report these special complications in the Final SPDEIS?
- Are the original seven pit types selected for the demonstration "bonded" pits?

On page two of the report is a table showing the potential impurities in the plutonium in plutonium pits.

- Where was this list of impurities reported in the Draft SPDEIS?
- In what end product will these impurities appear? DOE should give a detailed description of whether the impurities will become part of the air pollutant stream, the mixed-waste stream, or the 5
- If the impurities are converted to air pollutants, who will regulate these air emissions?

STAND of Amarillo believes the *ARIES Source Term Fact Sheet* should be added as an Appendix to the Final SPDIES, and is attaching a copy for inclusion.

These comments will be supplemented in the future.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

FD145

FD145–3 **Pit Disassembly and Conversion**

Some pit types have unique features beyond those issues associated with the presence of tritium that may require special handling tools, cutting tools, or procedures. DOE is considering all potential pit types in the pit conversion facility and would actually disassemble up to 250 representative pits during the pit disassembly and conversion demonstration currently being conducted at LANL.

FD145–4 **Pit Disassembly and Conversion**

The pit disassembly and conversion demonstration was expanded to include all pit types in order to avoid potential special complications in a full-scale pit conversion facility. Specifics of the special complications related to the disassembly of some pits discussed in the LANL fact sheet are classified. The environmental impacts resulting from the disassembly of all of the pit types that could be dispositioned through the pit conversion facility were addressed in the analysis presented in Chapter 4 of Volume I. The original seven pit types selected for the demonstration were bonded pits.

FD145–5 **Pit Disassembly and Conversion**

Information presented in the ARIES fact sheet referred to by the commentor was considered in this SPD EIS. Section 2.4.1 was revised to acknowledge the presence of potential impurities in the pits to be dismantled. Appendix H was revised to discuss the inclusion of these impurities in the LLW and TRU waste streams. All gaseous effluent streams coming from the facility would be thoroughly scrubbed or filtered to reduce the amount of undesirable particulates and pollutants. Air leaving gloveboxes in the process line would be filtered through three stages of HEPA filters. By the time any of the impurities joined the facility's exhaust stream, they would likely be in the subparts-per-billion range. Any impurities that were converted to air pollutants would be subject to Federal, State, and local air quality regulations. Some impurities may remain with the plutonium which would be passed through the plutonium-polishing process in the MOX facility as described in the revised Section 2.4.3. In instances of the material being sent directly to the immobilization facility, as in Alternatives 11 and 12, the plutonium could be fed directly into the process. The ARIES demonstration project was analyzed in the *Pit Disassembly and Conversion Demonstration EA* (DOE/EA-1207, August 1998), which is available on the MD Web site at http://www.doe-md.com.

ARIES Source Term

Description

At the end of the Cold War, the United States maintained a large, diverse stockpile of more than 20,000 nuclear weapons (Stockpile Management Preferred Alternatives Report, February 1996). In 1995, the Department of Defense published the Nuclear Posture Review (NPR, 1995), the results of a 10-month comprehensive review to determine the role of nuclear weapons in US security. The report recognized that the security environment had changed dramatically since the end of the Cold War and recommended large reductions in the nuclear weapons stockpile. However, it also recognized the current instability and uncertainty in countries that still control a nuclear arsenal and recommended maintaining a much smaller, enduring nuclear stockpile in the eventuality of disruptions in relationships with these countries. The recommended size of the enduring stockpile was assumed to be 3,500 nuclear warheads, the number permitted after achieving full reductions called for in the ratified Strategic Arms Reduction Treaty (START) I and in the currently unratified START II. Thus, in the foreseeable future, more than 16,500 nuclear weapons could be dismantled in the United States.

A portion of these excess weapons have already been removed from the active stockpile. Plutonium from the pits of these decommissioned nuclear weapons is part of the 38.2 metric tons of weapons-usable plutonium declared excess to national security needs as part of the Department of Energy (DOE) Openness Initiative (Openness Press Conference Fact Sheet, February 6, 1996). The disposition of excess plutonium from the pits of dismantled weapons, the retirement stockpile, is the responsibility of the Department of Energy Office of Fissile Material Disposition (DOE-MD). To comply with Presidential Directive (Clinton, September 23, 1993), plutonium must be extracted from pits by the Advanced Recovery Integrated Extraction System (ARIES) or some other process to make it available for international accountability without transferring weapons design information.

The strategic reserve contains nuclear weapons that have not been retired but are not part of the enduring stockpile. As weapon dismantlement and other programs continue to be reviewed, plutonium in some of the weapons from the strategic reserve may also be declared excess to national security needs and offered for international inspection. These pits will also require processing by ARIES, or a process with similar capabilities.

The total number of pits, and the corresponding quantities of plutonium in weapons in the retirement stockpile, the strategic reserve, and the enduring stockpile may be found in the classified report "Selection of Pits for Integrated Demonstration of ARIES," (Brough et. al., 1996).

Preliminary schedules for surplus weapons-usable plutonium disposition estimate 10 years of operation for the pit conversion process (DOE-MD-003, July 17, 1996).

FD145

Description cont.

There are roughly 40 different pit types. Pits can be generically characterized as nested shells of materials in different configurations and constructed by different methods. Elements of construction that may be found in pits processed by ARIES include the following: vanadium, erbium, titanium, chromium, boron (enriched in ^{10}B), aluminum, stainless steel, tritium (^{3}H), beryllium, plutonium, uranium (^{235}U enriched and depleted), and gallium. Maximum concentrations of impurities in plutonium are as follows.

Element	Concentration (PPM)	Element	Concentration (PPM)
Aluminum	*	Nickel	**
Americium	200	Neptunium	100
Boron	50	Lead	100
Beryllium	3	Silicon	*
Carbon	200	Tin	100
Calcium	500	Tantalum	100
Cadmium	10	Thorium	100
Chromium	100	Titanium	100
Copper	100	Uranium	100
Iron	**	Tungsten	200
Gallium	*	Zinc	100
Magnesium	500	Tritium	10 mCi/kg
Manganese	100		

*For Ga, Al, and Si, the limit is 4 (ppm Ga) + 10 (ppm Al) + 10 (ppm Si) < 1300 ppm.
**Fe + Ni < 400 ppm

Relation to the Study

Detailed knowledge of the rate of throughput and the physical and chemical nature of the pits are required to do detailed design work on an ARIES facility.

Status

The ARIES pilot demonstration will process 50 pits consisting of seven design types. This selection was made entirely from pit types currently in the retirement stockpile. Selection criteria were established to select types that were generally representative of the larger stockpile and relatively straightforward in their construction so there would be no special complications in the ARIES pilot demonstration (Brough et al., 1996).

The report by Brough et al., 1996, includes a generalized summation and categorization of all the pit types in the nuclear stockpile. There are however, detailed descriptions only for the seven types that will be processed in the ARIES pilot demonstration.

FD145

Issues

A facility will be required to process all pit types declared excess to national defense needs. A classified report similar to the one by Brough et al., 1996, containing information about all pit types to be processed will be required. Because of their construction, some pit types will require capabilities in addition to those tested in the ARIES pilot demonstration. Number and types of pits to be processed in a facility may not be defined until the final implementation of weapons reduction treaties.

A significant number of pits processed by the ARIES facility will contain tritium. None of these pits were selected as part of the ARIES pilot demonstration because of the difficulties associated with handling tritium. Decisions regarding the presence of tritium will be made before processing pits in the ARIES facility. These decisions may be based upon prior knowledge or upon a sampling strategy for detecting tritium. A strategy for detecting tritium in pits was devised while planning for the reconfiguration of the nuclear stockpile complex. Tritium-containing pits will be sent to a special tritium recovery module. Processes for disassembling tritium-bearing pits are being developed at Los Alamos. When development is completed, these processes must be included in the ARIES facility design and construction.

Options

Before final decisions are made regarding the number and type of pits to be converted, working assumptions can be constrained on the low side by the requirements to process the current retirement stockpile. On the high side, system requirements can be defined by all pits that will not be part of the enduring stockpile.

Implementation

Space and equipment needs for the ARIES facility will be defined by the number and types of pits that will be processed and by the period of time allocated to process them.

References

Department of Energy, "Stockpile Management Preferred Alternatives Report, in Support of the Stockpile Stewardship and Management Programmatic Environmental Impact Statement," draft (February 1996).

Department of Defense, "Nuclear Posture Review," in the Annual Defense Report, ISBN 0-16-048573-8 (1995).

Department of Energy Office of Congressional, Public, and Intergovernmental Affairs Openness Press Conference Fact Sheets, "Department of Energy Declassifies Location and Forms of Weapons-Grade Plutonium and Highly Enriched Uranium Inventory Excess To National Security Needs" (February 6, 1996).

President Bill Clinton, "US Nonproliferation and Export Control Policy," Presidential Decision Directive-13 (September 23, 1993).

Winslow S. Brough, Dewey S. Rawsoscroft, and Wendel Brown, "Selection of Pits for Integrated Demonstration of ARIES," Los Alamos National Laboratory report CLY96-0010 (1996).

FD145

References cont.

Department of Energy Office of Fissile Materials Disposition, "Technical Summary Report for Surplus Weapons-Usable Plutonium Disposition," DOE-MD-003, Rev. 0 (July 17, 1996) Figures 5-1-5-7.

FD145

STAND of Amarillo, Inc.

August 4, 1998
STAND COMMENT # 3
Surplus Plutonium Disposition Draft Environmental Impact Statement
(Draft SPDEIS)

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

RE: Plutonium Pit Disassembly and Conversion and Beryllium-Clad Plutonium Pits

On page 2-14 of the Draft SPDEIS is a "depiction" of a plutonium pit (Figure 2-6) that illustrates a pit with a stainless steel case. In the November, 1997 Defense Nuclear Facilities Safety Board (DNFSB) Technical Report 18: *Review of the Safety of Storing Plutonium Pits at Pantex*, there are frequent references to "beryllium-clad" plutonium pits.

- Why are plutonium pits not depicted with beryllium cladding?
- In the Final SPD-EIS, DOE should define the differences in processes, waste streams, and health hazards expected from processing beryllium-clad pits versus stainless-steel-clad pits. 1
- Since beryllium clad pits are more susceptible to corrosion from chlorine and moisture, what measures will be taken to insure these pits are intact upon arrival at the PDCF?

Also on page 2-14, it states that gallium is "alloyed" with plutonium in pits and must be removed if the PDCF product is plutonium powder for use in MOX fuel.

- Does the gallium have to be removed if the PDCF product is plutonium powder for use in the immobilization facility?
- What other impurities that are listed on page 2 of the ARIES fact sheet are "alloyed" with plutonium and are a concern for either disposition option? 2

These comments will be supplemented in the future.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

(806) 358-2622 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 355-3837

FD146

FD146–1 **Alternatives**

Section 2.4.1 was revised to include a discussion of beryllium as a potential impurity, as well as the reasons why beryllium processing would not be an issue at the pit conversion facility. Figure 2.6 was revised to change the term "stainless steel case" to "outer case"; it is not meant to portray all the variations in pit design and construction. Irrespective of the cladding material, the process would be the same for dismantling and converting all pits. As discussed in Section 2.4.1.2, the main criterion in determining how the pits would be dismantled depends on the presence of tritium, not beryllium. Because the beryllium is expected to remain in metal form at all times, the health hazards are minimized. The beryllium would be present in large pieces and cuttings created when the pit was bisected. These cuttings would be too large to become airborne. There would be no grinding; thus, there would not be any pieces of beryllium small enough to become airborne. Because the pieces and cuttings would be contaminated with trace levels of radioactive materials, they would primarily be disposed of as TRU waste and is included in the waste projections in this SPD EIS.

FD146–2 **Plutonium Polishing and Aqueous Processing**

Gallium and other impurities would not have to be removed if the plutonium dioxide from the pit conversion facility were to be used in the immobilization facility. Technically, the term "alloyed" refers to materials purposely added to metals to cause a change in physical characteristics. From this point of view, the elements other than gallium in the referenced table are deemed impurities. The levels given in the table are maximums; actual levels are being established based on review of archival data and sampling and analysis associated with ongoing R&D efforts. DOE has included plutonium polishing as a component of the MOX facility to ensure adequate gallium and impurity removal from the plutonium dioxide. Section 2.4.3 and the hybrid alternatives analyses in Chapter 4 of Volume I were revised to include a discussion of plutonium polishing.

Section 2.4.1 was revised to acknowledge the presence of potential impurities in the pits to be dismantled.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 1 OF 2

STAND of Amarillo, Inc.

September 15, 1998

STAND COMMENT # 4
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Plutonium Pit Disassembly and Conversion Demonstration Project

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

There are conflicting objectives being reported for the plutonium pit disassembly and conversion demonstration project. On the one hand, the demonstration project research and development contractors at Los Alamos National Laboratory describe the project as being essential for designing the plutonium pit ditassembly and conversion facility (PDCF):

- On Page 2 of the ARIES Fact Sheet, it states in reference to the Pilot Demonstration Program at Los Alamos that, "detailed knowledge of the rate of throughput and the physical and chemical nature of the pits are required to do detailed design work on an ARIES facility."

  At the MOX Industry Conference in Atlanta on May 21, 1998, demonstration project personnel stated that the data from the ARIES demonstration is "needed to support PDCF design."

On the other hand, DOE has characterized the demonstration project as more of a supplement to the design work: 1

- On Page 1-11 of the Draft SPDEIS, DOE wrote that the demonstration project, "would help 'fine tune' the operational parameters of the pit conversion facility."

- In the Plutonium Pit Disassembly and Conversion Environmental Assessment Pre-Approval Review, DOE wrote that the resulting experience from the proposed demonstration project would "be applied to expedite the design of the production disassembly and conversion facility should it be decided to construct this facility in the SPD EIS ROD."

What is the exact purpose of the demonstration project? There does not seem to be a consistent set of objectives being reported.

(806) 358-2622 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 355-3837

FD302

FD302–1 **Pit Demonstration EA**

DOE believes that the *Pit Disassembly and Conversion Demonstration EA* (DOE/EA-1207, August 1998) clearly sets forth the basic objectives of this demonstration, as follows: demonstrate the feasibility of the pit disassembly and conversion processes; test various processes for the different parts of the pit disassembly and conversion process to optimize procedures and parameters and reduce dose to workers (as the number of pits to be dismantled would significantly increase); develop processes, procedures, and equipment for the disassembly of all types of surplus pits; and demonstrate that the plutonium metal from pits of varying types can be consistently converted to an oxide form that is suitable for use as feed for immobilization and MOX fuel fabrication.

As the EA also reflects, the resulting experience from this demonstration would be used to supplement information developed to support the design of the full-scale conversion facility should DOE decide to construct that facility. It was never DOE's intention that this demonstration would be the only source of information relevant to the design work for a full-scale pit conversion facility. DOE does not believe that the examples provided by the commentor to support the position that there are conflicting objectives on this demonstration contradict DOE's position on the use of information from the demonstration, but simply use different but compatible words to describe that process.

How can DOE propose to design and construct a facility before detailed information from the demonstration project is available? One of the "Lessons Learned" from plutonium pit storage was that, "in order to obtain cost avoidance and remain on schedule, it is important to identify all requirements prior to design."[1]

At what point will DOE decide whether the technologies it is proposing to use are feasible at an industrial scale? 2

DOE should determine what the requirements are for the pit disassembly and conversion facility before it endeavors to build the facility.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

FD302

FD302–2 **Pit Demonstration EA**

DOE is not proposing to design and construct a full-scale pit conversion facility before information from the pit disassembly and conversion demonstration is available. Should DOE decide to build a full-scale pit conversion facility, the tentative schedule reflects that construction would begin sometime in 2001. Facility design, however, would take place during approximately 1999-2001. The demonstration would focus on equipment design and process development. Because the demonstration could continue for up to 4 years, information transfer conducive to fine-tuning of the operational parameters of a pit conversion facility can be provided continually throughout the facility design phase. Also, because the information from the demonstration would be used to supplement other information developed to support the design of a full-scale pit conversion facility, it would not be necessary for the demonstration to be completed before beginning facility design and initial construction. These processes can be carried on simultaneously. While DOE believes that a full-scale pit conversion facility is feasible, it would not build such a facility until it has been determined that the proposed technologies and required capabilities it is proposing are clearly shown to be feasible. The pit disassembly and conversion demonstration will play a significant role in this process.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 1 OF 3

STAND of Amarillo, Inc.

September 15, 1998

STAND COMMENT # 5
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Alternatives for Plutonium pit disassembly and conversion

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

The Draft SPDEIS does not contain, as required by NEPA, a discussion or analysis of the reasonable alternatives that are available to disassemble plutonium pits and convert plutonium metal to a declassified form suitable for both long-term disposition and international inspections and safeguards.

In related NEPA documents, DOE has never evaluated the range of options available for disassembling plutonium pits and converting the plutonium in the pits to meet storage and disposition objectives. Instead, DOE chose a plutonium pit disassembly and conversion process (ARIES) that was not originally designed to produce materials suitable for disposition technologies, and which the MOX Industry considers a controversial technology. By pursuing this approach to plutonium pit disassembly and conversion, DOE has been in violation of NEPA for failing to conduct an analysis of the full range of alternatives for demilitarizing plutonium pits and converting plutonium to a form suitable for long-term storage and/or disposition.

In the SPDEIS, DOE must:

1. *Analyze the full range of technological options that are available to disassemble plutonium pits and convert plutonium metal to a declassified form suitable for both long-term disposition and international inspections and safeguards.*

2. *Analyze the range of technical options that have been addressed in other DOE and contractor analyses.* In its Technical Risk Assessment (TRA)[1] for the PDCF, DOE contractors evaluated three options for plutonium pit disassembly and conversion:

- The Baseline Option which would require processing of whole pits at the PDCF but not pit parts and plutonium not associated with pits; production of both metal and oxide by the PDCF; and the only contaminants of concern for MOX fuel that would be removed is gallium.

[1] Kidinger, John, ARES Corporation, John Darby and Desmond Stack, Los Alamos National Laboratory. 1997. Technical Risk Assessment for the Department of Energy Pit Disassembly and Conversion Facility Final Report. September, 1997. LA-UR-97-2236.

(806) 358-2622 7105 W. 34th Ave. Suite E · Amarillo, TX 79109 FAX (806) 355-3837

FD303

FD303–1 **Alternatives**

DOE determined that aqueous processing was not a reasonable alternative for pit conversion because current aqueous processes using existing facilities would produce significant amounts of waste, and aqueous processing would complicate international safeguard regimes. Dry processing was analyzed in the *Storage and Disposition PEIS* and this SPD EIS.

Processing pits and clean metal plutonium in the pit conversion facility is analyzed in this EIS. This analysis bounds all of the variations of starting materials listed in the comment that could be processed in the pit conversion facility. This statement is based on two facts. First, the amount of clean metal that would be processed in the pit conversion facility is small compared with the amount of material coming from pits. Second, DOE is not proposing to process pit parts or other plutonium not associated with pits in the pit conversion facility. These materials would be converted to an oxide form in the conversion area of the immobilization facility. DOE is not including the plutonium-polishing process (a small-scale aqueous process) as part of the pit conversion facility; that process would be part of the MOX facility. DOE would use only dry processes in the pit conversion facility. For this reason, the thermal process for removing gallium may not be needed in the pit conversion facility (see revised Section 2.4.1.2). Section 2.4.3 was revised to include a description of the plutonium-polishing process that would be used in the MOX facility. Plutonium dioxide is the starting form for the disposition of surplus plutonium for either the immobilization or MOX approach. This EIS analyzes the environmental impacts of converting surplus pits into plutonium dioxide that can be used in either the immobilization or MOX facility. No additional aqueous processing would be necessary to prepare the plutonium dioxide for immobilization.

- The MOX Grade Oxide Option which would require processing of all plutonium pits and plutonium not associated with pits; production of both metal and oxide; production of plutonium oxide that will be of MOX fuel quality that will involve removing other contaminants such as americium-241; and processing to stabilize and recover materials from classified internal parts. This option appears to most closely resemble the Design-Only Conceptual Design Concept for the PDCF and the presentations made by LANL personnel at the MOX industry conference in Atlanta.

- The Metal-Only Option in which only "nonproblem pits will be processed and the product will be metal only, with no oxide produced."

Both the MOX and Baseline Options, as well as the conversion process for the immobilization facility, involve the use of the HYDOX process, even though the Technical Risk Assessment reported, "significant disagreement among technical persons as to whether HYDOX is required and whether or not HYDOX is the preferred technique when producing plutonium oxide." The report further stated that, "many of the pits, perhaps as many as 80%, can bypass the hydride/dehydride (conversion to metal) module as the plutonium metal can be mechanically separated from the pits."

3. *Analyze the various options involved with "aqueous" processing*, also known as reprocessing and "chemical purification," that DOE has repeatedly left open as an option to thermal processes. At the May 20-21, 1998 MOX Industry Conference in Atlanta, considerable objections were raised to the proposed plutonium conversion processes by members of consortiums seeking to design, construct, and operate a MOX fuel fabrication facility. DOE has repeatedly cited aqueous processes as an option to produce MOX fuel feedstock if the proposed thermal processes are not demonstrated to be feasible to meet this objective. At the Atlanta MOX conference, LANL personnel identified "aqueous derived oxide" as another "near future" source of plutonium oxide. 1

More recently, DOE allowed consortiums bidding to construct and operate a MOX fuel fabrication facility to add a "plutonium polishing facility." A plutonium polishing facility would be added to the MOX fuel plant and where plutonium metal or oxide produced at the PDCF "can be dissolved...in nitric acid with the minimal usage of hydrofluoric acid, and its complexing agent, aluminum nitrate."[2]

In the Draft SPDEIS, DOE analyzed aqueous processing only as a "contingency." This is an insufficient analysis, as DOE clearly considers the "polishing" process to be a reasonable, and even likely alternative. By identifying liquid acid plutonium pit processing only as a contingency, DOE also skewed the analysis in favor of the MOX option.

---

[2] Draft Data Report for Generic Site Add-On Facility for Plutonium Polishing, 1998, Oak Ridge National Laboratory

FD303

4. *Identify and analyze the range of alternatives for a final product from plutonium pit disassembly and conversion.*

DOE should identify and analyze the different requirements--in terms of activities, hazards, impacts, and risks--between the various plutonium end-products that could result from plutonium pit disassembly and conversion. For example, the alternative of gallium removal is not discussed in the context of immobilization. The various end products DOE should analyze include:

- plutonium oxide suitable for use in Mixed Oxide (MOX) fuel;
- plutonium oxide suitable for use in the Ceramification Can-In-Canister variant of immobilization; 1
- plutonium oxide suitable for both storage and disposition;
- plutonium metal and/or oxide suitable for storage;
- plutonium metal suitable for storage while awaiting conversion for disposition.

Specifically, DOE must identify whether dry plutonium conversion processes being proposed for the immobilization facility will produce a suitable product for the immobilization technology, or whether aqueous processing is also necessary for immobilization.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

FD303

STAND of Amarillo, Inc.

September 15, 1998

STAND COMMENT # 6
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Use All Available Information

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

DOE must incorporate all available information about plutonium disassembly and conversion processes into its NEPA process and documents. The public should be fully informed as to what is actually being proposed, the actual range of impacts and risks from proposed activities, and the technical uncertainties involved with the proposed plutonium processing techniologies. Since the January 1997 decision on the Storage and Disposition PEIS, DOE has made considerable changes that are not reflected in the Record of Decision, and is obligated to use this opportunity to address those changes and provide to the public a clear picture of its proposed actions and ongoing activities. 1

DOE is already implementing a procurement process for the design, construction, and possible operation of a full scale plutonium pit disassembly facility. DOE already has accepted bids for the Architecture and Engineering services for designing the facility. Procurement solicitations are not pursued casually due to the high costs to industry to compile bid packages. The information pertaining to procurement must be of high quality to avoid lengthy and costly litigation.

However, for all parts of the plutonium disposition program, the information pertaining to procurement is often very different from the information presented in DOE's NEPA documents. Two documents related to the procurement process that are uncited and not referenced in the PDCD-EA, yet provide considerably more accurate and comprehensive information are:

- Los Alamos National Laboratory and Fluor Daniel, Inc. 1997. *Design-Only Conceptual Design Report for the Pit Disassembly and Conversion Facility.* Project Nu. 99-D-141. Prepared for the DOE Office of Fissile Materials Disposition. December 12, 1997. (PDCF Design Report) 2

The general design diagrams of the PDCF (Figures 2-7 to 2-9, Pages 2-16 to 2-18) reported in the Draft SPDEIS are considerably different than the design diagrams in the Design Report. DOE should explain these differences in the SPDEIS.

- Kidinger, John; ARES Corporation, John Darby and Desmond Stack, Los Alamos National Laboratory. 1997 Technical Risk Assessment for the Department of Energy Pit Disassembly and Conversion Facility Final Report. September, 1997 LA-UR-97-2236.

(806) 358-2622 7109 W. 34th Ave. Suite E • Amarillo, TX 79109 FAX (806) 355-3837

FD304

FD304–1 General SPD EIS and NEPA Process

DOE acknowledges the commentor's remarks concerning the completeness of this SPD EIS, public information, technical uncertainties, and changes since the January 1997 ROD on the *Storage and Disposition PEIS.* DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). It is intended as a source of environmental information for the DOE decisionmakers and the public. The primary objective of this EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. As with any EIS, technical information is included to the extent that it is required to understand those actions and impacts. Plutonium-processing technologies proposed by DOE are discussed in Sections 2.4.12 and 2.4.3.2. Disposition facilities analyzed in this EIS are consistent with the decision made in the *Storage and Disposition PEIS* ROD as amended.

FD304–2 Pit Disassembly and Conversion

DOE has accepted qualification bids only for the design of the facility and agrees that information pertaining to procurement must be of high quality. Qualification bids are relatively inexpensive to prepare. Neither of the two documents cited by the commentor was used in preparing the *Pit Disassembly and Conversion Demonstration EA* (DOE/EA-1207, August 1998). The information presented in those two documents is not specific to the demonstration as it would be set up within TA–55 at LANL. While those documents contain information beyond the scope of this EA, the information may be of interest to the public. Therefore, both documents were referenced in the final EA as sources of additional information.

There are differences in the design diagrams because this SPD EIS presents a more conservative view than the Design-Only Conceptual Design Report, which was a preliminary effort, to establish a bounding condition for analysis of environmental impact.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 2 OF 3

The TRA exemplifies of how DOE technical documents drafted for internal distribution are generally coherent, clear, concise, and comprehensive. In contrast, documents written for public distribution--such as the SPDEIS--are generally incoherent, confusing, vague, redundant, and incomplete.

- DOE must incorporate the findings of the Technical Risk Assessment into the Final EIS, and could include it as a separate appendix. 3
- DOE should incorporate the recommendations of the TRA into the final SPDEIS and discuss to what extent the findings in the TRA were incorporated into the Draft SPDEIS.

The TRA provides additional support for removing Pantex as a plutonium processing candidate site. The strongest recommendation made by the TRA (Page 69) is that, "it is recommended that the site selection process for the PDCF strongly consider the existing site capabilities and experience in those areas." It is not evident that DOE has considered the capabilities and experience of the candidate sites during the SPDEIS process.

The TRA team (Page 74) reached the same conclusions as the general public, that "the site-selection process for the PDCF now in progress includes a very limited evaluation of attributes." Yet, DOE forged its evaluation to fit the desired decision, rather than an openly and honestly evaluate reasonable and realistic criteria that would guide a decision for the public good.

In general, the TRA's lowest risk rankings correspond to those processes that DOE has identified as site selection criteria, and the highest risk rankings correspond to processes that DOE has not identified as site selection criteria. 4

- The TRA's lowest risk ranking was assigned to the "Safeguards and Security System," yet DOE is identifying safeguards and security as a key evaluation criteria.
- Pit shipments were not identified by the TRA as a critical risk, whereas plutonium product shipping made the critical risk list. DOE reversed this risk ranking in the Draft SPDEIS.
- Radiation monitoring and dosimetry, relatively minor programs at Pantex, are listed as a high risk factor in the TRA. Radiation accident potential is listed as high risk factor for key PDCF components such as HYDOX, Gallium Removal, and chemical purification.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

FD304

FD304–3 **Pit Disassembly and Conversion**

Technical risk assessments are important in that they enable the decisionmaker to make an informed decision. The TRA addresses technical, cost, and schedule risks of the proposed pit conversion facility. Findings and recommendations presented in the TRA have been taken into consideration in developing the proposed pit disassembly and conversion process, and research is ongoing to minimize the risk factors that have been identified.

This SPD EIS characterizes the bounding environmental impacts of the pit disassembly and conversion operations. Insofar as the technical risks expressed in the TRA affect these environmental impacts, they are reflected in this EIS.

FD304–4 **Alternatives**

Section 2.3.1 of the SPD Draft EIS explained that a range of 23 reasonable alternatives remained after evaluating over 64 options against three screening criteria: worker and public exposure to radiation, proliferation concerns due to transportation of materials, and infrastructure cost. These 23 reasonable alternatives were evaluated in the SPD Draft EIS. After the Draft was issued, 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 the 15 that are analyzed in the SPD Final EIS. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for the proposed surplus plutonium disposition facilities. The results of these analyses, presented in Chapter 4 of Volume I and summarized in Section 2.18, demonstrate that the activities would not have major impacts on any of the candidate sites.

While the findings of the TRA were considered as discussed in response FD304–3, other siting considerations were also used as discussed above. Where there are differences between the findings in the TRA and the data used in this EIS, efforts have been made to use the latest data.

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. In determining its preference, DOE also considered the transportation requirements for each alternative. All the candidate sites were considered to have adequate safeguards and security systems in place, as well as the capability to perform the necessary radiation monitoring and dosimetry. Potential accidents for the three proposed surplus plutonium disposition facilities at all of the DOE candidate sites are analyzed in Chapter 4 of Volume I and Appendix K. 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.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 1 OF 3

STAND of Amarillo, Inc.

September 15, 1998

STAND COMMENT # 7
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Analyzing Significant Impacts

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

There will be significant direct and cumulative effects of the preferred alternatives in the Draft SPDEIS that have not been properly analyzed in by DOE.

A. The most significant direct effects of the proposed action will be air emissions of radioactive and nonradioactive materials.

According to the Draft SPDEIS, routine releases of tritium at the Pit disassembly and conversion facility (PDCF) during normal operations are expected to be as high as 1100 curies per year. For Pantex, this would constitute a significant impact. During current missions and operations, a similar impact would only occur only in the event of an accident. The proposed allowable and routine tritium releases would be more than 10,000 times higher than the releases from routine operations at Pantex today. 1

DOE also failed to report known sources of air pollution that will result from the proposed action. Most importantly, DOE neglected to identify and address beryllium air emissions. The PDCF *Design-Only Conceptual Design Report* states that, "the National Emissions Standards for Hazardous Air pollutants (NESHAP's) are applicable to the PDCF, specifically regulating emissions from beryllium and radionuclides to the ambient air" and that "an application for approval of construction or modification of an existing source is mandatory for the owner or operator of a beryllium or radionuclide operations." Clearly, the design documents identify the PDCF as a beryllium operation. 2

In its 1994 Environmental Checklist for ARIES, LANL wrote that, "Beryllium is handled in the PDCF as relatively large pieces. The pit cutting operations will make beryllium chips and turnings, but these are relatively large particles not easily entrained." However, the ARIES EC also contained the statement that, "the expected emissions are within the quantity allowed under the current beryllium permit for TA-55-4."[1]

[1]U.S. DOE 1994. Memorandum from M. Diana Webb, NEPA Compliance Officer to Jeff Robbins, NEPA Compliance Officer. Re: DOE Environmental Checklist.

Page 1 of 2

(806) 358-2622 7105 W. 34th Ave. Suite E • Amarillo, TX 79109 FAX (806) 355-3637

FD305

FD305–1 **Human Health Risk**

The bounding alternative would be locating the pit conversion and MOX facilities at Pantex (see Alternative 9). About 0.000104 Ci/yr of plutonium and americium and 1,100 Ci/yr of tritium, total, would be released to the atmosphere from these facilities. In 1996, the airborne releases from Pantex operations were 1.6×10^{-17} Ci of thorium 232, 0.000146 Ci of uranium 238, and 0.103 Ci of tritium (*1996 Environmental Report for Pantex Plant*, DOE/AL/65030-9704, May 1997). While the commentor is correct in stating that plutonium processing would result in radiation releases greater than those from current operations, including a tritium release 10,000 times greater, the doses and resulting adverse health effects associated with the increased releases would be very small. The dose to the MEI from these facilities would be increased by 0.068 mrem/yr, and the dose to the population living within 80 km (50 mi) of Pantex in 2010 would be increased by 0.59 person-rem/yr. For 10 years of normal operation, the increased risk of an LCF to the MEI would be 3.4×10^{-7}, and the increased number of LCFs to the 80-km (50-mi) population would be 0.003.

FD305–2 **Air Quality and Noise**

The 1994 analysis performed by LANL referred to the possibility of airborne releases of beryllium, a hazardous air pollutant, from pit disassembly and conversion. Subsequent analysis from LANL indicates that there would not be any airborne releases of beryllium (*Pit Disassembly and Conversion Facility, Environmental Impact Statement Data Report—Pantex Plant*, LA-UR-97-2909, June 1998). Because the beryllium is expected to remain in metal form at all times, the health hazards are minimized. The beryllium would be present in large pieces and cuttings created when the pit was bisected. These cuttings would be too large to become airborne. There would be no grinding; thus, there would not be any pieces of beryllium small enough to become airborne. Because the pieces and cuttings would be contaminated with trace levels of radioactive materials, they would primarily be disposed of as TRU waste and is included in the waste projections in this SPD EIS.

Section 2.4.1.1 was revised to discuss beryllium and its presence in the pit conversion facility.

C. The most significant cumulative effect is the introduction of plutonium processing missions to a DOE site that has never conducted these missions. In the Stockpile Stewardship and Management PEIS (1996), DOE reported that, "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 operations into sites without current plutonium capabilities."

DOE identifies Pantex in numerous documents, including the Draft SPDEIS, as not having existing plutonium processing capabilities. DOE must analyze the high cost and complexity of introducing plutonium operations to Pantex, including, but not limited to developing the infrastructure required to a successful implementation of this mission–that adequately protects workers, the community, and the environment. 3

In addition, DOE must analyze the long-term cumulative effects of building new Category I nuclear facilities. These facilities will, in all likelihood, be used for subsequent plutonium missions, so the analyses for building and operating new plutonium facilities must take into account the probability of subsequent missions, including the environmental remediation that will follow.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

Page 2 of 2

FD305

FD305–3 **Alternatives**

The *Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management* (SSM PEIS) (DOE/EIS-0236, September 1996) states that the pit fabrication mission would not be introduced into a site that does not have an existing plutonium infrastructure because of the high cost of new plutonium facilities and the complexity of introducing plutonium operations into sites without current plutonium capabilities. The SSM PEIS states further that an important element of the site selection strategy is to maximize the use of existing infrastructure and facilities as the nuclear weapons complex becomes smaller and more efficient in the 21st century; thus, no new facilities were to be built to accommodate stockpile management missions. Accordingly, DOE considered as reasonable only those sites with existing infrastructure capable of supporting a pit fabrication mission. Although Pantex has the infrastructure to carry out its current weapons assembly and disassembly mission and nonintrusive pit reuse program, it was not considered a viable alternative for the pit fabrication mission because it did not possess sufficient capability and infrastructure to meet the SSM PEIS siting assumption stated above. Among the operations that were considered in developing siting alternatives for pit fabrication in the SSM PEIS were plutonium foundry and mechanical processes, including casting, shaping, machining, and bonding; a plutonium-processing capability for extracting and purifying plutonium to a reusable form either from pits or residues; and assembly operations involving seal welding and postassembly processing.

When comparing the site selection strategy for pit disassembly and conversion with that used for the pit fabrication mission, the siting criteria in the SSM PEIS have little or no bearing on siting criteria used in this SPD EIS. Pit disassembly and conversion do not require the foundry and mechanical processes discussed in the SSM PEIS and can be accomplished in a stand-alone facility Also, the SSM PEIS siting assumptions include a requirement to use existing facilities, whereas, the pit conversion facility would be a new structure no matter where it is located.

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*

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 3 OF 3

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.

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.

STAND of Amarillo, Inc.

September 15, 1998

STAND COMMENT # 2
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Insufficient Analysis of Groundwater Impacts

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management.

DOE must conduct a full analysis to address increased tritium contamination in regional groundwater resources at all candidate sites. STAND's primary concern is the Ogallala aquifer—regionally critical to both urban and rural areas—and other groundwater resources at Pantex. Because tritium concentrations in groundwater throughout the U.S. physically reflects historical DOE activities, DOE has much experience to reference. DOE must use this experience and report effects of tritium releases of past activities and, at a minimum, clearly identify pathways for tritium through the environment. 1

In the Draft SPDEIS DOE wrote that, "the Storage and Disposition PEIS concluded that the facility would not have any impact on groundwater quality. There are no new data available to indicate that this conclusion should be revisited." Indeed, significant new data are available to the public and this conclusion is absolutely inaccurate. Most significant is the operation of a Special Recovery line in the PDCF which would result in airborne emissions of 1,100 curies per year of gaseous tritium. These emissions represent a 10,000 fold increase over existing levels at Pantex

For a PDCF, DOE has indicated that, "the most severe consequences of a design basis accident...would be associated with a tritium release." (Page 4-89). The tritium release would involve "a major glovebox fire is assumed to heat multiple parts contaminated with up to 20 grams of tritium and convert it all to tritiated water vapor....resulting in a release of 20 grams through the stack to the atmosphere." This accident would release nearly 200,000 curies of tritium to the atmosphere. The risk of this accident occurring ranges from 1 in 10,000 to 1 in 1,000,000. The wide range of this risk estimate indicates great uncertainty in DOE's estimates. 2

When DOE was rationalizing plutonium pit storage at Pantex, it conducted a study evaluating the risks of contaminating the Ogallala aquifer with plutonium. This same approach is necessary for the design basis accident for the PDCF.

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

(806) 358-2622 7106 W. 34th Ave. Suite E • Amarillo, TX 79109 FAX (806) 355-3837

FD306

FD306–1 **Human Health Risk**

DOE acknowledges that the estimated gaseous tritium release of 1,100 Ci/yr from the pit conversion facility would result in a tritium release 10,000 times greater than existing levels at Pantex. However, these releases to the air would have no impact on groundwater quality during normal operations. The doses and resulting adverse health effects (via the inhalation and ingestion pathways) associated with this increased release would be very small. The dose to the MEI would be increased by 0.062 mrem/yr, and the dose to the population living within 80 km (50 mi) of Pantex in 2010 would be increased by 0.58 person-rem/yr. For 10 years of normal operation, the increased risk of an LCF to the MEI would be 3.1×10^{-7}, and the increased number of LCFs to the 80-km (50-mi) population would be 0.0029.

FD306–2 **Facility Accidents**

The assessment of consequences of the accidental tritium release is consistent with the methodology used in the *Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling* (DOE/EIS-0161, October 1995). Unlike plutonium, oxidized tritium (i.e., water vapor) does not significantly deposit on the ground for subsequent percolation into the local groundwater except in cases of rain or dew. Pantex has a relatively arid climate, so the chance of these weather conditions at the time of an accident is slight.

Moreover, even if it were to happen, Section 4.6.1.2 of 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) indicates that actual movement of contaminated groundwater off the site would require about 10 to 20 years, and may take as long as 50 or more years to move a contaminant plume off the site using the most current test data. The half-life of tritium is 12 years; therefore, the actual quantity of any hypothetical contamination would be reduced by a factor of roughly 2 to 16 by the time it moved off the site. Because of these considerations, health consequences as a result of contamination of the Ogallala aquifer were not considered to be characteristic of a tritium release accident. Appendix K.1.4.2 was revised to include a discussion of the treatment of groundwater accidentally contaminated by tritium.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 1 OF 3

STAND of Amarillo, Inc.

September 28, 1998

STAND COMMENT # 09
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Insufficient Analysis of Visual Impacts of New Plutonium Facilities

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

The Draft SPDEIS contains an insufficient and inconsistent analysis of the visual impacts of locating new plutonium facilities at Pantex. STAND believes that constructing and operating plutonium disposition facility or facilities in Zone 4 at Pantex would constitute an obvious, dramatic landscape change and thus have a negative impact on the visual quality of the area.

The Department of Energy must conduct a rigorous analysis--applying consistent methodology and criteria--of the effects on visual quality from new plutonium facilities at Pantex. The analysis must include an assessment of the effects on surrounding private property values created by major landscape changes. DOE must conduct an analysis of the changes in visual quality from constructing and operating plutonium facilities in Zone 4 at Pantex. A simple comparison of existing conditions in Zone 4 versus proposed conditions in Zone 4 shows a obvious change in the visual character. 1

Zone 4 Existing

No smokestack
No manufacturing or processing facilities
Storage facilities 14-16 feet high

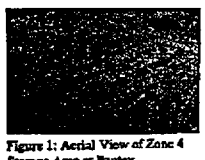


Figure 1: Aerial View of Zone 4 Storage Area at Pantex. (Credit: Robert Del Tredici)

Zone 4 Proposed

115-foot high smokestack at PDCF
Two storied plutonium processing facilities
Storage facilities would remain

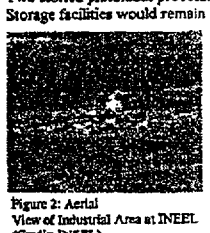


Figure 2: Aerial View of Industrial Area at INEEL (Credit: INEEL)

806) 359-3600 7108 W 34th Ave Suite F - Amarillo TX 79109 FAX (806) 355-3837

FD334

FD334–1 **Land Use and Visual Resources**

On the basis of public comment and to correct inaccuracies, the Land Use and Visual Resources sections of Chapter 4 of Volume I for all the candidate sites were reviewed and revised, as appropriate, to ensure consistency in the analyses of the candidate sites. Specifically, Section 4.26.3.5.2 was revised to clarify that the proposed surplus plutonium disposition facilities would be the tallest and largest facilities in Zone 4 and would be visible from U.S. Route 60.

As a point of clarification, the "smokestack" referenced in connection with pit conversion facility is not intended to discharge smoke under normal operating conditions. It would be used to transport air from the building to the outside via the building's ventilation system. The expected emissions from this stack are characterized in Appendixes G and J.

STAND Comment #9, Page 2 of 3

In the Draft SPDEIS, DOE neglected to consider the unique nature of the Pantex area. On clear high-pressure days, tall smokestacks are visible more than 15 miles away on the Southern High Plains. The Amarillo skyline is visible from Pantex--17 miles away.

In Section 4.26 of the Draft SPDEIS--"additional environmental resource analyses"--visual resources are discussed but not analyzed. For all "additional resources" DOE concluded (page 4-1) that there would be "minimal or no impacts at the candidate sites regardless of the disposition alternative being considered." The environmental consequences were derived by, "comparing facility characteristics and requirements from Chapter 2 and Appendix E with affected environmental information from Chapter 3." 1

The environmental information in Chapter 3 is inaccurate in terms of the Pantex visual resources assessment. Zone 4 at Pantex is not visible from U.S. Highway 60. The environmental information also does not present an accurate portrayal of the existing conditions in Zone 4.

As a result, for each candidate site DOE erroneously wrote (Section 4.26) that new facilities "would remain consistent with the industrialized character of the landscape and the current Visual Resource Management . designation." The impacts on visual resources are inaccurately presented as equal despite wide variation in topographical features, distance from proposed facilities to site boundary and private property, existing character of the proposed facility locations, and vegetation cover. 2

DOE did not conduct a consistent analysis for Pantex. Instead, it used very different criteria for assessing Pantex as compared to other sites, and then presented the impacts as equal.
The following issues should be addressed and DOE should admit that there are clear distinctions between the four sites.

1. Pantex was analyzed for existing overall site conditions, not specific areas where proposed facilities would be located. DOE wrote (Page 4-328) that, "in height and size, the proposed facilities would be similar to buildings in other industrialized areas of the site." This is an inaccurate statement, as there are no facilities with smokestacks at Pantex, no Category I nuclear facilities, and no manufacturing buildings in Zone 4. 3

In contrast, DOE wrote that, "in height and size, the proposed facilities would be similar to existing buildings" in the specific areas, such as 400 at Hanford, INTEC at INEEL, and F-Area at SRS. These specific areas are already characterized by heavy industrialization where smokestacks are the highest and most dominant visual feature.

2. DOE described the tallest structures at Pantex as water towers, whereas the tallest structures at Hanford, INEEL, and SRS were described as smokestacks generally over 200 feet high. These features correspond to the existing heavy industrial character of the proposed locations at other sites. By contrast, the Zone 12 industrial area at Pantex is barely visible from the north end of the Pantex plant, and even the Zone 4 bunkers are not readily noticeable. A 115 foot smokestack 4

FD334

FD334–2 **Land Use and Visual Resources**

To correct an inaccurate visual description of Zone 4, Section 3.4.10.2.2 was revised to state that the existing facilities in Zone 4 are not visible from the intersection of U.S. Route 60 and Texas FM 2373. Section 4.26.3.5.2 was revised to clarify that new structures and the stack associated with the proposed pit conversion facility would be visible from parts of U.S. Route 60.

FD334–3 **Land Use and Visual Resources**

Existing tall structures at Pantex include the 60-m (197-ft) meteorological tower located in the northeast portion of the site and the new water tower with a height of 44 m (145 ft) in Zone 11. Other tall structures are associated with the twin stacks of the steam plant with a height of 20 m (65 ft). There are currently no tall structures in Zone 4.

FD334–4 **Land Use and Visual Resources**

DOE acknowledges the commentor's conclusion that the descriptions of Hanford, INEEL, and SRS suggest existing heavy industrial character of those sites and the general lack of such features at Pantex, especially in regard to the addition of a 35 m (115 ft) smokestack, that would be readily visible and interrupt the current light industrial and agricultural landscape. As discussed in response FD334-1, Section 4.26.3.5.2 was revised to clarify that the proposed facilities would be the tallest and largest facilities in Zone 4.

STAND of Amarillo, Inc.
Don Moniak
Page 3 of 3

STAND Comment #9, Page 3 of 3

would be very noticeable and would interrupt what is essentially a mixed landscape of very light industrial (Zone 4 storage) and agricultural.

3. By neglecting to consider the differences in vegetative cover and topography for the four sites, DOE arrived at the amusing conclusion that while impacts at SRS would be minimal because facilities would be invisible, highly visible facilities at Pantex would have no impact on visual quality. 4

For the SRS analysis, DOE wrote that "facilities are generally not visible off the site because the views are limited by rolling terrain and heavy vegetation." At the other three sites, the views are not limited by vegetation, as they are all in open grassland or shrub-steppe environments. Distance and topography is a limiting factor at Hanford, as the 200 Area "cannot be seen from Columbia River or State Route 240." (Page 3-43, 3-44).

The contrast between these sites and Pantex is obvious. The distance from the proposed facilities to the private property boundary at Pantex would only be 1.1 miles and uninterrupted by topography or vegetative cover. DOE cannot legitimately claim that a 115 foot tall smokestack (such as that required for a PDCF) would not have a negative impact on the aesthetic values of the area and thus a negative impact on adjacent private property values 5

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

FD334

FD334–5 **Land Use and Visual Resources**

For the purpose of determining the radiation dose to the public and the onsite workers from normal operations, the stack associated with the proposed pit conversion facility was estimated to be 35 m (115 ft) high, in fact, the exact height of the stack would be determined during the design and permitting process and may be less than 35 m (115 ft). While a stack with a height of 35 m (115 ft) would be taller than existing facilities in Zone 4, it would not be the tallest structure at Pantex (as discussed in response FD334–3) or within the immediate viewshed of Pantex. There are many grain elevators in the area that are larger than the proposed stack in terms of width and depth and are as tall or taller in terms of height. Because the land around Pantex is largely agricultural, its value should not be impacted by the industrial nature of Pantex but by the perceived quality of the surrounding land in terms such as crop yield factors. As discussed in Section 3.4.10.1.1, because of the presence of the airport and other industry around Pantex, Amarillo's comprehensive land-use plan encourages compatible use rather than residential use for the area surrounding the plant so its impact on property values is limited.

STAND of Amarillo, Inc.

September 28, 1998

STAND COMMENT #10
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Plutonium Pit Composition and RCRA

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

On page 2-10 of the Draft SPDEIS, DOE defined "clean metal" as "pure plutonium metal generally with less than 100 parts per million of any given impurity...The only major chemical impurities are gallium and radioactive decay products such as americium, neptunium, or uranium. Examples of pure metal items include.. finished machined weapon components." However, according to the ARIES Fact Sheet (See STAND Comment #2), up to 22 impurities in addition to gallium, americium, neptunium, and uranium may be found in plutonium pits:

Element	Maximum Concentration
Aluminum	not provided
Beryllium	3 parts per million (ppm)
Boron	50 ppm
Carbon	200 ppm
Cadmium	10 ppm
Calcium	500 ppm
Chromium	100 ppm
Copper	100 ppm
Erbium	not provided
Iron	< 400 ppm
Magnesium	500 ppm
Manganese	100 ppm
Lead	100 ppm
Nickel	< 400 ppm
Tin	100 ppm
Tantalum	100 ppm
Thorium	100 ppm
Titanium	100 ppm
Tungsten	200 ppm
Vanadium	not provided
Zinc	100 ppm
Tritium	10 mCi/kg

1

Page 1 of 2

(806) 358-2822 7106 W. 34th Ave. Suite E Amarillo, TX 79109 FAX (806) 355-3837

FD335

FD335–1 **Pit Disassembly and Conversion**

None of the plutonium from the pits is considered impure metal. Any impurities that would prevent the plutonium dioxide from meeting MOX fuel specifications would be removed at the MOX facility. Section 2.4.1 was revised to acknowledge the presence of potential impurities in the pits to be dismantled.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 2 OF 2

STAND Comment #10, Page 2 of 2

According to DOE's own information, several impurities may exist at levels above 100 parts per million in plutonium pits. Is there some pit plutonium that can be classified as "impure" metal? Why are these other materials not considered major impurities? 2

To what level do these impurities have to be removed during plutonium pit conversion? What differences exist between impurities reduction for MOX versus immobilization?

Several of these impurities are classified as hazardous metals under RCRA (Resource Conservation and Recovery Act). Will waste contaminated with hazardous metals be subject to RCRA regulations?

If not, how is DOE planing to process impure plutonium that contains hazardous metals such as lead, beryllium, cadmium, and chromium without having the resulting wastes be part of a mixed TRU waste or MLLW stream? For example, on Page H-38 of the Draft SPDEIS, DOE wrote that "lean-lined gloves are likely to be managed as mixed TRU waste." Yet, DOE does not identify the hazardous metals within plutonium pits at any point in the Draft SPDEIS as being part of the processing waste stream. 3

This is notable because on Page H-39 DOE does cite one impurity--tritium--as being part of the LLW stream. Yet, DOE does not provide information on how other pit impurities are categorized within the waste streams.

In the final SPDEIS, DOE must discuss and analyze the pit impurities in the waste stream.

Sincerely

Don Moniak
Program Director
STAND of Amarillo, Inc.

FD335

FD335–2 **Pit Disassembly and Conversion**

Gallium and other impurities would not have to be removed if the plutonium dioxide from the pit conversion facility were going to be used in the immobilization facility. For MOX fuel fabrication, the degree of removal of impurities would depend on the MOX fuel specification. The pit conversion facility is no longer being analyzed as a possible location for the plutonium-polishing process. DOE has included plutonium polishing as a component of the MOX facility to ensure adequate gallium and impurity removal from the plutonium dioxide. Section 2.4.3 and the hybrid alternatives analyses in Chapter 4 of Volume I were revised to include a discussion of plutonium polishing.

FD335–3 **Waste Management**

Any waste determined to be hazardous waste would be managed as required by RCRA and other applicable laws and regulations. The waste quantities presented in Appendix H and the Waste Management sections of Chapter 4 of Volume I include estimates of hazardous and mixed waste generation. The contaminants cited in the comment are present in the pit plutonium at only very low levels, and, with the exception of tritium, should largely remain entrained in the plutonium.

Appendix H was revised to discuss the inclusion of the impurities in the LLW and TRU waste streams. The beryllium would be present in large pieces and cuttings created when the pit was bisected. These cuttings would be too large to become airborne. There would be no grinding; thus, there would not be any pieces of beryllium small enough to become airborne. Because the pieces and cuttings would be contaminated with trace levels of radioactive materials, they would primarily be disposed of as TRU waste and is included in the waste projections in this SPD EIS. Section 2.4.1.1 was revised to discuss beryllium and its presence in the pit conversion facility.

STAND of Amarillo, Inc.

September 28, 1998

STAND COMMENT #11
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: Scoping Comments

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Department of Energy, Office of Fissile Materials Management:

According to the National Environmental Policy Act (NEPA), the "scoping" process for Environmental Impact Statements are intended for "identifying the significant issues related to a proposed action" (40CFR1501.7) in order to "determine the scope and the significant issues to be analyzed in depth in the environmental impact statement" (40CFR1501.7.(a).(2)).

During the scoping process for the SPDEIS, DOE received numerous comments but was very selective when incorporating these comments. Two examples illustrate DOE's tendency to incorporate comments from business interests within DOE's sphere of economic influence while ignoring comments from most stakeholder groups: 1

- The inclusion of the Fast Flux Test Facility as a "contingency" for burning MOX fuel;
- The inclusion of Pantex as a plutonium processor under all possible alternatives.

In June 1997 and August 1997, STAND of Amarillo submitted comments on the scope of the SPDEIS. STAND is resubmitting the majority of these comments (*original comments in italics*) as part of the public record for the Final SPDEIS and is requesting that DOE address and incorporate these comments into the Final SPDEIS.

1. **During the scoping period, STAND wrote, in regard to the RAND report *The Waste Heat Implications of Alternative Methods for Disposing Surplus Weapons Plutonium: Direct Disposal vs. MOX Burning in LWR's:***

"This report is another indication of the serious flaws in past analyses concerning the MOX fuel option. This report must be fully considered and addressed within the EIS. DOE should identify all necessary changes to the Programmatic Environmental Impact Statement for the Storage and Disposition of Weapons-Usable Fissile Materials (S&D PEIS), or within the SPDEIS, that will be necessary as a result of this report." 2

DOE did not address these changes in the Draft SPDEIS. On pages 4-378 and 4-379, DOE reviewed its Generic Reactor analysis in the Final Storage and Disposition PEIS. The RAND report was not cited in this analysis. Because DOE did not provide a comparative analysis of the

(806) 358-2622 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 359-3837

FD336

FD336–1 **General SPD EIS and NEPA Process**

For this SPD EIS, scoping comments were invited from all interested individuals and organizations. Those comments that identified issues related to the proposed action and not already destined for inclusion in this EIS prompted appropriate changes to the document. Comments that had to be addressed in other venues, did not relate to the disposition of surplus plutonium, or represented statements of opinion were considered but did not affect the scope of this EIS. A discussion of those issues identified from written and oral comments received during the scoping period for this EIS is provided as Section 1.4. Individual responses to the commentor's resubmitted scoping comments are provided below.

FD336–2 **General SPD EIS and NEPA Process**

The RAND study cited by the commentor analyzed a repository design that is very different from the NWPA repository design being analyzed by DOE. Moreover, the information in the study does not directly pertain to the disposition of surplus plutonium, and thus, was not used in the preparation of this SPD EIS. DOE has prepared a separate EIS, *Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada* (DOE/EIS-0250D, July 1999), which analyzes the environmental impacts from construction, operation and monitoring, related transportation, and eventual closure of a potential geologic repository.

The SPD Final EIS was not issued until the proposed reactors had been identified and the public had an opportunity to comment on the reactor-specific information. As part of the procurement process, bidders were asked to provide environmental information to support their proposals. This information was analyzed in an Environmental Critique prepared for the DOE source selection board prior to award of the MOX fuel fabrication and irradiation services contract. DOE then prepared an Environmental Synopsis on the basis of the Environmental Critique, which was released to the public as Appendix P of the *Supplement to the SPD Draft EIS* in April 1999. This *Supplement* included a description of the affected environment around the three proposed reactor sites, and analyses of the

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 2 OF 30

STAND Comment #11, Page 2 of 19

MOX vs. Immobilization end-product, the Draft SPDEIS violates the NEPA requirement (40CFR1502.14.(b)) to "devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative results." 2

II. STAND wrote, in regard to DOE's *Program Acquisition Strategy For Obtaining Mixed Oxide Fuel Fabrication and Irradiation Services* (PAS):

A. "The PAS appears to be entirely incompatible with the SPDEIS, and raises issues that are not within the scope of the PEIS, or should be within the scope of this EIS and not an Acquisition Strategy."

During the SPDEIS process, DOE moved from the PAS procurement stage to development and release of a *Request for Proposals for MOX fuel Fabrication and Irradiation Services (MOX RFP).* Before DOE even decides to pursue the MOX option, it intends to award a contract to one of three consortiums that recently submitted bids. These three consortiums now have a vested financial interest to insure that the MOX option will be pursued. 3

This is a clear violation of the NEPA requirement (40CFR1506.1.(b)) that agencies, "will not prejudice the ultimate decision of the program" with interim actions, as "interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives." Proceeding with the MOX RFP has limited the full-immobilization alternative.

C. "The issues that DOE should address, as they pertain to the relationship of the SPDEIS and the PAS include:

What is the relationship of this PAS to the SPDEIS? DOE must clearly state how this PAS will impact the siting decision."

In reference to the MOX RFP, DOE stated in the Draft SPDEIS that, "environmental impact analysis relating to specific reactors will be included in the SPD Final EIS," although these analyses are scheduled to be made by MOX consortiums in their proposals. During the 1997 Scoping for the SPDEIS, DOE was repeatedly asked to involve nuclear reactor communities in the NEPA process. DOE ignored these scoping comments while moving forward on an exclusionary MOX procurement process designed to select MOX reactor sites. 4

DOE cannot justify soliciting public comment for the site selection process for plutonium processing facilities, while excluding public involvement in selecting plutonium irradiation facilities.

C. "Where will DOE analyze the environmental consequences and risks involved with the transportation and conversion of government furnished depleted uranium to uranium dioxide? The PAS identifies this action as a consortium responsibility, but provides no evident route for analyzing this action." 5

FD336

potential environmental impacts of operating these reactors using MOX fuel (Sections 3.7 and 4.28 of this SPD EIS, respectively). During the 45-day period for public comment on the *Supplement*, DOE held a public hearing in Washington, D.C., on June 15, 1999, and invited comments. Responses to those comments are provided in Volume III, Chapter 4.

Section 2.18 provides a summary of impacts of the construction and normal operation of the proposed surplus plutonium disposition facilities that will allow reviewers to compare the various alternatives. Section 4.30 also includes a comparison of the incremental impacts, per metric ton of plutonium dioxide, of reapportioning materials from the MOX facility to the immobilization facility, including such factors as changes in the amount of waste generated and the associated human health risks.

FD336–3 **MOX RFP**

DOE's NEPA implementing regulations in 10 CFR 1021 contain a specific provision, Section 216, which allows contracts to be let contingent on completion of the NEPA process, in this case the SPD EIS ROD. This section requires DOE to phase contract work in a way that will allow the NEPA review process to be completed in advance of a go/no-go decision. In the case of this SPD EIS, the go/no-go decision will be determined by which alternative is selected by the decisionmaker. In accordance with 10 CFR 1021.216, DOE prepared and provided an Environmental Critique to the source selection team. The Environmental Critique evaluated impacts of the offer in the competitive range and was considered in awarding the contract. DOE also prepared a publicly available Environmental Synopsis on the basis of the Environmental Critique, as discussed in response FD336–2. As stipulated in DOE's phased contract with DCS, until and depending on the decisions regarding facility siting and approach to surplus plutonium disposition are made and announced in the SPD EIS ROD, no substantive design work or construction can be started by DCS on the MOX facility. Should DOE decide to pursue the No Action Alternative or the immobilization-only approach, the contract with DCS would end. The contract is phased so that only nonsite-specific base contract studies and plans can be completed before the ROD is issued, and options that would allow

construction and other work would be exercised by DOE if, and only if, the decision is made to pursue the MOX approach.

FD336–4 **MOX RFP**

The Program Acquisition Strategy, referred to by the commentor, has no relationship to the site selection process being followed in this SPD EIS. The selected team has agreed to work at any site chosen by DOE.

The remainder of this comment is addressed in that portion of response FD336–2 regarding opportunities for public comment on reactor-specific information.

FD336–5 **Feedstock**

The transportation requirements and risks associated with converting depleted uranium hexafluoride to uranium dioxide were included in the SPD Draft EIS and are included in this SPD EIS as shown in Tables L–2 through L–4. Section 4.30.3 was revised to include a discussion of the potential environmental impacts of uranium conversion. Environmental impacts of the conversion of depleted uranium hexafluoride to depleted uranium dioxide are based on impacts discussed in DOE's *Final Programmatic Environmental Impact Statement for Alternative Strategies for Long-Term Management and Use of Depleted Uranium Hexafluoride* (DOE/EIS-0269, April 1999).

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 4 OF 30

STAND Comment #11, Page 3 of 19

In the Draft SPDEIS, DOE analyzed transportation of depleted uranium, but not conversion of uranium hexafluoride to uranium oxide. In the Final SPDEIS DOE must provide information on this latter requirement, as well as a comparative analysis for the uranium conversion requirements for MOX versus immobilization. 5

D. "When are the effects of producing gallium free plutonium dioxide for MOX fuel fabrication, as stated on page A-7 of the PAS? Where will this action be analyzed?"

In the Draft SPDEIS, DOE only addressed gallium free plutonium dioxide in terms of the "plutonium polishing contingency." In the Final SPDEIS, DOE must provide a comparative analysis of the effects of producing gallium free plutonium dioxide for MOX. 6

III. During scoping, STAND requested that ***"DOE incorporate the following viewpoints into the SPDEIS:***

A. "Both alternatives for disposition-- MOX fuel fabrication and irradiation, and immobilization--involve technologies which have never been conducted on an industrial scale with weapons grade plutonium. 7

Both immobilization and MOX pose significant risks to public and environmental health. Both alternatives involve processing tons of plutonium, one of the most dangerous elements known, as well as an array of other toxic materials."

DOE neglected to address the past impacts of plutonium processing, and instead presented a Draft SPDEIS that identifies a set of goals rather than expected impacts, and which serves more as a project justification than an environmental impact statement. 8

B. "Both operations would add to the accumulation of transuranic waste for which DOE has no approved permanent disposal facility. The ones that are proposed are problematic and the SPDEIS should consider and analyze contingency plans for alternative storage and disposal sites, including the option of on-site storage and disposal."

No contingency to either WIPP or Yucca Mountain was identified in the Draft SPDEIS. In the final SPDEIS, DOE must identify and analyze on-site storage contingencies for dealing with the full range of expected TRU and High-Level Waste to be created by its proposed action. 9

IV. During scoping, STAND wrote:

"The SPDEIS is tiered to the Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Impact Statement (S&D PEIS). The S&D PEIS is a legally and scientifically insufficient document for the following reasons: 10

FD336

FD336–6 **Plutonium Polishing and Aqueous Processing**

Appendix N of the SPD Draft EIS discusses the environmental impacts of adding a small plutonium-polishing process into either the pit conversion or MOX facility as a contingency. 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 (e.g., gallium) from the plutonium dioxide. Appendix N was deleted from the SPD Final EIS, and the impacts discussed therein were added to the impacts sections presented for the MOX facility in Chapter 4 of Volume I. Section 2.18.3 was also revised to include the impacts associated with plutonium polishing.

FD336–7 **Alternatives**

Although no domestic, commercial reactors are licensed to use plutonium-based fuel, several are designed to use MOX fuel, and others can easily accommodate a partial MOX core. The fabrication of MOX fuel and its use in commercial reactors have been accomplished in Western Europe. This experience would be used for disposition of the U.S. surplus plutonium. The environmental, safety, and health consequences of the MOX approach, as well as the production and disposal of any waste, are addressed in this SPD EIS. In addition, NRC would evaluate license applications and monitor the operations of both the MOX facility and the commercial reactors selected to use MOX fuel to ensure adequate margins of safety. While plutonium from warheads may never have been used in MOX fuel, its behavior in fuel is essentially the same as that of non-weapons-origin plutonium, and so does not present a situation different from MOX fuel experience to date. Although immobilization of weapons-usable surplus plutonium in a ceramic or glass form has not been demonstrated on an industrial scale, there exists a growing experience base and ongoing research and development activities related to the use of these technologies for immobilizing HLW. This experience is being adapted and applied to address the surplus plutonium disposition program.

FD336–8 **General SPD EIS and NEPA Process**

As noted in Section 1.1, this SPD EIS analyzes potential environmental consequences of alternative strategies for the disposition of a nominal 50 t (55 tons) of surplus weapons-grade plutonium. The overall goal as stated in Section 1.2 is to reduce the threat of nuclear weapons proliferation by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. Potential environmental impacts of the proposed actions are discussed at length in Chapter 4 of Volume I and summarized in Section 2.18. The past impacts of plutonium processing are not a result of the proposed action and are beyond the scope of this EIS.

FD336–9 **Repositories**

The management of TRU waste generated by the proposed surplus plutonium disposition facilities is evaluated in this SPD EIS.DOE alternatives for TRU waste management are evaluated in 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). WIPP began receiving shipments of TRU waste for permanent disposal on March 26, 1999. As described in Appendix F.8.1, and the Waste Management sections of Chapter 4 of Volume I, it is conservatively assumed that TRU waste would be stored at the candidate sites until 2016, at which time it would be shipped to WIPP in accordance with DOE's plans. Expected TRU waste generated by the proposed facilities is included in the *WIPP Disposal Phase Final Supplemental EIS* cumulative impacts estimates, as well as in *The National TRU Waste Management Plan* (DOE/NTF-96-1204, December 1997).

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 discussed in response FD336–2, DOE is preparing a separate EIS. The MOX spent fuel is included in the Yucca Mountain inventory and is being analyzed in that EIS.

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 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.

The WM PEIS includes an analysis of the impacts of the long-term storage of 21,600 canisters of vitrified HLW at Hanford and the storage of 4,912 canisters at SRS. The WM PEIS included as part of its cumulative impacts an estimate of HLW generated by the proposed surplus plutonium disposition facilities. As described in Section 2.4.4.2 of this SPD EIS, the surplus plutonium disposition program could result in the generation of up to 395 additional HLW canisters of immobilized plutonium at Hanford or SRS.

FD336–10 General SPD EIS and NEPA Process

DOE does not agree that the *Storage and Disposition PEIS* is a fundamentally flawed document. This SPD EIS references and is tiered from the *Storage and Disposition PEIS* in accordance with applicable provisions of 40 CFR 1502.20.

DOE determined that aqueous processing was not a reasonable alternative for pit conversion under the terms of NEPA because current aqueous processes using existing facilities would produce significant amounts of waste, and aqueous processing would complicate international safeguard regimes. Dry processing was analyzed in the *Storage and Disposition PEIS* and this SPD EIS.

DOE is not including the plutonium-polishing process (a small-scale aqueous process) as part of the pit conversion facility; that process would be part of the MOX facility. DOE would use only dry processes in the pit conversion facility. Section 2.4.3 was revised to include a description of the plutonium-polishing process that would be used in the MOX facility. For this reason, the thermal process for removing gallium may not be needed in the pit

conversion facility (see revised Section 2.4.1.2). Plutonium dioxide is the starting form for the disposition of surplus plutonium for either the immobilization or MOX approach. This EIS analyzes the environmental impacts of converting surplus pits into plutonium dioxide that can be used in either the immobilization or MOX facility. No additional aqueous processing would be necessary to prepare the plutonium dioxide for immobilization.

Section 3.1 defines the ROI 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, livestock, and fish, and consumption of these products by persons living within an 80-km (50-mi) radius of the 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 operating the pit conversion, immobilization, and MOX facilities on agricultural products, livestock, and human health at any of the sites would likely be minor. Section 4.26 and Appendix J were revised to discuss potential impacts of radioactive emissions on agriculture and the Columbia River.

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.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 8 OF 30

STAND Comment #11, Page 4 of 19

- *A lack of reasonable alternatives for plutonium pit disassembly/conversion activities;*
- *A lack of a credible cumulative impacts assessment due to the lack of analyses on reasonable, though undesirable, aqueous processes for pit conversion and MOX fuel fabrication;*
- *Failure to incorporate known information prior into the process, such as gallium reduction;*
- *Failure to analyze and report the impacts from proposed activities on the regional economic activities such as Texas Panhandle agriculture and Columbia River fisheries;* 10
- *Failure to report the full cost of the MOX option."*

In the Draft SPDEIS, DOE failed to address these Storage and Disposition PEIS limitations. How can DOE tier the SPDEIS to a fundamentally flawed document?

V. STAND wrote in its scoping comments, in regard to general NEPA requirements:

"The Department of Energy is obligated under NEPA to, "use all practical means, consistent with other essential considerations of national policy" to protect the environment for future generations, assure for all Americans safe, healthful, productive surroundings, preserve our natural heritage, and enhance the quality of renewable resources.

To do this, NEPA requires that DOE identify and analyze "presently unquantified environmental amenities and values" to provide "appropriate consideration in decision making along with economic and technical considerations." The amenities and values that should be identified and analyzed in this EIS, and for which there was an inadequate analysis in the S&D PEIS, include clean water, soil, and air and the productive farmlands and fisheries a high quality environment supports. 11

DOE should view its mandate, under NEPA, to assess the relationship between the proposed activities and "the maintenance and long term enhancement of long term productivity in terms of existing economic activities such as agriculture and fisheries. In the PEIS, many commenters wrote that the analysis on the Texas Panhandle Agricultural economy was deeply flawed. STAND agrees with this assessment and requests DOE to analyze impacts of proposed activities on all effected natural resource related economies.

NEPA also requires DOE to assess the environmental impact and adverse environmental effects of its proposed activities on identified amenities and values. In the PEIS, DOE took the approach of analyzing the impacts of proposed activities during normal operations while only assessing the probability of accidents occurring. This strategy is insufficient. STAND is

FD336

FD336–11 **Facility Accidents**

The potential agriculture impacts of the proposed surplus plutonium disposition facilities are described in the Geology and Soils portions of Section 4.26. In the Water Resources portions of Section 4.26, the impacts on surface water (including fisheries) and groundwater have also been described. All activities would be limited to each of the candidate sites, and any impacts to the surrounding areas would be within Federal, State, and local regulatory limits.

As shown in the Facility Accidents sections of Chapter 4 of Volume I and in Appendix K, DOE addresses the environmental and human health consequences of the full range of accidents scenarios for all the alternatives. Similarly, the Transportation sections of Chapter 4, and Appendix L discuss the consequences of transportation accidents.

Because of the very low probability of accidents of the magnitude needed to impact natural-resource-related economies, the consequences would be difficult to calculate with any reasonable degree of accuracy. In the unlikely event of an accident, crops may be contaminated which could affect an agricultural based economy. DOE would thoroughly investigate potentially affected areas and determine the need for interdiction or other specific actions.

The remainder of the comment is addressed in response FD336–10.

STAND Comment #11, Page 5 of 19

requesting that DOE conduct an analysis of the environmental and human health consequences of the full range of accident scenarios. Only by doing this can people make informed choices and decisions."

11

In the Draft SPDEIS, DOE did not address these issues. In the Final SPDEIS, DOE must address probable impacts on natural resource economies.

VI. During the scoping period, STAND wrote, in regard to expected contamination:

"Plutonium processing facilities will result in environmental contamination. The issue is not whether this contamination will be above or below regulatory limits, because regulatory limits can change over time. The unaddressed question to-date is what amounts of contamination and waste will be generated for all reasonable alternatives. Until now, DOE has provided only a rough sketch of the outputs of its proposed plutonium operations. In addition, DOE has raised concerns for Russian MOX operations that it has not reported or not analyzed here.

For example, the Joint United States/Russia Plutonium Disposition Study released in September, 1996, included the following Russian Environmental, Safety, and Health issues:

12

'The following issues should be included in the program of follow-up studies of MOX fuel production and use:

1. Analysis of data on possible concentrations of plutonium and americium in aerosol discharges in the production of MOX fuels, including aerosol dispersion under regular operating conditions and in potential accidents.'

Where is this analysis for U.S. MOX production? DOE is obligated to assess impacts in this country which it has helped to identify in Russia."

DOE should address the americium and plutonium aerosol issues in the final SPDEIS. DOE should also identify the expected level of contamination resulting from the proposed action.

VII. During the scoping period, STAND wrote, in regard to air emissions, wastewater discharges, and waste streams:

A. "To assess environmental impacts, DOE should provide a clear and comprehensive accounting of the various waste streams and contamination generated by all proposed disposition activities by addressing the following issues and questions:

13

1. Standards and guidelines for pollution levels must be quantified clearly and up-front. DOE should explain what existing regulations exist and how they might vary from state to state. Furthermore, the S&D PEIS analyses of contaminant levels are filled with vague

FD336

FD336–12 **Human Health Risk**

Chapter 4 of Volume I presents the results of the radiological health impacts associated with operational emissions of radionuclides, including plutonium and americium, for each alternative. Radiological release quantities expected from each of the proposed surplus plutonium disposition facilities, including the MOX facility, are presented in Appendix J for normal releases and Appendix K for postulated accidents. All applicable contaminant streams are addressed in the radiological impact analyses.

The accident analysis in this SPD EIS is considered to be bounding and includes the effects of aerosol dispersion under a representative spectrum of possible operational accidents. Inhalation is the most significant dose pathway. Other pathways (ingestion) are controllable through interdiction. 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.

The amounts and composition of waste generated for each alternative are quantified in the Waste Management sections in Chapter 4 of Volume I and Appendix H. Generation rates of TRU, low-level, mixed low-level, hazardous, and nonhazardous waste are also provided.

FD336–13 **General SPD EIS and NEPA Process**

DOE assessed the environmental impacts of air emissions, wastewater discharges, and waste streams for this SPD EIS is accordance with well-recognized and accepted procedures. The waste streams generated by the implementation of each alternative are described in the Waste Management sections in Chapter 4 of Volume I and Appendix H. Detailed information is provided in the form of tables and charts, and to the extent possible—the proposed action being of a highly technical nature—the text is presented in "common English." Chapter 5 includes a description of existing regulations and a list of State regulations for the candidate sites. Furthermore, the document is organized in accordance with 40 CFR 1502.10, and reader aids such as a glossary, a list of acronyms, and conversion charts are provided. Also available to the public are those data reports used as source material for the calculation of potential environmental impacts.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 10 OF 30

STAND Comment #11, Page 6 of 19

descriptions like "minimum," "not expected," "unlikely," and "background levels," and are presented in a format which is reader unfriendly." 13

The Draft SPDEIS is a cumbersome document that violates every numerous NEPA requirements to present information in a clear and concise manner.

B. "The public has a right to know what is expected at these facilities. To provide an adequate analysis that addresses public concerns, DOE must:

- *Be sure that subjective terminology is supported with quantifiable information, and the limitations of DOE's data should be identified."* 14

DOE did not describe the limitations of its data in the Draft SPDEIS and should do so in the Final SPDEIS.

- *"Fully identify all expected contaminant and waste streams in the main document, and not just solely in source materials or referenced documents. The primary document should provide the fundamental information necessary for people to make decisions.*
- *Identify the expected levels of contaminant deposition and emissions."*

In the Draft SPDEIS, DOE failed to identify all expected contaminant streams in any document because it excluded beryllium emissions as an impact. In addition, DOE used its source documents to send people on a paper chase for pertinent information. For example, on page J-4 DOE wrote that, "source term data for radiological releases, stack heights, and release locations are provided in the data reports for the pit conversion, immobilization, and MOX facilities." In other words, the Draft SPDEIS does not provide any data on something as basic as expected quantities of radioactive air pollutants. In the final SPDEIS, DOE must provide important information in the main document, and it must do so in a reader-friendly format as required by NEPA. 15

- *"Identify known health effects of exposures to contaminants and the levels at which these health effects are known to occur."*

DOE did not address this issue in the Draft SPDEIS. Instead, DOE compared emissions data to regulatory requirements. In the final SPDEIS, DOE must discuss the potential health effects of the pollutants that will result from its proposed action. 16

C. "The waste streams quantified within the S&D PEIS did not sufficiently define the waste composition or disposal options. The SPDEIS provides an opportunity to answer questions such as: 17

What is the alternative to waste disposal at permanent repositories? If WIPP opens, Is there

FD336

In order to produce a document that is understandable and of a manageable size, DOE chose to place some technical information in supporting reports. DOE believes that this SPD EIS reflects an appropriate balance between detailed technical information desired by some reviewers and information that is understandable by the general public. Supporting reports are available in the public reading rooms near the sites, as described in the NOA for the SPD Draft EIS. A copy of the NOA is provided in Appendix A.

FD336–14 **General SPD EIS and NEPA Process**

All the alternatives have been evaluated using uniform methods and data allowing for a fair comparison. Limitations of the data on air emissions, wastewater discharges, and waste streams are discussed in Appendix F, and the results of the impacts analyses for these areas are discussed in Appendixes G and H, respectively. The accident analyses are based on calculations relevant to hypothetical sequences of events and models of their effects. The models provide estimates of the frequencies, source terms, pathways for dispersion, exposures, and effects on human health and the environment that are as realistic as possible within the scope of the analysis. In many cases, a paucity of experience with the accidents postulated led to uncertainty in the calculation of their consequences and frequencies. This prompted the use of models for input values that yield conservative estimates of consequence and frequency, so that the projected risks are more likely to be overestimated than underestimated.

FD336–15 **Human Health Risk**

Section 2.4.1.1 was revised to discuss solid beryllium and its presence in the pit conversion facility, and Appendix H was revised to include a discussion of solid beryllium in the pit disassembly and conversion waste streams. Appendix J was revised to include source term data on airborne and liquid releases of radioactive isotopes. Appendix G was revised to include stack data. No airborne emissions of beryllium are expected from anticipated facility operations.

FD336–16 **Human Health Risk**

The discussion of hazardous chemical impacts in Appendix F.10.2.1 was revised to include more information on the types of health effects that could result from exposures to hazardous chemicals and to provide more details on the methodology used to calculate these effects, both carcinogenic and noncarcinogenic. Appendix F.1.2.1 was also revised to include a discussion on how the most stringent standard or guideline relates to human health. The expanded discussions clarify the meaning and significance of the potential impacts associated with exposure to airborne releases, including hazardous air pollutants and criteria air pollutants, that are presented in the Human Health Risk and Air Quality and Noise sections in Chapter 4 of Volume I.

FD336–17 **Waste Management**

As discussed in response FD336–9, WIPP is open and can accommodate the amount of TRU waste expected from the proposed surplus plutonium disposition facilities. Further, the response discusses Yucca Mountain and its ability to accept MOX spent fuel. Response FD336–2 discusses the RAND report.

As described in Appendix H, operation of the pit conversion, immobilization, and MOX facilities would be expected to generate LLW that includes used equipment, wipes, protective clothing, and solidified inorganic solutions. LLW would be contaminated with TRU isotopes (primarily plutonium) at concentrations lower than 100 nCi and would generally not contain appreciable contamination by other isotopes. An exception is that operation of the pit conversion facility would generate LLW that includes tritium. As described in Appendix F.8, by definition TRU waste contains more than 100 nCi of alpha-emitting transuranic isotopes, with half-lives greater than 20 years, per gram of waste. Transuranic isotopes include isotopes of plutonium. Mixed TRU waste is TRU waste that contains hazardous components regulated under RCRA. LLW can contain transuranic isotopes in concentrations of no more than 100 nCi of waste. Mixed LLW is LLW that contains hazardous components regulated under RCRA. As described in the introduction to Appendix H, only a very small portion of the TRU waste would leave the

proposed surplus plutonium disposition facilities as a liquid. Most of the TRU waste generated by the proposed facilities would be solid wastes (wipes, used containers and packaging materials, and lead- lined rubber gloves), with surfaces contaminated by plutonium dioxide. All TRU waste would be appropriately placed in containers before leaving the proposed facilities. Therefore, it is unlikely that TRU waste would be released to the environment.

Plutonium is extremely immobile in the environment. Plutonium in soils is associated with organics, sesquioxides (soil coatings), clay particles, carbonates, and silicates. Studies have shown that most plutonium deposited on the ground remains in the upper soil horizons. Therefore, contamination of underground sources of water by deposition of plutonium on the soil is unlikely. The potential for plutonium contamination of the Ogallala aquifer was examined in the *Environmental Assessment for Interim Storage of Plutonium at Pantex* (DOE/EA-0812, January 1994). That document shows that no accident or routine operating condition that could result in a plutonium release could be identified with a probability greater than 1.0×10^{-6}/yr of having an impact on the aquifer. Actual mobility depends on the form of the plutonium released (including chemical compound and valence state) and the conditions of the environment into which the plutonium is released (e.g., eH and pH, and the presence of materials to which the plutonium may attach).

DOE is establishing an internet database pursuant to the terms of a lawsuit settlement (*Natural Resources Defense Council et al. v. Bill Richardson, Secretary of Energy, et al.*, Civ. No. 97-936(ss)). The database will include information on waste at each site by program office; specific information on volume and mass of radioactive materials, chemical constituents, radioactivity of materials, and disposition plans will be provided. DOE expects that this database will be operational in January 2000 and will be maintained for 5 years.

Most facility accidents would not involve the release of significant quantities of materials from the facility, and therefore, would not produce contamination outside the building. Likewise, most transportation accidents would not result in releases of radioactive materials to the environment. Due

to the immense variability of the accident scenarios, and the difficulty in estimating the amount of material that would be contaminated with radioactive and hazardous constituents, waste streams could not be reasonably estimated for the accident scenarios. If an accidental release occurred, the source of the release would be promptly contained and any significant contamination remediated. Incident response and contaminant remediation would be performed in accordance with all applicable regulations, as well as spill prevention and emergency response plans.

DOE does not decide which wastes are nonhazardous and which are hazardous. The allowable amounts of contaminants that may be present in nonhazardous waste are determined by Federal and State regulations. For example, as described in the regulations implementing RCRA, wastes are determined to be hazardous if they exhibit the characteristics of ignitability, corrosivity, reactivity or toxicity as defined in the regulations, or are otherwise determined to pose a hazard.

Although it is inevitable that regulations may change over time, issues such as how the regulatory environment will evolve are speculative and therefore are beyond the scope of this SPD EIS. If regulatory requirements relevant to the surplus plutonium disposition program change, however, DOE, will comply with those new requirements.

Earlier consideration regarding a possible HLW repository in Deaf Smith County, Texas, is unrelated to the proposed action. In December 1987, the NWPA was amended by the U.S. Congress to direct DOE to suspend characterization work at all sites except the Yucca Mountain Site in Nevada.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 14 OF 30

STAND Comment #11, Page 7 of 19

sufficient space there for the new quantities of TRU waste? If not, what will be the interim and permanent fate of new TRU wastes?

Likewise, will Yucca Mountain, if it opens, have sufficient space for MOX spent fuel assemblies? Is Yucca Mountain a suitable site considering the findings in the RAND report?

What will the composition of low level waste be for each facility, based on existing experience?

What will be the concentration of transuranic elements in low level, TRU waste, and mixed low level and TRU wastes?

Of the chemicals in the mixed TRU wastes, what will be the effect of these chemicals in terms of the mobility of transuranics in the soil? What will be the chemical composition of mixed TRU waste and how will this effect Pu transport if it contaminates soil and water? 17

What will the projected waste stream be for various accident scenarios?

For nonhazardous wastes, what are the allowable tolerance for contaminants?

Will regulations change over time, much as they are being proposed for Yucca Mtn., and just as DOE changed the definition of TRU waste in 1984?

What is the possibility, especially if plutonium processing facilities are located at Pantex, of DOE revisiting the proposal for a high level (or other nuclear waste) waste repository in Deaf Smith County, Texas?"

DOE should address these unanswered questions in the final SPDEIS.

VIII. During the scoping period, STAND wrote, in regard to accident scenarios:

A. "In the S&D PEIS, DOE analyzed a limited set of accident scenarios, reported them in a reader unfriendly format, and only reported cancer risks. Although the environmental and human health risks were different at each site, DOE failed to summarize the comparative risks across sites. For the SPDEIS to be credible, DOE must make great improvements to its assessments of accident scenarios. Even European MOX fuel fabricators assess a greater spectrum of accident scenarios and health risks than DOE has to date. These include breach and/or crash of a glove box, onsite floods, and estimated dose to public for various accident scenarios. 18

DOE should have sufficient data based on past accidents at Rocky Flats, Hanford, Savannah River Site, Pantex, and INEEL to estimate the expected range of contamination possible under various accident scenarios. DOE should then estimate the comparative doses and the possible health and environmental consequences for each site, and compare the sites in a

FD336

FD336–18 **Facility Accidents**

This SPD EIS presents accident results in terms of point estimates for consequence and qualitative frequency ranges for frequency consistent with the guidance in *Recommendations for the Preparations of Environmental Assessments and Environmental Impact Statement* (DOE Office of NEPA Oversight, May 1993). In general, the postulated beyond-design-basis accidents are significantly more severe than any accident that has occurred within the experience base of DOE.

This EIS provides several levels of detail in order to be useful to a variety of interested parties. Section 2.18 summarizes the limiting design basis accident for each candidate site by alternative. In addition, each alternative analyzed in Chapter 4 of Volume I provides a discussion of the limiting beyond-design basis accident. More detailed accident result information is provided in Chapter 4. Although the format of the accident tables is the same among alternatives, there is no explicit redundancy in the information contained in the tables. Appendix K presents a greater depth of detail, including additional accident result tables for average meteorology (as opposed to conservative meteorology, which was used for the formal results in Chapter 4).

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 15 OF 30

STAND Comment #11, Page 8 of 19

clear and concise format. DOE cannot simply present a series of cumbersome tables filled with exponential notation and leave the comparative risk analyses to the public."

In the Draft SPDEIS, DOE provided dozens of redundant tables filled with exponential notation and left the comparative risk analyses to the public. The final SPDEIS could be greatly reduced in size by removing redundant analyses and providing comparative analyses in an up-front and reader friendly format. 18

B. *"DOE should also expand or adjust its analyses to include:*

Incorporating an analysis of human error using past DOE records relevant to the proposed operations. DOE should provide a list of past accidents, their effects and consequences, and the stated probability at the time of the accident. For example, the recent plutonium inhalation at Los Alamos by a LANL researcher occurred due to procedural violations. What was the risk of this researcher inhaling plutonium under the existing risk analysis? What was the probability of procedures being violated, based upon past experience?" 19

DOE not address the anticipated accidents at each facility and the resulting cumulative impacts of long-lived radioactive contamination. DOE only identified "bounding" impacts and therefore understated the daily operational impacts. DOE should address these issues in the final SPDEIS.

C. *"Identifying the economic enterprises at risk from an accident, including agriculture, fisheries, and food processing facilities."* 20

DOE must identify what economic enterprises are at risk in the final SPDEIS.

D. *"Not assuming a logical chain of events during accident modeling. DOE should model accident scenarios without unrealistic assumptions such as fire water and truck hose down water being collected, monitored, sampled, and treated as process wastewater; or hundreds of square miles of land being decontaminated to background levels. What are the chances, based on DOE's real life emergency response data of accident response and mitigation measures failing?"* 21

In the Draft SPDEIS, DOE continued to assume accident responses would be orderly and logical. DOE should compare the accident response procedure at the Hanford Plutonium Finishing Plant to the accident response reality during the 1997 explosion. In the final SPDEIS, DOE should address the impacts of inadequate accident responses to anticipated and probable accidents.

FD336

FD336–19 **Facility Accidents**

Potential accidents with a range of frequencies and consequences were addressed in this SPD EIS in accordance with DOE's NEPA guidance. Many of the accidents in Appendix K reflect potential human error and procedural violations. The accident history sections in Chapter 3 of Volume I summarize the existing data on incidents at the candidate sites.

In response to the commentor's concern, a search of the DOE occurrence reporting database for 1997 and 1998 was performed, which yielded 13 occurrences at LANL categorized under the heading "radiological issues." Of these 13 occurrences, three resulted in dose estimates ranging from 0.007 to 1.2 rem CEDE, the remainder were below measurable levels based on nasal smears. This two-year history is more recent than the five-year history summarized in Table 3–62, which documents radiation doses to onsite workers at LANL for the calendar years 1991–1995. The two-year data summarized above falls within the dose range of Table 3–62, substantiating its validity in characterizing anticipated exposures in general.

The impacts from daily surplus plutonium disposition operations are considered in the Human Health Risk sections in Chapter 4 of Volume I. Because nonradiological consequences dominate accident risks for high frequency accidents, worker accident risk from nonradiological sources was estimated using existing DOE injury and fatality rates and summarized for each alternative in the Facility Accidents sections of Chapter 4. It is not reasonable to postulate the chronic occurrence of accidents exceeding permissible release limits that might result in significant cumulative impacts from long-lived radioactive contamination. This is because regulatory action by DOE, EPA, and/or NRC would be taken in response to any such accident.

FD336–20 **Socioeconomics**

This comment is addressed in response FD336–11.

FD336–21 **Facility Accidents**

As discussed in Appendix K.1.4.1, consequences were developed using conservative assumptions and methods without regard for or without taking credit for adequate emergency response.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 16 OF 30

STAND Comment #11, Page 9 of 19

IX. During the scoping period, STAND wrote, in regard to the value of clean water:

"DOE's analyses in the S&D PEIS tended to distort the cumulative effects of its proposals by using inadequate comparative baselines. For example, comparing groundwater use to existing unsustainable levels of use is misleading. If water usage is already at unsustainable levels, or if water contamination is already exists, these facts must be stated up-front. The questions is not how much usage or contamination will increase during DOE activities, but whether additional use, or contamination, is desirable.

Every site under consideration for new plutonium operations is located on or near critical water sources which support fisheries and/or agriculture, and provide critical drinking water sources. All of these water sources have been degraded or placed at serious risk by past and present DOE activities as well as commercial industrial activities. DOE should identify the existing state of the water resources it is proposing to impact."

In the Draft SPDEIS, DOE glossed over existing conditions of water resources.

B. "The issues and questions that must be addressed by DOE in the SPDEIS include:

What is the distance to groundwater, surface water, aquifers, and drinking water sources for the proposed facilities? 22

What is the cost of contaminating a safe drinking water supply, irrigation supplies, or a fishery?

One consistent theme in the S&D PEIS is that plant blowdown, firefighting water, steam condensate and other sources of wastewater will "be monitored for radioactivity, and if uncontaminated, discharged" to local sources. DOE must address the extent to which contaminated water can escape detection, the possibility of monitoring systems breaking down during emergency situations, and the consequences of such an event.

In the S&D PEIS, "drawdown representing 2.9% of the available groundwater is reported for a MOX fuel plant's impacts on the Ogallala aquifer. Who is this groundwater available to? Does this assertion incorporate the possibility of Amarillo well fields drawing down faster? Is this acceptable in light of the fact that Amarillo well field is already so depleted?

In the S&D PEIS, a proposal to use Amarillo wastewater was reported What is the state of this proposal? Where is the documentation for this proposal?

DOE should address these questions in the Final SPDEIS.

FD336

FD336–22 **Water Resources**

DOE acknowledges the commentor's concerns regarding the potential for impacts to water resources at Pantex Section 3.4.7.2 describes potential and past DOE water use, use by the city of Amarillo, and irrigation use in Carson County. Operation of the pit conversion and MOX facilities is estimated to increase water use by 116 million l/yr (30.6 million gal/yr). This water use would still be a small portion of the water used by the city of Amarillo (0.5 percent) and that used by irrigation in Carson County, and would be less than the water used by Pantex in 1991. Although additional water use at Pantex may produce some localized drawdown of the aquifer near Pantex supply wells, this water use would not impact the overall conditions in the Ogallala aquifer. DOE is not proposing to use water from the Hollywood Road Wastewater Treatment Plant at this time; however, this measure is a viable option and could be used to mitigate impacts of additional water usage in the future.

Analyses presented in Section 4.26.3.2 indicate that there would be no discernible impacts to surface water or groundwater quality at Pantex from normal operation of the proposed surplus plutonium disposition facilities. 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. It is not possible to estimate the cost of cleanup associated with contamination of drinking water supplies, irrigation supplies, or fisheries.

STAND Comment #11, Page 10 of 19

X. During the scoping period, STAND wrote, concerning the value of clean air:

"The same issues that apply to water also apply to air quality. DOE should not assume that impacts to air quality are occurring to undisturbed airsheds. DOE should identify the existing state of the water resources it is proposing to impact.

Additional issues and questions that must be addressed by DOE in this EIS include:

Wording found in the PEIS such as activities will "not typically" exceed regulations or guidelines is unacceptable. DOE should qualify vague language with clear quantitative estimates. For example, on Page 4-680 of the PEIS, DOE wrote, "VOC emissions of 1,000 kg/yr ...would give trace contamination at the site boundaries." Statements like these are unacceptable and should be qualified with questions such as: What is a trace of contamination? 23

What are the volatile organic compounds and other toxins that are expected to be produced at various facilities? What are the existing regulatory levels for each contaminant that would be produced, and what are the known health effects of overexposure?"

DOE should address these questions in the final SPDEIS.

XI. During the scoping period STAND wrote, in regard to a MOX fuel fabrication facility:

"STAND is requesting that DOE completely re-analyze the impacts of building and operating a MOX Fuel Fabrication facility in the SPDEIS.

The reason for this is simple. In December, 1996, the Department of Energy published the Feasibility Assessment of Candidate DOE Sites and Buildings for a Mixed Oxide (MOX) Fuel Fabrication Facility for Disposal of Excess Weapons-Usable Plutonium. There are serious discrepancies between the findings and recommendations in this document and what was reported in the S&D PEIS.

For example, DOE has admitted that the purpose of the assessment was to "review the suitability of sites and existing buildings being considered to host the fabrication facility." Oak Ridge and the Nevada Test Site were not reviewed in the assessment because "the DOE has chosen not to introduce the MOX fabrication facility to a site without recent capability to handle or process Category I quantities of plutonium." In the S&D PEIS, NTS and ORR were eliminated because "DOE would not add Pu to sites that do not currently have Pu in storage." So on the one hand, handling and processing were the criteria, and on the other storage was the criteria. Yet, Rocky Flats, where Pu is stored, was not considered for disposition because it is undergoing closure. Why did the DOE report different screening criteria in these two documents? How did this effect the decision to settle on the four final candidate sites? 24

FD336

FD336–23 **Air Quality and Noise**

The text referred to by the commentor was from the *Storage and Disposition PEIS*. This SPD EIS has attempted to clarify the air quality concerns associated with operating the proposed surplus plutonium disposition facilities. The air quality impacts associated with construction and operation emissions of air pollutants have been quantified for each alternative in Chapter 4 of Volume I (e.g., see Table 4–52). As shown in these tables, the amount of air pollution associated with the operations of the proposed facilities is generally small when compared to the existing site concentrations, and applicable standards or guidelines. A detailed discussion of how these impacts were calculated is included in Appendix G for each of the proposed surplus plutonium facilities at the candidate sites. Air pollutant emission rates are given for each proposed facility in kilograms per year, and rates are compared with the appropriate air quality standards and guidelines.

FD336–24 **MOX Approach**

DOE understands there could be confusion regarding various documents that address related topics. In the *Storage and Disposition PEIS*, the proposed action for plutonium disposition was to select a disposition strategy. Therefore, the decisions made were of a programmatic nature, taking into consideration the major programmatic activities at various candidate sites. Once the decision was made in the *Storage and Disposition PEIS* ROD to proceed with the hybrid and immobilization-only approaches to surplus plutonium disposition and focus on the selected candidate sites, the next step was to determine the specific DOE site(s) for constructing and operating the proposed facilities and the disposition approach and technologies. Because the decisions for this SPD EIS are site and facility specific, the decision criteria are based on the candidate site's ability to handle up to 50 t (55 tons) of surplus plutonium using the selected disposition approaches, as well as its ability to house the needed facilities.

As discussed in the *Pit Disassembly and Conversion Demonstration EA* (DOE/EA-1207, August 1998), several national laboratories, including ANL-W, LLNL, LANL, and ORNL, have ongoing R&D projects related to the surplus plutonium disposition program that involve the use of small

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 18 OF 30

STAND Comment #11, Page 11 of 19

In the Draft SPDEIS, DOE did not address the changes that had occurred since issuance of the S&D PEIS. Since the ROD for the PEIS was issued, DOE has proceeded with MOX research and development that is centered at Oak Ridge and Los Alamos. Oak Ridge is handling and processing small amounts of plutonium in the R&D program. This contradicts the criteria for removing Oak Ridge as a plutonium processing candidate.

At Los Alamos, DOE is proceeding to upgrade plutonium storage facilities, yet these upgrades are never addressed in the Draft SPDEIS. Los Alamos personnel also stated, at the MOX Industry Conference in Atlanta, that the LANL MOX program has been approved by lab officials for an indefinite period. What capabilities are being developed at LANL that DOE did not report in the Draft SPDEIS? 24

Serious discrepancies between programmatic realities and the Draft SPDEIS and related documents continue to undermine the integrity of DOE's NEPA process. These discrepancies should be addressed in the Final SPDEIS.

B. *"In part two of the assessment, three unique attributes to Weapons grade plutonium were identified that were not reported or analyzed in the S&D PEIS:*

1. The different isotopic ratio—lower ratio of Pu-240—in weapons grade plutonium compared to weapons usable, reactor grade plutonium creates more stringent criticality limits with subsequent negative impacts on the economics and risks of the MOX option. In DOE's reevaluation of the MOX option, it must answer the following questions, as they pertain to the Plutonium isotopic ratio issue: 25

a. What additional costs are incurred during MOX fuel fabrication that have not been reported?

b. What additional criticality risks are incurred during MOX fuel fabrication that have not been reported?

c. What additional consequences are possible in the event of a plutonium release?

2. Gallium concentrations will have to be below 100 parts per million for the plutonium oxide feed. DOE has not explained in a decision document why gallium reduction must occur and the processes required to reduce it. The questions DOE must answer as they pertain to gallium (and other impurities) are: 26

a. What additional costs are incurred to prepare plutonium oxide for the MOX fuel feed that is not found in the immobilization option and which has not been reported?

b. What additional risks to workers and the environment are created with gallium reduction processes?

FD336

quantities of plutonium. ANL–W, LANL, LLNL, as well as Hanford and SRS, are candidates for lead assembly activities in the SPD EIS because they have existing capabilities and facilities that could support these activities. ANL–W and ORNL are candidates for postirradiation examination in the SPD EIS because they have existing capabilities and facilities that could support these activities.

The LANL storage facilities mentioned by the commentor are covered under the *Site-Wide Environmental Impact Statement on the Continued Operation of the Los Alamos National Laboratory* (DOE/EIS-0238, January 1999) and are not part of the surplus plutonium disposition program. All of the MOX fuel activities being pursued at LANL were discussed in the *Pit Disassembly and Conversion Demonstration EA*. The interrelationships of the referenced documents are described in Section 1.8 of this SPD EIS.

FD336–25 **MOX Approach**

Reactor-grade and weapons-grade plutonium are chemically indistinguishable. The difference is isotopic: there is less plutonium 239 (and therefore more plutonium 240) in reactor-grade plutonium than in plutonium that was produced for use in weapons. However, since plutonium 240 is not fissile, it is the amount of plutonium 239 that dominates criticality concerns. This SPD EIS analyzes the potential impacts of the proposed actions. Therefore, analyses of criticality risks during MOX fuel fabrication, as well as all other SPD EIS analyses, reflect the isotopic content, plutonium concentrations, physical attributes, and other parameters specific to the materials, facilities, and sites under consideration. The reactor-specific analyses in the revised Section 4.28 for both routine operation and postulated accidents use source terms that reflect the proposed MOX fuel component of the reactor cores.

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. Response FD336–10 discusses the separate cost reports associated with this EIS.

FD336–26 Plutonium Polishing and Aqueous Processing

The degree of removal of impurities would depend on the MOX fuel specification. Gallium and tramp impurities would not have to be removed if the plutonium dioxide from the pit conversion facility were going to be used in the immobilization facility. DOE has included plutonium polishing as a component of the MOX facility to ensure adequate gallium and impurity removal from the plutonium dioxide. Section 2.4.3 and the hybrid alternatives analyses in Chapter 4 of Volume I were revised to include a discussion of plutonium polishing.

Response FD336–10 discusses the separate cost reports associated with this EIS. The additional risks associated with plutonium polishing in the MOX facility were added to the Human Health Risk and Facility Accidents sections of Chapter 4 (e.g., see Sections 4.3.2.4 and 4.3.2.5). Gallium presence in appreciable concentrations is a concern both in the fabrication of MOX fuel through possible interference of the sintering process of uranium and plutonium oxides, and in fuel performance by increasing the potential for corrosion and embrittlement of the fuel cladding.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 20 OF 30

STAND Comment #11, Page 12 of 19

c. What are the consequences of higher levels of gallium in the MOX fuel during reactor operation?

3. The facility is "not planned for high degrees of automation." This raises the critical issues of heightened worker exposure to americium and fine-grained plutonium oxide dust. DOE must answer the following questions within the scope of the SPDEIS:

a. What is the difference in costs between a state of the art highly automated MOX facility that protects worker health and safety and a labor intensive MOX facility that places workers at higher risks? 27

b. Why is the DOE proposing, in the feasibility assessment, a facility without high degrees of automation? What is DOE proposing in the SPDEIS?

c. What are the differences in risks to workers in the MOX facility at varying levels of automation? DOE must clearly explain the differences in radiation exposures at each work station, the number of work stations required, and the number of work stations that handle the plutonium oxide and depleted uranium oxide powders."

In the Final SPDEIS, DOE should address these questions.

C. *"The role of the NRC has been difficult to ascertain. Part two of the feasibility assessment states that the MOX facility will be licensed by the U.S. Nuclear Regulatory Commission. Why did DOE fail to involve the NRC in this assessment and involve the agency in the decision process at the earliest possible opportunity? Why were representatives from European private and state owned corporations involved with this process while the legally responsible U.S. Agency was excluded?*

Under NEPA, DOE is required to consult with and obtain the comments of "any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved." No comments by the NRC are published in Volume 4 of the S & D PEIS. This is an obvious NEPA violation because the NRC has special expertise. DOE admitted during the PEIS process that NRC will be a licensing agency, and nuclear reactors regulated by NRC will burn the MOX fuel. In the NOI, the role of the NRC remains unidentified. Since the NRC will be responsible for regulating both a MOX fuel fabrication facility and MOX fuel irradiation, why is the critical role of NRC left undefined?" 28

DOE addressed the role of the NRC in the Draft SPDEIS. The NRC has provided substantial comments during meetings with DOE OFMD officials in the past year. These comments should be referenced in the Final SPDEIS.

FD336

FD336–27 **Human Health Risk**

DOE acknowledges the commentor's concerns about occupational exposures related to the degree of automation of the MOX facility. Appropriate automation would be used at the MOX facility and worker exposures would be kept as low as is reasonably achievable. DCS's experience in Europe shows that worker exposure is much lower than that reported in the SPD Draft EIS. As shown in the Human Health Risk sections in Chapter 4 of Volume I related to the MOX facility and in Appendix J (e.g., Table J–11), the average worker dose was revised to 65 mrem/yr from 500 mrem/yr. The cost difference between a highly automated MOX facility and the facility design presented in this SPD EIS has not been quantified.

The analyses presented in Chapter 4 indicate that the MOX facility would be operated in a manner that would minimize worker exposure. It is not possible at this point to describe every glovebox station in the MOX facility because its design is still evolving; however, it is known that certain processes (e.g., plutonium dioxide/depleted uranium dioxide blending) could result in higher occupational exposures than others. As explained in Chapter 4 and Appendix J, doses for all operations would be kept well below the Federal limit of 5,000 mrem/yr, and an ALARA program would ensure that doses are reduced to levels that are as low as is reasonably achievable.

FD336–28 **NRC Licensing**

NRC's role is defined. The MOX facility would be licensed by NRC under 10 CFR 70, *Domestic Licensing of Special Nuclear Material.* NRC will continue to be responsible for licensing the reactors that would use MOX fuel, and as such would have to approve the use of MOX fuel through the license amendment process (10 CFR 50.90). Early in the preparation of the *Storage and Disposition PEIS* and this SPD EIS, DOE invited NRC to be a cooperating agency for the surplus weapons-usable fissile materials program. NRC declined the offer in favor of being a commenting agency. DOE is conducting regular meetings with NRC on the MOX approach, including fuel design and qualification.

STAND Comment #11, Page 13 of 19

D. *"In the feasibility assessment, DOE proved it is perfectly capable of presenting complex materials in an orderly, uniform, and coherent format. It would be very easy for DOE to assess occupational safety within the context of this existing framework.*

In Volume 2, part 3, "The Generic MOX fuel fabrication process," thirty four work stations are identified for the entire fabrication process. For each work station, DOE should answer the following questions in plain and simple language. A complex table filled with data in scientific notation is unacceptable, as is average worker doses. Workers should be made fully aware of the known and potential risks of working in a MOX facility.

1. What is the expected range of radiological exposure under normal and abnormal operating conditions? According to European MOX Fuel Fabricators, maximum and average radiation doses are significantly higher than the average reported by DOE in the S&D PEIS:

A "staged dose assessment" at BNFL's Sellafield MOX Plant reported plant averages of 1.5 rem/year with "high manual involvement." 29

Belgonucleaire reported that maximum exposures ranging from 4.7 rems/year to 1.4 rems/year between 1987 and 1996 at the P0 MOX plant. This figure is nearly six times higher than the projected average reported by DOE in the PEIS. Belgonucleaire exceeded, until 1996, BNFL and Siemens Radiological Standards and Criteria, and DOE administrative limits.

Siemens reported a proposed effective equivalent dose of 1 rem per year (10 msv/year).

How do DOE's estimates, which are admittedly for a more labor intensive facility, compare to estimates and working knowledge from Europe?

2. Which stations will involve working with oxide powders and what increased risks of inhalation and ingestion will these workers have relative to other work stations? How much "very light and fluffy" powder would have to be inhaled to cause acute health effects, chronic adverse health effects, or a high risk of cancer?

3. Which stations will involve working with MOX scrap materials and dry contaminated waste, and what are the increased and associated risks of working with these specific materials? 30

4. What options are available to lower all these risks if increased automation was available?"

In the Draft SPDEIS, DOE presented cumbersome tables burdened with irrelevant and redundant scientific notation, and neglected to address the range of radiation exposures in a MOX plant. In the Final SPDEIS, DOE should address these issues.

FD336

FD336–29 **Human Health Risk**

The worker dose given in this SPD EIS was revised based on France's MELOX plant operating experience.

The higher worker doses quoted by the commentor are associated with European MOX facilities that handle reprocessed irradiated plutonium, which has a much higher dose conversion factor due to trace amounts of fission products in addition to a different plutonium isotopic spectra than that associated with weapons-grade material. For comparison, the same amount of unirradiated plutonium, such as that being proposed for the U.S. MOX facility, would have a dose conversion factor of about 75 percent less. It would therefore be expected that these worker doses would be higher than those resulting from the handling of unirradiated weapons-grade plutonium at the proposed MOX facility.

The remainder of this comment is addressed in response FD336–27.

FD336–30 **Human Health Risk**

The total predicted numbers of adverse health effects from working with plutonium, including plutonium in powder form, scrap materials, and dry contaminated waste , are included in the Human Health Risk sections of Chapter 4 of Volume I related to the MOX facility and in Appendix J (e.g., Table J–11). Less than 0.1 additional fatal cancers would be expected among workers from MOX facility operations over a 10-year period. Workers are protected against the inhalation of plutonium because glovebox operations are involved and the workers wear masks. During this same 10-year period, no additional fatal cancers would be expected from MOX facility normal operations in the general population. The amount of plutonium that would have to be inhaled to cause an LCF is about 0.00005 g (5 one-hundred thousands of a gram), depending on the isotope mixture. However, since the amount of plutonium inhaled by workers or the general population from the operation of the proposed surplus plutonium disposition facilities is significantly less than this, no LCFs from plutonium inhalation are expected.

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 22 OF 30

STAND Comment #11, Page 14 of 19

E. *"The feasibility assessment features a large number of technical points that raise additional questions that should be answered in the SPDEIS, such as:*

1. How many plutonium processing steps are required within a MOX fuel fabrication facility that are not required in a vitrification facility?

2. MOX fuel materials will undergo frequent sampling and laboratory testing. For all necessary laboratory measurements, what mechanisms will be in place to insure quality control of critical measurements such as gallium content, isotopic ratios, fuel rod damages? What measures are necessary to assure proper accounting of plutonium?

3. The first blend of MOX fuel will require approximately 30% plutonium to "assure Pu isotopic homogeneity." Has this process been used before? What is the possibility of the identified alternative of extensive Pu blending being necessary? What additional risks to workers and operational costs would be incurred under the Pu blending alternative?

4. A ten percent "rework" factor is assumed throughout the process. At what point would a higher rework factor require that the MOX powder be "scrapped" and require immobilization? What is the effect of this rework on occupational safety?

5. What particle sizes are necessary to obtain uniform and homogenious MOX fuel blend required for commercial use? During process of the master blend, the powders are referred to as "very light and fluffy." What size particles will be involved at this "very light and fluffy" stage? What size particles are anticipated once the pore former, binder, and lubricant are added? How does this particle size, at each processing step, compare to the requirements for immobilization? 31

6. During sintering operations, a temperature of 1800 degrees centigrade in an argon/hydrogen environment is reported as required to volatilize undesirable materials. How is this temperature regulated? What would be the consequences of heating the MOX fuel pellets at higher temperatures? What are the risks associated with argon and hydrogen at these temperatures?

7. What is "grinder swarf?" What is the composition of this material and are there any additional hazards handling it?

8. What is the composition of "dirty scrap" which would accumulate during the fabrication process?

9. According to the assessment, dirty scrap would require either immobilization, storage, or chemical reprocessing (to retrieve the plutonium). What is DOE's preferred alternative for disposition of this dirty scrap? If immobilization is preferred, what steps would be necessary, if any, to prepare the scrap?

FD336

Concerning the commentor's question about increased automation, the MOX facility design is subject to modifications during the design and construction process. Modifications, including automation, may be made, as appropriate, to reduce radiation exposures and to optimize equipment placement and process flow. All proposed surplus plutonium disposition facilities, including the MOX facility, would incorporate design features and be operated in a manner that reduces doses to workers and the public to ALARA levels.

Although the format of the radiological impact data is the same among alternatives, there is no explicit redundancy in the information.

FD336–31 **MOX Approach**

The processing steps involved in the immobilization of surplus plutonium are given in Section 2.4.2, and those involved in the fabrication of MOX fuel are given in Section 2.4.3. A comparison of the number of processing steps would not be appropriate because a number does not provide an indication of the complexity of the process and the potential environmental impacts.

DOE would implement quality assurance and safeguards (material control and accountability) procedures at each of the proposed surplus plutonium disposition facilities. DOE has implemented a quality assurance program for the entire fissile materials disposition program in accordance with DOE Order 414.1. This quality assurance program will be expanded by DCS into detailed plans for each step of the disposition process. Additional safeguards may be added or modified as required, especially those needed to support international inspections.

As explained in Section 2.4.3.2, MOX fuel fabrication would begin with blending and milling the plutonium dioxide powder to ensure general consistency in enrichment and isotopic concentration. The uranium and plutonium powders would be blended and milled together to ensure uniform distribution of the plutonium in the MOX, and to adjust the particle size of the MOX powder. The MOX powder would then be made into pellets by pressing the powder into shape, sintering (baking at high temperature) the formed pellets, and grinding the sintered pellets to the proper dimensions.

Materials and pellets would be inspected at each stage, and any rejected materials would be returned to the process for reuse. All operations would be performed in sealed gloveboxes with inert atmospheres. Sintering furnaces would also be sealed, and offgases would be filtered and monitored prior to release to the atmosphere. Because blending is planned for all the plutonium dioxide, the risks are reflected in the Human Health Risk sections in Chapter 4 of Volume I related to the MOX facility and in Appendix J. Costs associated with the MOX facility are contained in a separate report as discussed in response FD336–10.

The 10 percent rework factor is a conservative estimate established to determine potential environmental impacts. It is not expected that the fabrication of MOX fuel would result in that amount of rework because the technologies used in this process are well known in industrial-scale operation. The human health risk of reworking 10 percent of the feed material are included in the overall risks reported in the Human Health Risk sections of Chapter 4 related to the MOX facility and in Appendix J.

The Request for Proposals specified that plutonium dioxide particle sizes would range from 1 to 100 microns. However, the decision to include the plutonium-polishing process in the MOX facility has essentially eliminated particle size requirements for the plutonium dioxide feed. The immobilization feed particle sizes are expected to range from 1 to 100 microns, although during processing, the particle size would be reduced to less than 20 microns (nominally 1 to 3 micron mean diameter).

A very narrow temperature range during sintering is required to produce uniform MOX fuel pellets that meet specifications. The temperature range would be controlled through standard mechanisms, including continual temperature measurement, automatic regulation of the heat source, and cooling mechanisms. These are standard industrial temperature control mechanisms used by industries that require high temperatures in their operations. The specific mechanisms, controls, equipment, and instrumentation would be selected during facility design. There are no safety concerns specific to the use of argon and hydrogen at the temperatures necessary for MOX fuel pellet production, only those related to any

high-temperature operation. Heating MOX fuel pellets at a temperature higher than 1,800 C (3,272 F) would not necessarily have any associated consequences. However, there is always the potential for pellets to be out of specification, even when all process parameters are met. Out-of-specification pellets can be recycled by returning them to the appropriate stage of the MOX fuel fabrication process.

The term "grinder swarf" as used in the *Feasibility Assessment* refers to MOX fuel material that results from grinding the sintered fuel pellets in a grinder to a uniform size. This material would be collected and recycled in the fuel fabrication process.

The term "dirty scrap" as used in the *Feasibility Assessment* is MOX fuel material that has become mixed with non-fuel material during processing or fabrication, and therefore, cannot be recycled as clean scrap. However, adding the plutonium-polishing process to the MOX facility makes this material amenable to recycling. DOE's preference is to recycle the nominal amount of "dirty scrap" expected to be generated during MOX fuel fabrication this way. If larger than expected quantities of "dirty scrap" are generated during MOX fuel fabrication, this material would be immobilized, rather than recycled, to avoid creating the larger amounts of wastes that would be associated with processing the material through the plutonium-polishing step.

STAND Comment #11, Page 15 of 19

10. DOE has consistently stated that a dry fuel fabrication process is desirable. It has not specifically explained the risks associated with existing wet processing technologies, or explained the differences between existing technologies. What is the possibility of an aqueous process becoming necessary? What increased risk to workers is there for using dry processes? 32

11. There are several references to liquid waste in the feasibility assessment. In Volume 2, part 6, equipment is identified as necessary for "liquid waste at containment and liquid waste treatment." In Appendix D, there is reference to an email message to "assume contaminated liquid waste generation is 5 liters/month." What is the composition of this liquid waste and was it reported in another format in the S&D PEIS? Exactly how much liquid waste will there be that was not reported." 33

In the Draft SPDEIS, DOE did not address these issues and failed to adequately compare MOX to immobilization. In the Final SPDEIS, DOE must address these issues in order to provide the required comparison between MOX and immobilization.

XII. During the scoping period STAND wrote, in regard to plutonium pit disassembly and conversion:

A. "While disposition discussion has focused on MOX fuel and immobilization technologies, the action common to both alternatives--plutonium pit conversion/disassembly (pit conversion)--is characterized by an assortment of unanswered questions and technical difficulties.

Ironically, while DOE touts it dual track strategy for plutonium disposition, it is firmly committed to a single track strategy for pit conversion. DOE's sole alternative for pit conversion is the Advanced Recovery and Integrated Extraction System (ARIES). To date, DOE has not analyzed the full range of reasonable alternatives, has failed to identify the full range of alternatives, and has even failed to analyze the range of subalternatives within the ARIES alternative. In spite of abundant evidence to the contrary, DOE has mistakenly presented ARIES as common to all alternatives. In reality, ARIES or other pit conversion technologies have requirements that are specific to the MOX option, and this reality dictates that pit conversion not be analyzed as a common activity. 34

There are two primary issues associated with the existing inadequate analysis which dictate a reevaluation of pit conversion:

1. The presence of gallium and other impurities in weapons grade plutonium, which was reported during the S&D PEIS process but not incorporated into the S&D PEIS analysis. The SPDEIS will require a reanalysis of pit conversion to incorporate the following issues as they pertain to gallium and other impurities within all pit conversion alternatives.

FD336

FD336–32 Plutonium Polishing and Aqueous Processing

As discussed in response FD336–6, DOE has added a plutonium-polishing process in the MOX facility. The risks associated with this process are included in the Human Health Risk and Facility Accidents sections in Chapter 4 of Volume I related to the MOX facility and in Appendixes J and K.

The desirability of a dry process stems primarily from its modern nature. Wet processing, while historically the predominant method used by DOE, is an older, less efficient and messier technology. The dry HYDOX system, a simpler and more easily controlled process, is the current standard for new operations in the weapons complex. Metal dissolution via wet processing generates hydrogen at a rate controlled by acid concentration and temperature, as opposed to the dry process where hydrogen introduction is precisely controlled by the quantity of feed. Since metal dissolution in acid is an exothermic process (i.e., generates heat), wet dissolution has a multi-variable runaway reaction potential the dry process does not. Finally, the use of heated, pressurized acids in a recirculation system has historically led to significant leakage within gloveboxes over time. Coupled with the increased maintenance and repair loads of a wet process, this increases worker risk even beyond the difficulties it poses to efficient process control. The risks of aqueous processing are detailed in the EIS.

After the plutonium metal has been rendered into a powder in the pit conversion facility, this material is dissolved in the plutonium polishing process to remove gallium in the MOX facility. This step involves the classical processes used in wet processing recovery (e.g., ion exchange, precipitation, and calcination) with two important exceptions: plutonium oxide does not generate hydrogen in dissolution and does not require pressurized recirculation of the dissolution acid. The potential accident associated with the plutonium-polishing step are included in Appendix K.

FD336–33 Waste Management

The technical reports on which this SPD EIS is based provide liquid waste generation rates. The introduction to Appendix H was revised to include these liquid waste generation rates. For all but nonhazardous wastes, DOE

chose to combine the liquid and solid waste generation values into one waste generation rate for ease of comparison with site waste generation numbers. Generation rates for contaminated liquid waste would generally be small.

FD336–34 Plutonium Polishing and Aqueous Processing

As discussed in response FD336–10, the full range of reasonable alternatives for the disassembly of pits and conversion of the plutonium was analyzed in this SPD EIS. As discussed in response FD336–2, Sections 2.18 and 4.30 provide summary and incremental impacts, respectively.

STAND Comment #11, Page 16 of 19

a. Since the plutonium oxide derived from pit conversion must be very pure for MOX fuel fabrication, gallium must be reduced to very low levels (less than 100 parts per million) or altogether removed in order to fabricate MOX fuel. No similar requirements have been reported for conversion to plutonium oxide suitable for immobilization activities. DOE is obligated to address two pit conversion suballernatives, one for the MOX fuel track and one for the immobilization track. The differences in time, costs, waste streams, risks, and occupational hazards between conversion for MOX fuel use and conversion for immobilization action must be identified and analyzed clearly and completely. Failure to identify and analyze the range of effects associated with pit conversion will leave both the S&D PEIS and the SPDEIS legally and scientifically insufficient.

b. Gallium reduction for MOX fuel use is unproven. DOE has placed all its bets on thermal treatment, a dry process, even though this technology has not even been tested at a pilot stage. Nobody should be asked to accept an unproven technology. The alternative to thermal processing which was reported and discussed, but not incorporated into the analysis, is an aqueous process. Aqueous processing may be an undesirable technology, but it remains a reasonable alternative until a proven dry process is developed, tested, and proven suitable. Without identifying a reasonable, though undesirable, alternative DOE failed to fully analyze the cumulative effects of its decision to adopt the dual track strategy. The difference between the no-action alternative and the preferred alternative were inaccurately reported in the S&D PEIS. For the SPDEIS to be credible suballernatives must be developed for pit conversion for MOX fuel: 34

a. Aqueous processing for gallium reduction.
b. Thermal processing for gallium reduction.

2. The ARIES process has yet to be tested at a pilot scale and is currently being analyzed at the demonstration level. DOE has not identified and analyzed the full range of reasonable alternatives if ARIES technology cannot be implemented. The same issues and solutions discussed above are applicable here as well. For the S&D PEIS to be credible, DOE is obligated to identify and analyze the full range of reasonable alternatives for pit conversion.

As pointed out numerous times, DOE has still not evaluated the full range of alternatives for plutonium pit disassembly and conversion, and has still not conducted a comparative analysis between the requirements and impacts for MOX versus immobilization. This should be addressed in the Final SPDEIS.

B. Even within the ARIES process there are many emerging issues and questions that DOE is obligated to address. These include:
Why is worker radiation exposure now estimated to be at 500 millirems per year, as reported by the Amarillo National Resource Center for Plutonium in its second quarter, 1997 newsletter? This is a 150% increase above the 200 millirems per year exposure documented in the S&D PEIS. 35

FD336

FD336–35 **Pit Disassembly and Conversion**

The worker dose estimate in the *Storage and Disposition PEIS* was preliminary. This estimate was revised in this SPD EIS to reflect a greater understanding of the pits that would be dismantled and the associated doses connected with the dismantlement effort. This dose includes all of the steps needed to dismantle the pits and to convert the plutonium to an oxide during the operation at the proposed pit conversion facility (e.g., the Special Recovery Line). Section 2.4.1.2 was revised to more fully discuss the pit disassembly and conversion process.

The analyses presented in Chapter 4 of Volume I indicate that the pit conversion facility would be operated in a manner that would be in compliance with all applicable regulations. The pit disassembly and conversion process requires the handling of plutonium dioxide powder to transfer it from the oxidation furnace crucible to a handling can in the canning operation (which may include a blending step to declassify the powder). Automation of these steps is being evaluated as part of the technology development program and will be instituted if it is determined that the dose to the handler is too high.

As explained in Chapter 4 and Appendix J, doses for all operations would be kept well below the Federal limit of 5,000 mrem/yr and DOE's administrative limit of 2,000 mrem/yr. (The Pantex administrative limit, which is less than the 2,000–mrem/yr DOE limit, might be exceeded unless modified if the pit conversion facility were sited there.) An ALARA program would ensure that doses are reduced to levels that are as low as is reasonably achievable.

The LANL document, *Estimates of Staffing for the Pit Disassembly and Conversion Facility* (LA-UR-97-1844, 1997), was one of the referenced documents used to develop the *Pit Disassembly and Conversion Facility Environmental Impact Statement Data Reports* (LA-UR-97-2907 through 2910, June 1998).

STAND OF AMARILLO, INC.
DON MONIAK
PAGE 28 OF 30

STAND Comment #11, Page 17 of 19

At each step of the ARIES process, what is the variability in worker exposure?

What steps in the ARIES process require workers to handle the plutonium oxide powder?

What wastes are created at each step of the ARIES process?

Since the NOI for the SPDEIS was issued, "ARIES" has been exposed as unnecessary for all plutonium pits and as only a portion—not the whole—of a plutonium pit disassembly and conversion operation. In the Final SPDEIS, these questions should be addressed in the context of all PDCF activities, not just "ARIES" operations. 35

DOE should incorporate the LANL document *Estimate of Staffing for the Pit Disassembly and Conversion Facility* into the Final SPDEIS.

XIII. During the scoping period STAND wrote, in regard to the role of the ANRCP:

"The Amarillo National Resource Center for Plutonium has functioned as a taxpayer funded MOX lobbying consortium. As stated in our previous comments and in a letter to Secretary Pena on May 23, 1997, the ANRCP has used, and continues to use, DOE funds to influence the site selection process outside of the NEPA process.

The Office of Fissile Materials has written, in a June 13 letter to STAND of Amarillo, PANAL, and Peace Farm, that the "Amarillo National Resource Center for Plutonium is not advising the Department on site selection, has no role in the SPDEIS and does not represent the Department in this regard." However, the ANRCP did have a role in the S&D PEIS. DOE must define how that role influenced the ROD for the S&D FEIS, and how that role affects the SPDEIS.

This is a critical issue because the ANRCP has used DOE funds to act in a clear advocacy role for siting all disposition facilities at Pantex, and this role was again illustrated at the DOE workshop in Amarillo on June 12, 1997. At the workshop. 36

ANRCP funded economist Ray Perryman presented comments in favor of locating all proposed facilities at Pantex. These comments were also distributed from the ANRCP workshop booth. The comments were based on an ANRCP report, and thus a DOE funded report, which concluded that Pantex is the best economic choice for all plutonium disposition and storage activities. What parallel studies with DOE funds have occurred for other sites?

An ANRCP poster presentation did not even reference immobilization as an option. It seems that the ANRCP has forgotten that the "N" in ANRCP stands for "National", and has failed to present the national implications of the disposition program.

FD336

FD336–36 **DOE Policy**

ANRCP is a private entity funded and directed by the State of Texas using grant funds provided by DOE. The specific work they perform is the subject of agreement between ANRCP and the State of Texas. DOE (through the Amarillo Area Office) provides oversight only on the terms and conditions of the grant to the State of Texas. That oversight shows that the work being performed is within those terms. ANRCP has not and will not play a role in the preparation of this SPD EIS nor does it represent DOE in any manner. Further, the reports, studies, statements, and presentations made by ANRCP do not represent the position of DOE. For the above reasons, DOE has considered the commentor's suggestion of parallel studies and has decided they are not appropriate. Comments from ANRCP were treated the same as any other comment on the SPD Draft EIS.

STAND Comment #11, Page 18 of 19

Since the hearings, ANRCP has continued to misinform the public. In the Volume III, Issue III ANRCP newsletter, "aqueous processing" is falsely defined as processing with water. ANRCP continually fails to inform area residents as to what aqueous processing and chemical dissolution really means, resulting in a controversial issue being dangerously understated.

In the same issue, ANRCP implies that glove box operations are a new technology, and states that the ARIES process will produce a "minimal amount of waste" and have safety precautions that would keep worker radiation exposure to a "minimal level." At no time has the ANRCP informed the public what a "minimal" waste stream is.

DOE must recognize and take into account the fact that ANRCP's activities strongly contribute to a public bias towards Pantex as a disposition site, and MOX as a disposition option. To correct for the blatant violations of the NEPA process incurred by the ANRCP, DOE should consider funding parallel studies at all candidate sites to compare the results of taxpayer funded research sponsored by ANRCP. Another valid option is for DOE to completely disregard all input from the ANRCP in the SPDEIS." 36

These comments continue to adequately reflect the problematic nature of a publicly funded advocacy group disrupting the NEPA process. Since these comments were submitted the ANRCP completed a "Preliminary Comparative Risk Assessment" that failed to incorporate public input and presented a misleading and inaccurate portrayal of proposed plutonium processing operations at Pantex.

At the August 1998 public hearings in Amarillo, DOE-funded ANRCP employees and contractors provided substantial comments on the issues. These comments should be counted as DOE comments, not public comments, as they were funded by the Department of Energy.

STAND believes that the $50 million of DOE funds spent on the ANRCP should be incorporated into DOE's Cost Analysis report. $25 million should be added to the "operating costs" estimate for siting a plutonium pit disassembly and conversion facility at Pantex, and another $25 million should be added to the "operating costs" for a MOX fuel fabrication facility.

XIV. During the scoping period STAND wrote, in regard to the role of the European plutonium industry:

"Representatives of the European MOX and plutonium fuel industry have exerted considerable energies to lobby the American public and DOE to move forward on the MOX option. DOE has not insured that voices are heard that counter this wave of publicity. 37

DOE has defined the European MOX industry strictly in terms of its experience level to the absolute exclusion of its operational record. European MOX Industry representatives have even acted as paid consultants to DOE.

FD336

FD336–37 **MOX Approach**

DOE did consider past performance along with past experience in awarding the MOX fuel fabrication and irradiation services contract. DOE's NEPA implementing regulations in 10 CFR 1021 contain a specific provision, Section 216, which allows contracts to be let contingent on completion of the NEPA process, in this case the SPD EIS ROD. This section requires DOE to phase contract work in a way that will allow the NEPA review process to be completed in advance of a go/no-go decision. In the case of this SPD EIS, the go/no-go decision will be determined by which alternative is selected by the decisionmaker. In accordance with 10 CFR 1021.216, DOE prepared and provided an Environmental Critique, including information on DCS's European MOX experience, to the source selection board. The critique documents the consideration given to environmental factors and records the relevant environmental consequences of reasonable alternatives have been evaluated in the selection process. Until the decision is announced in the ROD, no substantive design work or construction can be started on the MOX facility. DOE then prepared an Environmental Synopsis on the basis of the Environmental Critique which was released to the public as Appendix P of the *Supplement to the SPD Draft EIS* in April 1999. During the 45-day period for public comment on the *Supplement*, DOE held a public hearing in Washington, D.C., on June 15, 1999, and invited comments. Responses to those comments are provided in Volume III, Chapter 4.

All comments received on the SPD Draft EIS were given equal consideration. DOE has prepared this SPD EIS by carefully obtaining comparable data on all of the alternatives, analyzing the data in a consistent manner using well-recognized and accepted procedures, and presenting the results in a full and open manner.

DOE has been actively pursuing immobilization options. Meetings have been held with European vitrification experts to gain their insights.

STAND Comment #11, Page 19 of 19

This activity indicates a clear bias towards the MOX option that suggests that DOE is not sincerely considering a full immobilization alternative. After all, COGEMA and BNFL have substantial experience in vitrification, yet DOE is not consulting these companies on vitrification issues. For DOE to compensate for this bias towards MOX, it must objectively address the following issues and questions regarding European MOX experience in this EIS:

How much opposition to MOX fuel fabrication and utilization in Europe is there? What are the primary arguments citizens have set forth in opposition to MOX in Europe?

Why have two large MOX fabrication facilities--the Belgomeleoire P1 plant and the Siemens "new" Hanau plant--failed to obtain licenses during this decade?

Why did the old Hanau plant operated by Siemens close in the early 1990's? How many accidents occurred at that plant during its operational history, and how many workers were contaminated with radiological materials? 37

What real impacts to air, water, and soil have European MOX facilities had in the past 30 years? DOE should obtain and make public annual data on emissions and discharges of radioactive and nonradioactive hazardous substances from these plants.

What differences in the regulatory framework--licensing, pollution limits, worker and public exposure to plant pollutants--exist between the United States and nations which fabricate and/or use MOX fuel?"

In the Draft SPDEIS, DOE only cited published documents from academic and trade journals to document the European MOX industry experience. This is an insufficient approach, and DOE should address these questions in the Final SPDEIS by obtaining and making public pertinent information on the European MOX industry as a condition for those companies doing business as DOE contractors.

Sincerely,

Don Moniak
Program Director
STAND of Amarillo

FD336

STAND of Amarillo, Inc.

September 28, 1998

STAND COMMENT #12
Surplus Plutonium Disposition Draft Environmental Impact Statement (Draft SPDEIS)
Re: NEPA AND PLUTONIUM PIT STORAGE
AT THE PANTEX NUCLEAR WEAPONS PLANT

Office of Fissile Materials Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C 20585

Dear Department of Energy, Office of Fissile Materials Management:

The Department of Energy continues to store plutonium pits at the Pantex plant in containers unsuitable for long-term storage and in facilities that mostly lack required environmental controls and that are considered "unacceptable" by Pantex officials. Since DOE's National Labs consider "extended storage" to be greater than five years (see Background, Section III), most plutonium storage at Pantex should be defined as "long-term" rather than "interim." DOE's major efforts to improve the safety of long-term storage of plutonium pits at Pantex have not materialized, and DOE is formulating plans and proposals in response to its failure to implement its storage decisions, but without required public input.

I. "Interim" vs. "Long-term" Storage of Plutonium at Pantex.

A. Interim Storage of pits at Pantex is presently covered by the Record of Decision (ROD) for the *Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components* (Pantex EIS) and referenced in the *Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Impact Statement* (SD-PEIS) and the *Stockpile Stewardship and Management Programmatic Environmental Impact Statement* (SSM-PEIS). Tiering of the Draft SPDEIS to these documents cannot occur without a supplemental EIS for long-term plutonium pit storage. 1

1. The Pantex EIS only addressed storage of pits from disassembly activities, and not from other sites.

2. According to the Pantex EIS, "Interim storage does not refer to a time frame, but rather to the interval of time that will occur until a Record of Decision (ROD) is made on long term storage and the site and facilities in that ROD are ready to receive the pits. The decision on the site and facilities for long-term storage will be based on the SD-PEIS." (Page 1-10)

CONFIDENTIAL DRAFT

(806) 358-2622 7105 W. 34th Ave. Suite E - Amarillo, TX 79109 FAX (806) 355-3837

FD337

FD337–1 **Storage and Disposition PEIS and ROD**

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

Worker exposure estimates attributable to the decision to repackage pits in AL–R8 sealed insert containers were incorporated in the revised Section 2.18 and Appendix L.5.1.

The issues raised in this comment relate to pit storage decisions made in the *Storage and Disposition PEIS* and 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). DOE is considering leaving the repackaged surplus pits in Zone 4 at Pantex for long-term storage. An appropriate environmental review will be conducted when the specific proposal for this change has been developed; addressing, for example, whether additional magazines need to be air-conditioned. The analysis in this SPD EIS assumes that the surplus pits are stored in Zone 12 in accordance with the ROD for the *Storage and Disposition PEIS*.

3 The coverage for the Pantex EIS was only for "interim storage requirements for pits from weapons dismantlement." (Page 1-14). DOE also specified in the Pantex EIS, that, "the proposed action in this EIS was designed to specifically to encompass the interim storage of pits from weapons dismantlement until such time as longer term decisions regarding storage and disposition could be made and implemented." (Page 1-14, 1-16).

4 Coverage for interim storage of Rocky Flats plutonium was covered in the context of "cumulative impacts" for the preferred alternative in the SD-PEIS.

5. In the January 1997 ROD for the Pantex EIS, DOE selected Pantex for the interim storage of up to 20,000 plutonium pits in Zone 4 bunkers, and rejected interim storage of plutonium pits at other sites based on transportation risks and costs.

6. In the Pantex EIS, DOE failed to conduct a "full and fair analysis of the significant environmental impacts" (CFR1502.1) did not analyze reasonably foreseeable significant adverse impacts such as the failure to implement the storage decision (CFR 1502.22.(b).(1), and omitted known scientific information. (See also Background: Section IV.)

B. Long-term storage of plutonium is covered in the ROD's for the SD-PEIS and SSM-PEIS, and referenced in the Pantex EIS. The failure to implement the SD-PEIS ROD could be interpreted as meaning that plutonium storage at Pantex would remain defined as "interim."

1. DOE confirmed that long-term storage of plutonium was only to be addressed in the SD-PEIS (and also SSM PEIS): "Decisions on the long-term storage of pits would be made in the RODs of the PEIS's. A decision relating to the interim storage of pits at Pantex would be made in the ROD of the Pantex EIS pending implementation of the selected long-term storage alternative(s)." (SD-PEIS, Page 1-6, Page 1-7) 1

2. In Footnote 6 of the SD-PEIS (Page 1-7), DOE wrote that: "If there is a delay in implementing the ROD's for either of the PEIS's (for example, delay due to the availability and construction of upgrades for long-term storage facilities), then there would be a need to make a decision on the location of interim storage of pits. The Pantex EIS has been completed with the analysis of interim storage alternatives...to support a decision relating to the storage of pits until a long-term storage decision is made and implemented." (Page 1-9)

3. Storage of RFETS at Pantex was considered only in the context of long-term storage analyses and the cumulative impact of long-term RFETS plutonium storage on the interim storage of plutonium from dismantlement at Pantex.
4. In the SD-PEIS ROD, DOE selected Pantex as the long-term storage site for Pantex plutonium pits from dismantlement activities, RFETS plutonium pits, and SRS strategic plutonium pits. In the SD-PEIS, DOE selected existing facilities in Zone 12 at Pantex for long-term storage following upgrades to those facilities, and identified the AT-400A as the container in which all plutonium pits would be repackaged over a five year period.

FD337

II. JUSTIFICATION FOR A SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR LONG-TERM STORAGE OF PLUTONIUM PITS

STAND believes the U.S. Department of Energy (DOE) is in violation of the National Environmental Policy Act (NEPA) for not conducting a supplemental EIS for long-term and interim plutonium pit storage. In addition, DOE should not "charge" the costs of plutonium pit repackaging to the operations costs for a Plutonium pit disassembly and conversion facility at DOE candidate sites other than Pantex. DOE is in violation of NEPA for three specific reasons:

A. The ongoing transportation of plutonium pits from DOE's Rocky Flats Environmental Technology Site (RFETS) near Denver, Colorado to the Pantex Nuclear Weapons Plant near Amarillo, Texas. This action was proposed in the January 1997 Record of Decision (ROD) for the Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Impact Statement (SD-PEIS). Shipments of plutonium from RFETS to Pantex is in violation of NEPA for insufficient analysis and because it is only part of the long-term storage decision that has not been implemented. (see Background: RFETS Pu Shipments, Page 4)

B. Long- term storage activities at the Pantex plant that were not analyzed under NEPA. Since existing Rocky Flats plutonium pits were moved in violation of NEPA, they are being stored in violation of NEPA. According to the SD-PEIS ROD, long term storage of RFETS plutonium at Pantex was contingent upon the implementation of facility and container upgrades. These upgrades have since been abandoned. Long- term storage and interim storage activities of Rocky Flats plutonium at Pantex activities are occurring at the Pantex plant that were not analyzed under NEPA. (See Background: RF's Pu Interim Storage, Page 5) 1

Actions A and B are in violation of NEPA because:

- "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." (CFR1500.1.(b))

- The actions are not covered by the existing program statement (CFR1506.1.(c)).

- DOE has not prepared a supplemental Environmental Impact Statement in response to "substantial changes to the proposal or significant new circumstances or information." (CFR1021.314.(a)).

C. DOE is proposing and analyzing plans for long-term storage of plutonium at the Pantex plant outside of the NEPA process, which is in violation of NEPA requirements to

- "integrate the NEPA process with other planning at the earliest possible time to in planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts." (CFR1501.2).

FD337

- "begin its NEPA review as soon as possible after the time that DOE proposes an action or is presented with proposal."

- "Agencies shall not commit resources prejudicing selection of alternatives before making a final decision." (CFR1502.2.(f)).

(see Background: Long-Term Plutonium Pit Storage Plans, Page 8)

A. Background: RFETS Pu Shipments

Past and on-going transport of plutonium pits from DOE's Rocky Flats Environmental Technology Site (RFETS) near Denver, Colorado to the Pantex Nuclear Weapons Plant near Amarillo, Texas is a violation of NEPA. This action was proposed in the January 1997 Record of Decision for the Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Impact Statement.

1. The analysis of the effects of transport from Rocky Flats to Pantex was incomplete in the SD-PEIS, and some effects were not analyzed.

a. The future of the plutonium pits at Rocky Flats was analyzed within the context of the SD-PEIS. In the Pantex EIS, which only covered plutonium from dismantlement activities, DOE wrote that, "the environmental impact associated with transferring surplus pits from RF's to Pantex, including the impacts of their storage at Pantex Plant, will be included in the Final SD PEIS." (Page 1-15) Furthermore, DOE wrote that the proposed action in the Pantex EIS "would not require additional intersite transportation." (Page 3-24). 1

b. In the SD-PEIS, DOE wrote that, "The intersite transportation analysis for shipment of the RFETS Pu to Pantex is given in Section 4.4 of this PEIS for both workers and the public" (Page 4-53).

c. The only indication of an intersite transportation analysis in the SD-PEIS is a single "summary table" (Table 4.4.3.2-1) presented in Section 4.4 and titled: "Total potential fatalities from intersite transportation activities for the preferred alternative for storage." (Page 4-821). This same table is referenced and repeated in Section 4.6, pages 4-892-893.

d. In the SD-PEIS, DOE wrote that, in regard to intersite transfers, "supporting analyses and information are contained in Appendix G." (Page 4-821. Q-1)

e. DOE stated Appendix G in the SD-PEIS "provides estimated health risks from the transport of materials, historical shipment data for the affected sites, and other supporting documentation." (Page G-1).

FD337

f. In Appendix G, there is no supporting documentation for transportation of plutonium from RFETS to Pantex or other sites. Appendix G only contains historical intersite shipment data.

g. Appendix G does not provide estimates of actual radiological exposures to maximum exposed individuals or the average exposures to people along the transportation routes.

h. While Appendix G provides a substantial assessment of the risks of transportation for MOX fuel fabrication in Europe, it does not provide equivalent analyses for intersite transportation of plutonium pits or non-pit plutonium. There are no accident analyses of on-the-road transportation risks.

i. Appendix M does not contain any analyses of on-the-road transportation risks only a bounding analysis for intrasite movement of plutonium.

j. In the Pantex EIS, DOE evaluated the radiological exposure and health risk from shipping 8,000 plutonium pits and shipping 20,000 plutonium pits from Pantex to potential interim storage sites. (Section 4.16.4.1, Pages 4-232 to 4-234). No equivalent analyses for radiological exposure was conducted for transportation of RF's plutonium to Pantex. DOE also provided supporting documentation and analyses in Appendix F of the Pantex EIS for all intersite shipments of nuclear materials. 1

B. Background: RFETS Pu Interim Storage

Interim storage of Rocky Flats plutonium is occurring at Pantex although the storage activities do not involve those activities necessary to implement the SD-PEIS ROD. Long-term storage and interim storage activities of Rocky Flats plutonium at Pantex activities are occurring at the Pantex plant that were not analyzed under NEPA. (The failure to implement long-term storage ROD has also resulted in the disposition transportation analyses being invalid at this time.)

1. Rocky Flats plutonium pits were moved in violation of NEPA, and are being stored in violation of NEPA.

2. Analysis in the SD-PEIS was for long-term storage of plutonium pits presently at Rocky Flats, not for interim storage of Rocky Flats plutonium.

3. The Pantex EIS only addressed interim storage of plutonium pits resulting from the dismantlement of nuclear weapons, and not plutonium from other sites.

In the Pantex EIS, DOE wrote that, "the environmental impact associated with transferring surplus pits from RF's to Pantex, including the impacts of their storage at Pantex Plant, will be included in the Final SD PEIS." (Page 1-15)

FD337

4. The Pantex EIS only addressed the cumulative impacts of the SD-PEIS alternative for long-term storage of Rocky Flats Pu pits.

The final SD-PEIS will contain analyses of RFETS alternative, including "intersite transportation, packaging operations at both RFETS and Pantex plant, storage of the pits, first in Zone 4 and then in Zone 12, and intrasite transportation from Zone 4 to Zone 12. The environmental impacts of its action have been added to this cumulative impact discussion in Chapter 4 of this Final EIS." (Page 1-15)

5. There is no NEPA analysis for interim storage of RFETS plutonium pits. According to the SD-PEIS, Interim Storage of Rocky Flats plutonium was to addressed in the RFETS "Interim Storage of Plutonium at the Rocky Flats Environmental Technology Site EIS" (Page 1-9). There is no document prepared or being prepared.

6. According to the SD-PEIS, the supporting documentation for storage of RFETS Pu at Pantex is covered in Appendix Q of the SD-PEIS, "storage and intrasite transportation (at Pantex) of RFETS pits at Zone 4 West is described in Appendix Q." (Page 2-53, 4-812) and "intrasite transportation of pits between Zone 4 and Zone12 at Pantex to support storage of RFETS pits for the Preferred Alternative is described in Appendix Q." (Page G-1).

7. The preferred alternative for long-term storage, and the analysis in Appendix Q to support storage of RFETS pits, is based on the assumption that existing Pantex facilities will be upgraded. According to the SD-PEIS, "Upgrade storage facilities in Zone 12 south (to be competed by 2004) at Pantex to store those pits currently at Pantex, and pits from RFETS, pending disposition. Storage facilities at Zone 4 would continue to be used for these pits prior to the completion of upgrades." 1

a. DOE did not analyze the effects of long-term storage of Rocky Flats plutonium in Zone 4 at Pantex. DOE presently intends to keep Rocky Flats and Pantex plutonium in Zone 4 pending disposition, which violates the spirit and letter of the SD-PEIS ROD (see IV).

b. In the SD-PEIS No Action alternative, DOE wrote that, "all site Pu holdings specific to the Storage and Disposition program would continue to be stored at Zone 4 facilities."

c. Use of Zone 4 for long-term storage of plutonium pits awaiting disposition constitutes an unreasonable alternative in the SD-PEIS. DOE did not cite Zone 4 long-term storage on Page 2-2, where it states that "Options that were not disqualified or eliminated through the use of the screening criteria emerged from the screening process...two options were identified as reasonable: Upgrade of storage facilities to make them suitable for long term storage and consolidation...at DOE sites." Long-term storage in Zone 4 did not pass this screening criteria.

d. In the SD-PEIS, the screening criteria for long-term storage included the technical viability of "providing "storage of nuclear components and materials for up to 50 years" (Page 2-2). In the

Pantex EIS, the average remaining life span for 22 pit storage facilities at Pantex is only 34 years, and this average includes buildings in Zone 12 that are newer than those in Zone 4 (Page 4-10).

e. Pantex managers defined the proposed upgrade of facilities in Zone 12 as only providing "interim storage of strategic pits, excess plutonium and secondaries in existing facilities for up to 30 years without having to construct entirely new facilities."

f. All identified upgrades for pit storage are for Zone 12 at Pantex, not Zone 4:

- "Buildings 12-66 and 12-82 in Zone 12 south would be modified to accommodate the long term store of Pantex Pu material and RFETS pit Pu material for the storage preferred alternative." (Page 4-863, 4-873, 4-876,4-879)

- "Since the result of any of these alternatives would be the removal of Pu pits not in weapons from Zone 4, aircraft crash and release probabilities would be reduced." (R-1).

- "The upgrade alternative would modify existing facilities in Zone 12 South." "The modifications for storage would be integrated into the Pantex infrastructure, waste, security and assembly/disassembly operations systems."

- Buildings 12-66 and 12-82 would be upgraded. (2-53) 1

g. In the SD-PEIS, DOE only analyzed the accident analysis of existing facilities in Zone 12. (Section M.5.2.5). "The accident analysis of the upgrade...of existing facilities at Pantex consist of two buildings, a Surplus Materials Storage Building (SM building) and a Strategic Reserves Storage Building (M-285)

8. The preferred alternative for long-term storage, and the analysis in Appendix Q to support storage of RFETS pits, is based on the assumption that repackaging of pits in AT-400A containers will occur the repackaging of plutonium pits in AT-400A containers.

a. DOE has failed to implement the AT-400A container repackaging program.

b. Even under the No-Action alternative, DOE was committed to repackage pits in the "more robust AT-400A containment vessel, and storage. (p. 2-22, SD-PEIS) DOE also committed to repackaging in AT-400A's in the Pantex EIS. The transportation of existing Pantex pits from Zone 4 to Zone12 and the repackaging of the pits from AL-R8 to AT-400A containers is analyzed in the Pantex EIS (SD-PEIS Page 2-53). The analysis in the Pantex EIS, DOE stated that "because this pit repackaging process has not been done with this type of container, there is no historical dosimetry information available. Therefore, conservative dose estimates have been made for this operation." (Page 4-274, Pantex EIS).

FD337

c. In Appendix Q of the SD-PEIS, DOE stated that pits to be transferred from Rocky Flats to Pantex "would be packaged in FL containers at RFETS before shipment, and upon receipt at Pantex, would be repackaged into AL-R8 containers in zone 12 South and placed into storage in Zone 4 west pending availability of AT-400A containers and relocation to upgraded facilities in Zone 12 South." (Q-1, 2-53)

d. "After the AT-400A containers are available, the pits would be repackaged into AT-400A containers for either long term storage or transportation to a disposition site." (Q-2, Q.4.)

e. In the Pantex EIS, DOE stated that "it is planned that up to 20,000 pits will eventually be repackaged in AT-400A containers," (Page 4-273), and in the SD-PEIS, DOE stated that 2,000 pits per year would be repackaged in AT-400A's starting in 1997 (SD-PEIS, Q.4).

f. In the SD-PEIS, DOE stated that, "For the disposition alternative, the transportation analysis was based upon the assumption that the storage preferred alternative had been implemented prior to the start of disposition transportation." (Page 4-893)

g. There is no analysis in Appendix Q or elsewhere in the SD-PEIS for repackaging of pits for transportation to a plutonium pit disassembly and conversion facility. DOE did not analyze the foreseeable option of the AT-400A program failing. (See Section III).

h. In 1996, Pantex managers stated "The AT-400A process will allow us to protect excess and strategic pits in storage until final disposition of the material is made." 1

C. Background: Proposed Long-Term Storage Plans

DOE is proposing and analyzing plans for long-term storage of plutonium at the Pantex plant outside of the NEPA process.

1. DOE continues to store plutonium pits in AL-R8 containers at Pantex; even though DOE did not, and has not, reported or analyzed in any NEPA documents the real impacts of storing plutonium pits in AL-R8 containers for an "extended storage period."

a. DOE did not report known information abut the AL-R8 during the SD-PEIS or the Pantex EIS. DOE only informed the public in NEPA documents that AL-R8's are not suitable for shipping. DOE did not inform the public that AL-R8's were considered unsuitable for extended storage by the Design labs.

In 1995, a joint Lawrence Livermore National Laboratory (LLNL) and Los Alamos National Laboratory (LANL) memorandum was issued to the Department of Energy's Albuquerque Operations Office as well as Pantex and DOE's Amarillo Area Office. In the letter, the labs recommended for strategic reserve pits:

- defined "extended storage" as more than five years.

- strongly recommended "that these pits be removed from the AL-R8's as soon as possible because of a potential corrosion problem caused by moisture and chloride in the Celotex."

- "If AL-R8's are used for more than 5 years or greater, humidity control is recommended at 15-20% RH plus an aggressive monitoring program to be established "

- Recommended temperature controls of 70 degrees (+/- 5 degrees) Fahrenheit in "both AL-R8 and AT-400A storage containers, and to all facility configurations."

Storage recommendations for surplus pits were less rigid but did include "we recommend that no pits be stored in AL-R8's."

b. DOE has no defined, approved schedule for repackaging of pits from AL-R8's into suitable storage containers and has not analyzed the impacts of long term storage of pits in AL-R8's. .

c. Estimates for repackaging pits from AL-R8's into a suitable environment range from 15-30 years in the *Conceptual Design Report (CDR) for Building 12-66* (Pages 9, 11) to five years--pending selection during the Pantex presentation to the PPCAB on 3/30/98.

2. DOE has not analyzed under NEPA the effects and cumulative impacts of repackaging of plutonium pits in containers that do not meet the same specifications for long term storage and transportation as the AT-400A, yet DOE is proposing to use the AL-R8 sealed insert for long term storage of plutonium pits and not use the AT-400A container. 1

a. "A mechanical line for repackaging pits into AT-400A containers is expected to be operational in FY 1998 which will provide a combined total repackaging maximum capacity of 960 pits per year...At the present time the plans are to close the manual line when the mechanical line becomes operational which will reduce the repackaging output to less than 60 per month." (Conceptual Design Report, Page 9)

b. "A sealed insert has been developed, and is under review for use in storage of pits in AL-R8 containers." (CDR , Page 9)

c. Discussion of alternative storage containers began as early as July 1997 under the context of the AL-2100 working group. The AL-R8 was developed in 1997 and presented as an option to the public in September 1997.

d. DOE and Pantex presented analysis of storage container options to the Pantex Plant Citizens Advisory Board on March 31, 1998. The AL-R8 sealed insert was identified as a preferable container.

FD337

STAND Comment #12, Page 10 of 11

c. In May, 1998, the DNFSB reported that sealed inserts had been selected for certain pit types, and that the AT-400A Manual Line was discontinuing and was being shutdown.

4. DOE is proposing to not upgrade Building 12-66 in Zone 12 for long term storage of surplus plutonium pits and intends to keep plutonium pits in Zone 12 despite considering this an "unacceptable alternative."

a. In December, 1997, the DNFSB reported that DOE was not moving forward with the upgrade of building 12-66.

b. DOE has not informed the public of this decision

c. Pantex is now evaluating Building 12-66 for a new mission of assembling Radioisotope Thermal Generator Mission.

d. In the Conceptual Design Report (CRD) for Building 12-66, DOE and its contractor determined that there were no other acceptable alternatives for either interim or long-term storage of plutonium pits at Pantex. (Pages 10-12). Zone 4 was considered unacceptable for continued storage because "these magazines are not properly equipped with the cooling systems necessary to ensure the pits are maintained at the required temperatures to preserve surplus pits during long term storage." (Page 10). No buildings other than 12-66 "are available or meet the criteria for providing a long term storage function for surplus pits." (Page 10). 1

e. In the Conceptual Design Report, the SD-PEIS is cited as a justification for not reviewing other DOE sites for long-term storage of surplus plutonium (Page 11).

f. The NEPA documentation for Building 12-66 identified the project as being part of the implementation of the SD-PEIS ROD.

g. DOE reported "reviewing" Zone 4 magazines for excess plutonium to the Pantex Plant Citizens Advisory Board on 3/31/98. There are no known NEPA documents identifying continued storage as implementation of any NEPA ROD's.

5. DOE is conducting an Integrated Pit Storage Program Plan (IPSPP) without public input and without NEPA coverage.

a. The IPSPP was presented to the PPCAB on 3/31/98 in the context of evaluating container options, facility options and modification, the surveillance program, and an implementation plan. The Final Draft was scheduled for release by 5/31/98, but remains unfinished. (DNFSB weekly reports).

b. The IPSPP was identified as a work in process as early as January 1997. DOE told the GAO the Final Draft would be completed by 4/30/98.

FD337

c. The IPSPP was first reported as being scheduled for January 30, 1998 (DNFSB weekly report: 1/16/98). A working draft was released that was described by the GAO as "only a preliminary draft" and "mostly in outline format." (GAO, Page 34).

d. DOE internally presented an Integrated Pit Storage Plan briefing in early March (DNFSB Weekly Report for Pantex 3/6/98) 1

e. An IPSPP "Tiger Team" began work in early April 1998 to provide "Pantex input on the DOE-AL IPSPP. Working groups were established to address: [1] packaging; [2] movement, staging, shipping, and receiving; [3] storage; [4] monitoring and surveillance; [5] safeguards/transparency." (DNFSB Weekly Reports for Pantex, 4/3/98, 4/10/98).

Sincerely:

Don Moniak
Program Director
STAND of Amarillo, Inc.

FD337

STANFORD, CLAUDIA
PAGE 1 OF 1

Hello, my name is Claudia Stanford. I live in Amarillo, Texas and I heard on the news that we could comment at this number about our feelings on the possible ability of a plutonium pit disassembly plant being located here at Pantex. And I just wanted to express my feelings that I'm opposed to this and hope that this is placed somewhere else and feel as though it poses too much a threat to the Ogalala Aquifer. And just appreciate the opportunity to be able to express my feelings to you. 1

PD018

PD018–1 **Alternatives**

DOE acknowledges the commentor's opposition to siting the pit conversion facility at Pantex. Section 4.26.3.2 analyzes impacts to the environment (including contamination to the Ogallala aquifer) due to construction and normal operation of a pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based upon 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.

Jim Steiert
Box 95
Hereford, TX 79045

August 19, 1998

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

To the DOE:

I OPPOSE plutonium pit disassembly and conversion at the Pantex Plant at Amarillo. Undemonstrated and unproven technologies are proposed for use. Plutonium at Pantex imperils the precious Ogallala aquifer. Further processing of plutonium at Pantex presents an even greater hazard to groundwater and residents. 1

Pantex has already polluted its site with high explosives in a perched aquifer lying above the Ogallala, not only soiling its property, but adjacent private land as well. 2

Routine emissions of tritium, plutonium, americium, and other deadly compounds can be expected from the smokestacks of any plutonium processing facility at Pantex. Pit disassembly and conversion at Pantex would create unacceptable new hazards.

Pantex has never processed plutonium, and it doesn't have any business starting now. Your own agency's cost estimates place the taxpayer expense of locating plutonium processing at Pantex at $60 million or more.

Despite promises, safety conditions at the Pantex plant haven't improved. Up to 20,000 plutonium pits are heating-up the old bunkers at Pantex. Both the U.S. Government Accounting Office and the Defense Nuclear Facilities Safety Board have been critical of plutonium storage safety at Pantex. Your agency promised that aging munitions bunkers at Pantex were for "temporary" storage of plutonium pits, yet the pits still remain crammed in these aging bunkers in unsuitable storage containers, potentially in an unstable environment. Many of these bunkers began heating-up immediately after pits went into them. Only about three bunkers even have air conditioning. How long is this "temporary" storage going to continue before some disaster occurs? 1

Pantex has neither the size, the equipment, nor the expertise to handle processing of plutonium. We don't need the radioactive contamination in the Texas Panhandle that your agency's presence and activities have already "gifted" Rocky Flats, Colorado, and Hanford, Washington with. **Keep plutonium pit processing OUT of Pantex!**

Thank you for the opportunity to comment.

Sincerely,

Jim Steiert

Jim Steiert
Box 95
Hereford, Texas 79045

MD083

MD083–1 **Alternatives**

DOE acknowledges the commentor's opposition to siting the pit conversion facility at Pantex. It is true that this would be the first consolidated facility for accomplishing surplus plutonium disposition on a large scale. However, the processes are not entirely new; many are in use at LANL and LLNL. DOE has recently started a pit disassembly and conversion demonstration project at LANL, where the processes will be further tested and additional data pertinent to future operations developed. As shown in Section 2.18, Table 2–4 includes a summary of the environmental impacts by alternative. Alternative 5 shows that the impacts associated with operating the pit conversion facility at Pantex would likely be minor. The estimated dose to the public from radiological emissions (e.g., americium, tritium, and plutonium) would be 0.58 person-rem/yr, which would result in an increase of 2.9×10^{-3} LCFs over the 10-year operating life of the facility.

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

Worker exposure estimates attributable to the decision to repackage pits in AL–R8 sealed insert containers were incorporated in the revised Section 2.18 and Appendix L.5.1.

The issues raised in this comment relate to pit storage decisions made in the *Storage and Disposition PEIS* and 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). DOE is considering leaving the repackaged surplus pits in Zone 4 at Pantex for long-term storage. An appropriate environmental review will be conducted when the specific proposal for this change has been developed; addressing, for example, whether additional magazines need to be air-conditioned. The analysis in this SPD EIS assumes that the surplus pits are stored in Zone 12 in accordance with the ROD for the *Storage and Disposition PEIS*.

MD083–2 **Water Resources**

Analyses presented in Sections 2.18 and 4.26.3.2.2, respectively, indicate that there would be no discernible impacts on water quality or to the human health of nearby residents from normal operation of the proposed surplus plutonium disposition facilities at Pantex.

Bob Bullock
Lieutenant Governor of Texas
President, Texas Senate

The Capitol
Austin, Texas 78711-2068
(512) 463-0001

1-800-441-0373
1-800-735-2989 TDD

July 29, 1998

Mr. Bert Stevenson, NEPA Compliance Officer
DOE Office of Fissile Material Disposition
c/o SPE EIS
U.S. Department of Energy
P.O. Box 23786
Washington, DC 20026-3786

Dear Mr. Stevenson:

I have written in the past to express my support for the Pantex Nuclear Weapons Plant in Amarillo as an excellent choice for handling the U.S. Department of Energy's (DOE) surplus plutonium. I would like to take this opportunity to restate my position.

I am referring specifically to the selection of Pantex as the preferred site for locating the plutonium pit disassembly and conversion facility. I am aware that the DOE has selected the Savannah River Site as the preferred site for the MOX fuel fabrication facility and is considering SRS, along with Pantex, as the location for the disassembly and conversion mission. I believe it is in the best interest of Texas and the country that Pantex assume this new function. 1

Pantex has a long history of handling plutonium pits. Unnecessarily transporting classified plutonium pits across the country from Pantex would result in increased exposure to risks and higher costs to taxpayers. Pantex already has the infrastructure and operational protocol in place to ensure that disposition goals are met. Furthermore, the plant enjoys overwhelming public and political support in the community.

Disposition of the nation's surplus plutonium must be accomplished in a manner that protects the health and safety of our citizens and our environment. The Pantex plant has the expertise and is the logical choice for this new mission. Based upon these reasons, I urge DOE to designate Pantex as the site for the pit disassembly and conversion facility.

Sincerely,

BOB BULLOCK
Lieutenant Governor

BB:mhe

cc: The Honorable George W. Bush
The Honorable Teel Bivins
The Honorable Tom Haywood

MD008

MD008–1 **Alternatives**

DOE acknowledges the Lieutenant Governor'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.

TEXAS A&M UNIVERSITY
JOHN M. SWEETEN
PAGE 1 OF 5

JMS/August 11, 1998

REVIEW COMMENTS
SURPLUS PLUTONIUM DISPOSITION
DRAFT ENVIRONMENTAL IMPACT STATEMENT, July, 1998

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 "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=8): Alternatives 1, 4A, 4B, 5A, 5B, 11B, 12C, and 12D . 1

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. 2

So the question really becomes two-fold:
(a) is the presently-proposed suite of technologies adequate to perform the plutonium handling and conversion safely and effectively; and
(b) 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 3

TXD49

TXD49–1 **Alternatives**

DOE presented its preferred alternative for siting the immobilization and MOX facilities in the SPD Draft EIS. However, these are only preferences, not decisions. The only alternatives that have been eliminated at this time are those in which the immobilization facility was proposed for Building 221–F at SRS. It was determined that the amount of space required for the immobilization facility would be significantly larger than originally planned. These new space requirements mean that the annex in Building 221–F would be similar in size and environmental impacts to a new immobilization facility at SRS. Therefore, this SPD EIS only presents the alternatives involving a completely new immobilization facility at SRS. DOE will announce its decision regarding facility siting in the SPD EIS ROD.

TXD49–2 **Alternatives**

DOE acknowledges the commentor's opposition to the No Action Alternative, analysis of which is required under NEPA. Section 2.5 indicates that the No Action Alternative would not satisfy the purpose and need for the proposed action because DOE's disposition decisions in the *Storage and Disposition PEIS* ROD would not be implemented. As indicated in Section 1.6, 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.

TXD49–3 **Human Health Risk**

DOE acknowledges the commentor's conclusion that the surplus plutonium disposition activities could be conducted in an environmentally secure manner.

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 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. 3

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 those 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. 4

In terms of the EIS document itself, my remarks will be restricted to only a few areas at this time.

* Summary, Section S.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. 5

* 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. 6
- Pages 2-4 to 2-7--From the maps, every site except Pantex has at least one river running through or adjacent to it. 7

* 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 producitn practices for any of the candidate sites. If environmental damage were to occur despite safeguards, the public would be 8

TXD49

TXD49–4 **General SPD EIS and NEPA Process**

DOE acknowledges and appreciates the commentor's offer.

TXD49–5 **Socioeconomics**

Appendix J discusses food production analyses for potential radiological doses in counties near each of the candidate sites. Doses received via the ingestion pathways were then used in the dose assessment to the population at each specific site. The potential impacts on prime farmlands are evaluated in the Geology and Soils discussions in Chapter 4 of Volume I. According to the environmental analysis presented in this SPD EIS, neither construction nor normal operation of the proposed facilities should have an impact on the agricultural economy surrounding the candidate sites.

TXD49–6 **Alternatives**

The alternatives cited by the commentor cannot be removed as reasonable alternatives from this SPD EIS because DOE has not yet decided on an alternative for the disposition of surplus plutonium.

The remainder of this comment is addressed in response TXD49–1.

TXD49–7 **Water Resources**

As described in Section 3.4.7.1.1, no streams or rivers flow through Pantex although a number of playas at Pantex hold water after precipitation events. The closest river is the Canadian River 27 km (17 mi) north of Pantex. Although other sites have rivers running through or near them, the analyses presented in Section 4.26 indicate that there would be no discernible impact on surface waters.

TXD49–8 **Socioeconomics**

Appendixes J.1.1.3, J.2.1.3, J.3.1.3, and J.4.1.3 discuss incident-free (normal) releases of radioactivity from the proposed surplus plutonium disposition facilities to the food production chain for each of the candidate sites. The food grid was used in the assessment of doses to the population of each candidate site via the ingestion pathway. However, surplus plutonium disposition activities would be limited to each candidate site boundary and

TEXAS A&M UNIVERSITY
JOHN M. SWEETEN
PAGE 3 OF 5

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. 8

- 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. nonpoint 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 Hansford 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. 9 10

* Chapter 4, Environmental Consequences--The forgoing comments for Chapter 3 generally apply to this chapter as well. 11

- 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 EPA 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. 12

* Appendix F, Impact Assessment Methods, and Appendix G, Air Quality--
- Does not include information for any site concerning 13
  - agricultural production practices
  - accidental releases--explosion, fires, spills, etc.
  - dispersion modeling
  - areas affected
  - redistribution of particulates from Pantex by water or wind erosion. 14

* Appendix I, Socioeconomics

- Does not include discussion concerning agricultural production, land use, or rural residents including whether or not they could be affected. 15

TXD49

should not impact the soil used for agriculture and farming in adjacent regions. Any impacts to the surrounding areas would be within Federal, State, and local regulatory limits. Based on the analysis in this SPD EIS, there should be no impact on the agricultural lands surrounding the sites from the construction or normal operation of the proposed facilities.

TXD49–9 **Socioeconomics**

This comment is addressed in response TXD49–5.

TXD49–10 **Water Resources**

Section 3.4.7.2.1 reflects that Pantex is in Panhandle Groundwater District 3.

TXD49–11 **Socioeconomics**

This comment is addressed in responses TXD49–5, TXD49–8, and TXD49–10.

TXD49–12 **Air Quality and Noise**

DOE acknowledges the commentor's conclusion that air quality, waste management, human health, and water resource impacts at Pantex for Alternative 4A would likely be minor.

TXD49–13 **Socioeconomics**

Although Appendix F and Appendix G do not specifically address agricultural production practices, the potential impact to human health from the consumption of agricultural products is addressed in Appendixes J.1.1.3, J.2.1.3, J.3.1.3, and J.4.1.3. This analysis includes consideration of potential contamination of agricultural products and livestock, and consumption of these products by persons living within an 80 km (50 mi) radius of each of the candidate sites.

TXD49–14 **Facility Accidents**

Appendix F is actually an overview of accident analysis methods. Detailed development of the consequences of hypothesized accidents can be found in Appendix K and a discussion of dispersion modeling and particulate redistribution is included in Appendix J.

TXD49–15 **Socioeconomics**

Land use at Pantex is discussed in Section 4.26.3.5. It was concluded that because the environmental impacts associated with operating or constructing the proposed surplus plutonium disposition facilities at Pantex would likely be minor, there would be little if any impact on the surrounding land.

The remainder of this comment is addressed in response TXD49–13.

* 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 (eg. Texas Agricultural Extension Service), the USDA-Farm Services Agency, etc.. 16

  - 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. 17

The opportunity to reiew and comment on the SPD EIS document is appreciated. I hopw these remarks are useful in strengthening the document and provide the basis for continuing development of greater scientific information regading the environmental quality for Pantex and other sites in other locations also.

Prepared by: John M. Sweeten, Ph.D., P. E., Professor and Resident Director, Texas Agricultural Experiment Station, Texas A & M University Agricultural Research and Extension Center, Amarillo, TX.

TXD49

TXD49–16 **Socioeconomics**

This SPD EIS is tiered from the *Storage and Disposition PEIS*. The agricultural data used to model radiation doses to the public were based on the 1987 U.S. Census of Agriculture for the four candidate sites. These data are not reprinted in this SPD EIS but were made available to the public as a reference to the *Storage and Disposition PEIS*. The reference cited in the *Storage and Disposition PEIS* is *Health Risk Data for Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement* (HNUS, October 1996).

TXD49–17 **Human Health Risk**

DOE acknowledges the commentor's concern that the radiological impact assessments may not take into account doses from plutonium releases; transience considerations; effects on field grain crops, forage, and animals; and contamination pathways other than direct ingestion.

The assessments were performed using the GENII–II computer program, as discussed in Appendix F.10 and expanded on in Appendix J. The source terms in the assessments include the various plutonium isotopes released to the environment. All possible dosage pathways were evaluated: external exposure from finite atmospheric plumes, inhalation, internal exposure from consumption of food and inadvertent intake of soils, and external exposure from contaminated soils. Transience considerations would only marginally affect the results.

It is generally acknowledged that if humans were protected from radiation impacts, other biota would also be protected. Evidence from *Effects of Ionizing Radiation on Plants and Animals at Levels Implied by Current Radiation Protection Standards* (IAEA Technical Report Series 332, 1992) indicates that chronic doses below 0.1 rad/day (36.5 rad/yr) do not harm animals or plant populations. Since doses to humans from all pathways combined would be maintained below 0.1 rem/yr (DOE Order 5400.5), which is less than 0.1 rad/yr, it is highly probable that doses delivered to plants and animals would be less than 0.1 rad/day. Therefore, no radiological damage to plant and animal populations would be expected as the result of surplus plutonium disposition activities.

1998-008937 Aug 3 p 3:44

TEXAS AFL-CIO

1106 LAVACA 512/477-6194 FAX 477-2962 P.O. BOX 12727 AUSTIN, TEXAS 78711

JOE D. GUNN
President

EMMETT SHEPPARD
Secretary-Treasurer

July 30, 1998

Elizabeth Anne Moler
Acting Secretary of Energy
Department of Energy
Forrestal Building
1000 Independence Ave. S.W.
Washington, D.C. 20585

Dear Ms. Moler:

Thank you for the opportunity to comment on the Department of Energy's (DOE) Draft Surplus Plutonium Disposition Environmental Impact Statement (SPDEIS).

I am aware that DOE has selected the Savannah River Site (SRS) as the preferred alternative for the Mixed Oxide Fuel mission and is considering SRS, along with Pantex, as the location for the Pit Disassembly and Conversion mission. I am extremely disappointed in DOE's tentative decision to site the MOX mission at SRS, since Pantex remains the best and most economically feasible site for that mission.

I, now, wish to focus my comments on the selection of Pantex as the preferred site for locating the Pit Disassembly and Conversion mission. Pantex operates within an extremely strict safety envelope, adhering judiciously to "Conduct of Operations" and "Formality of Operations". Pantex currently stores more than 8,000 pits and have handled these items, safely, for over 45 years. This strict operations protocol and it's safety related infrastructure has been carefully maintained and has not been jeopardized as those at other sites where environmental restoration has been and continues to be the primary mission. Furthermore, given the current weapons assembly-disassembly and storage functions at Pantex, disassembly and conversion of the plutonium pits already stored and located there is consistent with the historic 1

FD107

FD107–1 **Alternatives**

DOE acknowledges the commentors' support for 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. 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 -2-
Elizabeth Anne Moler
Acting Sec. of Energy

mission of the plant. Opponents who are opposed to siting disposition missions at Pantex, (SRS in particular), argue that DOE should not introduce plutonium missions at a site where the work could be considered "new" at the location. This argument is false and disingenuous because Plutonium work at Pantx has, is currently and will, in the future, be performed in the areas of Radiation Safety Contingencies, Waste Operations, and Pit Reuse. SRS, itself, is already sited for a "new" type of work - tritium production via an accelerator. If their argument is valid, then DOE has no alternative but to place the tritium mission elsewhere.

Pantex has a well-trained and qualified Union Workforce which is second to none in the nation. This Union Workforce is staffed by three full-time Metal Trades Council Union Safety Officers. No other plant in the nation has anything comparable to this program and it provides the crucial and necessary check and balance if DOE intends to follow former Secretary Pena's Memo on Environment, Safety and Health of April 14, 1998. This Union Safety Officer Program at Pantex has also been called a model for the entire DOE Complex by former Secretary of Energy Federico Pena. The Workforce actively participates in such endeavors as the Voluntary Protection Program, Integrated Safety Management, Seamless Safety-21 Program, and Enhanced Work Planning. Pantex's World Class Security Force, consistently ranked number one in the DOE complex, has, again, won the Secretary's Trophy as the Top Security Force in DOE. These accomplishments by the Pantex workforce do not sound as if they are a bunch of "amateurs" to me as they have been described by members of the South Carolina delegation. When considering the proliferation risks involved in unnecessarily transporting a large number of classified plutonium pits across the country from Pantex, it makes budgetary and policy sense to site disposition missions where storage already exists and is taking place. Pantex is clearly the most cost-effective site over the life of the program than any other site under consideration. Pantex has the necessary safety culture, security and surveillance capabilities to accommodate this expanded role. 1

FD107

Page -3-
Elizabeth Anne Moler
Acting Sec. of Energy

Based upon these reasons, I respectfully urge DOE to designate Pantex as the site for the Pit Disassembly and Conversion Facility. Thank you, in advance, for your consideration. 1

Yours truly,

Joe D. Gunn
President

Emmett Sheppard
Secretary-Treasurer

JDG/ES/vc
opeiu298/afl-cio

cc: The Hon. John Sharp, Texas State Comptroller
The Hon. Al Gore, Vice-President
Frank George, Metal Trades Council of Amarillo

FD107

TEXAS BUILDING AND CONSTRUCTION TRADES COUNCIL
GALE VAN HOY
PAGE 1 OF 2

Thank you for the opportunity to comment on the Department of Energy's actions regarding the location for the disassembly/conversion mission.

The Texas Building and Construction Trades Council is aware that D.O.E. has selected the Savannah River Site as the preferred alternative for the MOX fuel fabrication facility and is considering SRS, along with Pantex, as the location for the disassembly/ conversion mission. We are very disappointed that the DOE decided to locate the MOX facility at SRS, since Pantex remains the best, cleanest, and cheapest site for that mission, and not coincidentally that it is a unionized plant.

Precisely because the Pantex plant has unionized, and therefore highly trained workforce, we are concerned that locating the plutonium pit disassembly and conversion mission at a site other than Pantex would not only increase the hazards of dealing with but would also ignore the facts that make Pantex the site most capable of ensuring that disposition goals are met with the utmost attention to economic and safety considerations. 1

Pantex is already uniquely suited to assume this new function, in spite of comments from some South Carolina politicians. Pantex currently safehouses

TXD41

TXD41–1 **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 (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.

more than 8,000 surplus pits and has a long history of handling pits and related infrastructure in a highly professional fashion that has as its highest goal an excellent safety culture. Furthermore, given the current weapons disassembly and storage functions at Pantex, disassembly and conversion of the pits already located here is consistent with the historic mission of Pantex.

Pantex is ready to go Day One, with a well-trained, unionized workforce—hardly the group of "amateurs" as they have been described.

We believe the Pantex site is best for the above reasons and when one considers the risk factors of moving live weapons clear across the country, we believe that the logical conclusion is that it's cheaper, safer and easier to track converted plutonium pits for IAEA and international inspections at the site of original pit storage. 1

Based upon these reasons, I, as Secretary-Treasurer of the Texas Building and Construction Trades Council, respectfully urge D.O.E. to designate Pantex as the site for the pit disassembly and conversion facility. Thank you for the opportunity to comment of this decision-making process.

TXD41

TEXAS HOUSE OF REPRESENTATIVES
HONORABLE JOHN SMITHEE
PAGE 1 OF 2

John Smithee
State Representative
District 86
Armstrong
Deaf Smith
Oldham
Randall

The State of Texas
House of Representatives
Austin, Texas

Committees:
Insurance
Chairman
Energy Resources

July 31, 1998

DOE Office of Fissile Material Disposition
c/o SPD EIS
U.S. Department of Energy
P.O. Box 23786
Washington, DC 20026-3786
Attn: Mr. Bert Stevenson
NEPA Compliance Officer
Re: Comment on DOE's Draft Surplus Plutonium Disposition Environmental Impact Statement

Dear Mr. Stevenson:

Thank you for the opportunity to comment on the Department of Energy's (DOE) Draft Surplus Plutonium Disposition Environmental Impact Statement (SPD EIS).

Pantex has been a very important part of the Panhandle since the 1940's. Safety and health is a constant concern for any community where radioactive materials are present. I feel that our first priority is to ensure that any expansion at Pantex be conducted in a safe and environmentally sound manner. 1

We are aware that DOE has selected the Savannah River Site as the preferred alternative for the MOX fuel fabrication facility and is considering Savannah River, along with Pantex, as the location for the disassembly/conversion mission. The Amarillo community was very disappointed in DOE's decision to site the MOX facility at Savannah River, since Pantex remains the best and cheapest site for the MOX facility. 2

I do want to focus my comments on the proposed plutonium disposition actions and alternatives discussed by the department on the selection of Pantex as the preferred site for locating the plutonium pit disassembly and conversion facility. There is growing concern that locating the conversion mission at a site other than Pantex would not only increase the hazards of dealing with plutonium, but would also ignore the facts that make Pantex the site most capable of ensuring that disposition goals and economic and safety concerns are meet. 3

Capitol: P.O. Box 2910 • Austin, Texas 78768-2910 • 512-463-0702 • FAX: 512-476-7016
District: P.O. Box 12036 • Amarillo, Texas 79101 • 806-372-3327 • FAX: 806-379-8568

MD010

MD010–1 **DOE Policy**

DOE has and will continue to make health, safety, and environmental issues a matter of utmost importance in the planning and conduct of all nuclear operations, including the disposition of surplus plutonium. This SPD EIS shows that the impact of properly implementing the proposed action at Pantex would have no major effect on the health, safety, and environment in the Amarillo area.

MD010–2 **Alternatives**

DOE acknowledges the Representative's support for siting the MOX facility at Pantex. 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.

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. Because cost issues are beyond the scope of this EIS, this comment has been forwarded to the cost analysis team for response. The cost 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.

MD010–3 **Alternatives**

DOE acknowledges the Representative'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 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.

page 2
State Representative John Smithee
Mr. Bert Stevenson
Department of Energy

Pantex has played a major role in our national defense needs. It is uniquely suited for this new function. The taxpayers have already paid for more than 8,000 surplus pits and trained qualified employees to handle pits and the related infrastructure with and operational protocol that is the mainstay of an excellent safety culture.

There are numerous other matters such as proliferation risk, and the transportation of plutonium that I am not qualified to discuss, but, are very important issue that must be dealt with. I feel that if these matters are addressed with regard to safety, cost, and what is best for the nation, Pantex, is the best site for the disassembly and conversion mission. 3

Again, I want to thank the department for allowing me to voice my concerns and views on this matter, and would respectfully urge DOE to designate Pantex as the site for the pit disassembly and conversion facility.

Yours very truly,

John Smithee

MD010

TEXAS HOUSE OF REPRESENTATIVES
HONORABLE DAVID SWINFORD
PAGE 1 OF 1

ORAL STATEMENT BY STATE REPRESENTATIVE DAVID SWINFORD AT
AUGUST 11, 1998 DOE HEARING ON DRAFT SURPLUS PLUTONIUM
DISPOSITION ENVIRONMENTAL IMPACT STATEMENT

Thank you for the opportunity to comment on the Department of Energy's (DOE) Draft Surplus Plutonium Disposition Environmental Impact Statement (SPD EIS).

I wish to focus my comments on the selection of Pantex as the preferred site for locating the plutonium pit disassembly and conversion facility. I am concerned that locating the conversion mission at a site other than Pantex would not only increase the hazards of dealing with plutonium but would also ignore the facts that make Pantex the site most capable of ensuring that disposition goals are met with the utmost attention to economic and safety considerations.

Pantex is already uniquely suited to assume this new function. Pantex currently safeguards more than 2,000 surplus pits and has a long history of handling pits and the related infrastructure and operational protocol that is the mainstay of an excellent safety culture. Furthermore, given the current weapons disassembly and storage functions at Pantex, disassembly and conversion of the pits already located there is consistent with the historic mission of the plant. Pantex has a production culture with a well-trained workforce - hardly a group of "amateurs" as they have been described by members of the South Carolina congressional delegation. 1

The Pantex plant enjoys tremendous public and bipartisan political support for new missions. To accomplish its disposition goals, DOE must have strong, broad-based political support. Bringing in the support of Texas Senators and Congressmen will help ensure that DOE disposition initiatives succeed.

Based upon these reasons, I respectfully urge DOE to designate Pantex as the site for the pit disassembly and conversion facility. Thank you for the opportunity to comment on the decision-making process.

TXD40

TXD40–1 **Alternatives**

DOE acknowledges the Representative's support for siting the proposed pit conversion facility 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.

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.

This SPD EIS analyzes the potential environmental impacts associated with implementing the proposed activities at the candidate sites. The results of these analyses, presented in Chapter 4 of Volume I and summarized in Section 2.18, demonstrate that the activities would likely have minor impacts at any of those sites, including Pantex. Incident-free (normal) releases of radioactivity from the proposed surplus plutonium disposition facilities to the food production chain are explained for each site in Appendix J. Current and future operations at the candidate sites should not impact the soil used for agriculture and farming in any of the regions adjacent to these sites.

TEXAS RADIATION ADVISORY BOARD
MICHAEL S. FORD
PAGE 1 OF 3

Statement to DOE on PD&C Mission at Pantex/ M. S. Ford
Page 1 of 3
11 August 1998

Good afternoon. My name is Michael Ford and I stand before you wearing two hats today. I making a living as a certified health physicist and radiological engineer at Pantex. However, my primary role here today is to represent the Texas Radiation Advisory Board (TRAB). We advise three agencies within the State of Texas on radiation safety matters: the Bureau of Radiation Control, the Texas Natural Resource Conservation Commission, and the Railroad Commission of Texas. While the TRAB has not taken specific action to endorse the Pit Disassembly and Conversion mission, the TRAB continues to take an interest in Pantex operations. It is anticipated that a vote for endorsement of the PD&C mission at Pantex will be held at the October 3rd, 1998 meeting. Based on my understanding of the position of several members of the Board, I feel that the TRAB would join Governor Bush in supporting the PD&C mission at Pantex. 1

Certain troubling statements by two South Carolina politicians, however, require a clarification of any terms of the support for this facility. Representative Lindsey Graham (R-S. C.) has stated on August 3rd 1998 that "It would be foolhardy to introduce plutonium contamination to a site that isn't already contaminated." And on August 4th, Senator Strom Thurmond of South Carolina indicated that he was willing to use the existing separations canyons — 1950's and 60's technology — to perform the PD&CF mission as a cost savings.

The combined affect of these statements by these politicians indicate that South Carolina is less concerned about embracing the proposed technology — which would confine the plutonium to enclosed processes -- than they are about bringing the work to their state. Unfortunately, it appears that they are prepared to increase the plutonium contamination at Savannah River Site at the expense of the surrounding environmental in order to secure the facility. I firmly believe that I would speak for the Governor and all members of the TRAB when I say that a PD&CF that uses the inefficient and wasteful technologies of the 50's and 60's would be an unacceptable replacement for what is proposed in the SPD EIS. As a TRAB member and a U.S. taxpayer, I find South Carolina's position to be very troubling. 2

TXD45

TXD45–1 **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.

TXD45–2 **DOE Policy**

DOE acknowledges commentor's concern that the surplus plutonium disposition program be carried out in an environmentally safe and efficient manner. The proposed surplus plutonium disposition facilities would be designed, constructed, operated, and deactivated in accordance with applicable Federal, State, and local environmental, safety, and health requirements. Within these limits, DOE believes that the level of contamination should be kept as low as is reasonably achievable, so that the benefit of reducing the already low level of contamination would warrant the additional cost of that reduction. Further, D&D would be necessary wherever the proposed facilities were located. 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.

This SPD EIS does not consider the use of existing canyons for any pit disassembly and conversion activities. For example, the use of F-Canyon at SRS to convert plutonium for use in either the immobilization or MOX facility would require reconfiguring the canyon and keeping it in operation for another 10 years or more. DOE has already made a commitment to the public, the U.S. Congress, and DNFSB to shut the canyon down.

TEXAS RADIATION ADVISORY BOARD
MICHAEL S. FORD
PAGE 2 OF 3

Statement to DOE on PD&C Mission at Pantex/ M. S. Ford
Page 2 of 3
11 August 1998

In reviewing the Cost Analysis (in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition), I noted with interest where the document states in multiple locations that – in both constant 1997 dollars and discounted costs – overall, the costs for the alternatives are approximately the same. However, some clarification would be appreciated in the following areas:

1. It appears that some of the PD&CF needs for SRS are being rolled into the design changes for the APSF (page 3-3) and are not being reflected in the cost estimates.
2. The need for a Source Calibration Facility is not discussed in the SPD EIS and its function is not stated in the Cost Analysis. Instrument calibrations are currently handled by both Pantex personnel and offsite calibration services. 3
3. The initial D&D efforts needed to support construction in currently contaminated facilities is not addressed in any detail. (pg. 1-9).
4. The indirect cost factors were not explained in any detail. It was not clear whether these factors varied by location, and if so, what the basis for the variation was (pg. 1-10).
5. It is unclear as to what additional SNM-processing facilities are required beyond those that the PD&CF provides (pg. 2-3).
6. Zone 4 stores weapons and pits (§ 2.3.3, ¶2).

The costs for repackaging the pits was addressed in the Cost Analysis as $69M for repackaging and $10M to $15M for transportation, but little attention was paid to what impact the repackaging effort might have on Pantex's weapons mission. Over the last five years, Pantex's total collective doses have ranged from 14.6 to 44.9 person-rem with an average of 31 person-rem. In the EIS addressing plutonium storage, it was estimated that approximately 30 person-rem per year would be incurred due to the repackaging of pits in DOT Type B containers. Such an activity would roughly double Pantex's average exposures, and it would triple 1997's collective doses. With the reduction in the dose limits, this could have a noticeable impact on Pantex's weapons mission. 4

TXD45

TXD45–3 **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.

TXD45–4 **Human Health Risk**

Appendix L.5.1 was revised to show that workers at Pantex would receive an additional dose of 10.4 person-rem/year. On the basis of a health risk estimator of 400 fatal cancers per 1 million person-rem (see Appendix F.10.2.1), a dose of 10.4 person-rem translates to an increase of 0.0042 LCF per year. Thus, for a 10-year operational period, the risk of a single additional fatal cancer among the workforce would be less than 1 in 20. While DOE continually evaluates dose limits, there are no current plans to change the existing limits.

Statement to DOE on PD&C Mission at Pantex/ M. S. Ford
Page 3 of 3
11 August 1998

Finally, Pantex personnel have been called "amateurs" with regard to the PD&C mission. Using the word "amateur" does not appear to be consistent with Pantex's role in assembling, disassembling and maintaining some of the most complex weapon systems in the world. While Pantex has not undertaken plutonium processing operations in the past, its record of safely handling both plutonium and high explosives more than demonstrates the competence and capabilities of Pantex personnel to successfully undertake the PD&C mission. 5

Thank you for allowing me to speak on behalf of the TRAB.

Very Respectfully,

Michael S. Ford, CHP
Member
Texas Radiation Advisory Board
1100 West 49th Street
Austin, Texas 78756

TXD45

TXD45–5 **Other**

DOE would not have considered Pantex for the surplus plutonium disposition program if it did not believe that Pantex employees were qualified to perform the work safely and effectively.

TEXAS SENATE
HONORABLE TOM HAYWOOD
PAGE 1 OF 2

TOM HAYWOOD
DISTRICT 30

COMMITTEES:
ECONOMIC DEVELOPMENT
EDUCATION
NATURAL RESOURCES
• SUBCOMMITTEE ON AGRICULTURE, CHAIRMAN
NOMINATIONS

The Senate of
The State of Texas

CAPITOL OFFICE:
P.O. Box 12068
Austin, Texas 78711
512-463-0130
TDD 1-800-735-2988

July 28, 1998

Bert Stevenson, NEPA Compliance Office
DOE Office of Fissile Material Disposition
c/ SPD EIS
US Department of Energy
PO Box 23786
Washington, DC 20026.3786

Dear Mr. Stevenson,

Thank you for the opportunity comment on the Department of Energy's Draft Surplus Plutonium Disposition Environmental Impact Statement (SPD EIS).

Please know that I am adamant that any current and future functions at Pantex be conducted in a safe and environmentally sound manner. My first priority is to ensure that expansion there does not impair the health or safety of area residents, or have an adverse effect on the environment. These goals serve as a prerequisite to any current or future activities at Pantex, which is located within my Texas Senate District. 1

I am aware that DOE has selected the Savannah River Site (SRS) as the preferred alternative for the MOX fuel fabrication facility and is considering SRS, along with Pantex, as the location for the disassembly/conversion mission. I am extremely disappointed in DOE's decision to site the MOX facility at SRS, since Pantex remains the best and cheapest site for that mission. 2

However, of the proposed plutonium disposition actions and alternatives discussed by the department in the SPEIS, I wish to focus my comments on the selection of Pantex as the preferred site for locating the plutonium pit disassembly and conversion facility. I am concerned that locating the conversion mission at a site other than Pantex would not only increase the hazards of dealing with plutonium, but would also ignore the facts that make Pantex the site most capable of ensuring that disposition goals are met with the utmost attention to economic and safety considerations. Pantex is already uniquely suited to assume this new function. Pantex currently storehouses more than 8,000 surplus pits, with a long history of handling pits and the related infrastructure and 3

2525 Kell, Suite 305
Wichita Falls, Texas 76308
940/767-3673

2001 Lockhart Plaza, Suite 286
Sherman, Texas 75090
903/893-2347

1085 East North Twelfth Street
Abilene, Texas 79601
915/672-2435

MD006

MD006–1 **DOE Policy**

DOE has and will continue to make health, safety, and environmental issues a matter of utmost importance in the planning and conduct of all nuclear operations, including the disposition of surplus plutonium. This SPD EIS shows that the impact of properly implementing the proposed action at Pantex would have no major effect on the health, safety, and environment in the Amarillo area.

MD006–2 **Alternatives**

DOE acknowledges the Senator's support for siting the MOX facility at Pantex. 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.

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.

MD006–3 **Alternatives**

DOE acknowledges the Senator'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.

operations protocol that is the mainstay of an excellent safety culture. Furthermore, given the current weapons disassembly and storage functions at Pantex, disassembly and conversion of the pits already located there is consistent with the historic mission of the plan. Opponents of siting disposition functions at Pantex (SRS in particular) argue that DOE should not introduce plutonium missions at a site where the work could be considered "new" at the location. This argument is false and disingenuous. With the new MOX facility, SRS will undertake an NRC licensed function which is completely new to it -- current and future personnel will be required to receive training in an entirely new function. Pantex, on the other hand, has a production culture with a well trained, unionized workforce -- hardly a group of "amateurs" as they have been described by members of the South Carolina delegation. 3

When considering the proliferation risks involved in unnecessarily transporting a large number of classified plutonium pits across the country from Pantex, it makes budgetary and policy sense to site disposition functions where storage already exists. *First*, due to its cheaper labor costs and utility rates, and water and land availability, Pantex clearly is the most cost-effective site over the life of the program than any other site under consideration. *Second*, transportation of plutonium in non-classified form (after disassembly and conversion at Pantex) to the SRS is far preferable to the perils that would be incurred by shipping plutonium in a weapons-ready form. Pantex has the necessary safety, security, and surveillance capabilities to accommodate an expanded role. *Third*, it is in the best interests of the United States to engage Russia in bilateral demilitarization and inspections independent of the politically contentious MOX fuel fabrication process. It will also be far easier to track converted plutonium pits for IAEA and international inspections if these activities are undertaken at the site of original pit storage. 4

The Pantex plant enjoys tremendous public and bipartisan political support for new missions, and could provide them at the lowest additional costs to taxpayers. To accomplish its disposition goals, DOE must have strong, broad-based political support. Bringing in the support of Texas Senators and Congressmen could ensure the success of DOE disposition initiatives. 3

While I do not profess to be a rocket scientist, my doctorate in physics and my 1996 tour of the Pantex facility do provide greater insight.

Based upon these reasons, I respectfully urge DOE to designate Pantex as the site for the pit disassembly and conversion facility. 3

Sincerely,

Tom

TOM HAYWOOD
Texas State Senator

MD006

MD006–4 **Transportation**

DOE has considered the inherent risks, including proliferation concerns, associated with transporting pits versus plutonium dioxide. While DOE prefers to minimize the transportation of plutonium that is still desirable for weapons use, plutonium is routinely and safely transported in the United States. As described in Appendix L.3.3, transportation of nuclear materials would be performed in accordance with all applicable DOT and NRC transportation requirements. Interstate highways would be used, and population centers avoided, to the extent possible.

All shipments of surplus plutonium that have not been converted to a proliferation-resistant form would be made by DOE's SST/SGT system, as described in Appendix L.3.2. 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. By working in parallel with Russia to reduce stockpiles of excess plutonium, the United States can reduce the chance that weapons-usable nuclear material could fall into the hands of terrorists or rogue states and help ensure that nuclear arms reductions will never be reversed.

TEXAS SENATE
HONORABLE JOHN HIRSCHI
PAGE 1 OF 1

John Hirschi
State Representative
District 69

August 17, 1998

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

Dear Department of Energy, Office of Fissile Materials Disposition:

I do not support plutonium processing at the Pantex Plant. In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy prudently decided against locating one plutonium processing facility (MOX fuel fabrication) at the Pantex Plant. For the following additional reasons, a Plutonium Pit Disassembly and Conversion facility also should not be located at Pantex: 1

. Pantex has never processed plutonium. The Pantex Superfund site has so far apparently escaped the type of radioactive contamination found at plutonium processing sites like Rocky Flats in Colorado and Hanford in Washington.

. The Pantex Plant occupies an area that is a fraction of the size of other plutonium sites.

. The technologies proposed in the Plutonium Pit Disassembly and Conversion Facility are undemonstrated and unproven. It is unacceptable to have plutonium operations above the Ogallala Aquifer and only one mile from where people live and work in a vibrant agricultural producing area. The Pantex legacy already includes heavy contamination in a perched layer of groundwater less than one hundred feet above the Ogallala Aquifer. This pollution extends from under the Pantex Plant to adjacent private property and the real impacts remain unknown. The risk of any additional groundwater pollution is unacceptable in an agricultural region. 2

Thank you for this opportunity to comment.

Sincerely,

John Hirschi

John Hirschi
State Representative

Austin Office:
P.O. Box 2910
Austin, Texas 78768-2910
512-463-0534
512-463-8161 (FAX)

Printed on Recycled Paper

District Office
3305 Buchanan
Wichita Falls, Texas 76308
817-691-9160
(FAX) 817-691-4842

MD058

MD058–1 **Alternatives**

DOE acknowledges the Senator's opposition to siting any plutonium processing facilities at Pantex. This SPD EIS analyzes the potential environmental impacts associated with implementing the proposed activities at the candidate sites. The results of these analyses, presented in Chapter 4 of Volume I and summarized in Section 2.18, would likely have minor impacts on any of those sites, including 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.

MD058–2 **Alternatives**

Pit disassembly and conversion technologies are currently being demonstrated at LANL. This activity is described in the *Pit Disassembly and Conversion Demonstration EA* (DOE/EA-1207, August 1998), which is available on the MD Web site at http://www.doe-md.com.

The analyses presented in Section 4.26.3.2.2 indicate that there would be no discernible impacts on water quality from normal operation of the pit conversion and MOX facilities at Pantex. Other sections show, moreover, that the normal operation of these facilities would likely have minor impacts on human health, agriculture, and livestock: Section 4.17.1.4 and 4.17.2.4 addresses the potential radiological and hazardous chemical effects of the maximum-impact alternative on workers and the public; Appendix J.3, the potential contamination of agricultural products and livestock, and the consumption of these products by persons living within an 80-km (50-mi) radius of Pantex.

1998
Texas State Republican Party
Platform
(page 23-24)

The Party recognizes the value of alternative energy sources and supports continued private research and development of such sources; but we oppose the federal government using hazardous waste as an alternative energy source,

such as the processing or reprocessing of plutonium and uranium for making mixed oxide fuels in agricultural areas and above major water sources. 1

by: Richard L. Geddes
8/13/98

SCD19

SCD19–1 **Alternatives**

DOE acknowledges the commentor's support for private research and development of alternative energy sources. The MOX approach does not involve the use of hazardous waste as an alternative energy source. Further, the use of U.S. surplus plutonium does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The 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.

This SPD EIS analyzes the potential environmental impacts associated with implementing the proposed activities at the candidate sites. The results of these analyses, presented in Chapter 4 of Volume I and summarized in Section 2.18, demonstrate that the activities would likely have minor impacts at any of those sites, including Pantex. Incident-free (normal) releases of radioactivity from the proposed surplus plutonium disposition facilities to the food production chain are explained for each site in Appendix J. Current and future operations at the candidate sites should not impact the soil used for agriculture and farming in any of the regions adjacent to these sites.

furthermore, public money or public powers should not be used to fund or implement any private projects such as high-speed rail or sports stadiums.

Balanced Budget - The Party supports full disclosure of all "on" and "off" budget spending. We demand that our federal legislators vote only for balanced budgets. Social Security should be taken off budget. In case of a budget surplus it should never be used to increase spending.

Waste and Fraud in Government Contracts - The Party is opposed to waste and fraud in government contracts and recommends that the Attorney General of the United States investigate fraud and misuse of government funds in government contracts prosecuting those found to be responsible. The Party also believes that all government contracts should be awarded only on the merits of the bidders' ability to produce the quality of the product or service performed at a reasonable cost. We also support the repeal of the Davis Bacon Act. We encourage the government to follow fair business practices.

Business Subsidies - The Party urges the cessation of subsidies. We support movement toward a free market economy both domestically and internationally.

Downsizing the Federal Government - We support the downsizing of the federal government in order to reestablish states' rights guaranteed by the Tenth Amendment of the United States Constitution. We further support the abolition of federal agencies involved in activities not delegated to the federal government under the original intent of the Constitution including, but not limited to, the Environmental Protection Agency, the Department of Energy, the Department of Housing and Urban Development, 'the Department of Health and Human Services, the Bureau of Alcohol, Tobacco and Firearms, the Department of Education, and the position of Surgeon General. These authorities should be eliminated or, where needed, transferred to the state or local governments. We also call for the defunding and abolition of the National Endowment for the Arts.

Sunset Laws - The Party supports a mandatory Sunset Law for the state of Texas which would automatically terminate all agencies or programs if they are not reenacted by the legislature every twelve years.

Unfunded Mandates - The Party favors limited government and no new taxes. The effect of mandating services without funding is a tax increase for local government. We oppose all unfunded mandates by the federal and state governments.

Domestic Energy Industry

Support of the Domestic Energy Industry - The foundation of our National Energy Strategy must be a competitive domestic oil and gas industry. Federal tax and regulatory policies are destroying the independent sector of this industry. Regulation and rule making must be done on a cooperative, rather than an adversarial basis, preserving jobs and the economy while promoting environmental preservation. The Party encourages the U.S. Congress to (1) aggressively support a greatly expanded use of domestic natural gas as a method to reduce U.S. dependence on foreign crude oil; (2) repeal all provisions of the alternative minimum tax that treat intangible drilling costs as tax preference items; and (3) stop the promulgation of unnecessary environmental legislation or regulation that causes domestic production to be economically not feasible.

Alternative Energy Sources - The Party recognizes the value of alternative energy sources and supports continued private research and development of such sources; but we oppose the federal

government using hazardous waste as an alternative energy source, such as the processing and or reprocessing of plutonium and uranium for making mixed oxide fuels in agricultural areas and above major water sources.

Restructuring Electrical Utilities - The electric services industry in Texas should be restructured. The Party believes the state of Texas instead of the federal government should restructure the electric service industry in Texas. We support deregulation with real competition.

Restoring American Sovereignty and Leadership

Immigration - The Party acknowledges that America is a beacon of hope and a place of new beginnings and we continue to welcome legal immigrants. Because we believe that one responsibility of government is to secure our nation's borders, we support: 1) returning immigration quotas to traditional levels in practice prior to 1965 of 300,000 per year or less, 2) expeditious hearing on deporting non-violent illegal aliens held in prisons or jails, 3) reclaiming control of international borders, 4) screening immigrants for communicable diseases, including HIV, 5)the amendment of the Immigration and Naturalization Act of 1952 to grant birthright citizenship only to the newborn of citizens of the United States of America or permanent legal residents, and 6) Congressional oversight of federal agencies to follow-up over-stayed visas.

The Party opposes: 1) automatic citizenship by birth to children born to illegal aliens, 2) federally-imposed requirements on the state regarding the care of illegal aliens including the extension to illegal aliens the benefits of public education, non-emergency medical care, and welfare including Social Security and SSI payments, 3) a national tracking system for control of immigration (or any other purpose), and 4) participation in any election by illegal aliens.

International Communism - The Party supports the worldwide movement away from Communism and toward representative government based on the premise that men' s and women's rights come from God and governments are established to protect these rights.

MIA's and POW's - The Party urges the President and Congress to continue all measures necessary to seek and act upon all information concerning our Missing in Action and Prisoners of War. We oppose the extension of MFN status or normalizing relations with any nation before they support a full and complete accounting for all missing American service personnel.

Middle East - The Party believes that the U.S. and Israel share a special long-standing relationship based on shared values, a mutual commitment to our republican form of government, and a strategic alliance that benefits both nations. Our foreign policy in the Middle East should reflect the special nature of this relationship through continued military and economic assistance to Israel and recognition that Jerusalem is the capital of Israel and should remain an undivided city accessible to people of all faiths. We commend the Republican Congress' resolution to move the U.S. embassy from Tel Aviv to Israel's capital, Jerusalem. We commend Israel's privatization of state-owned companies and budget cuts in order to achieve its goal of economic independence. We encourage the Republican Congress' continuing support for Prime Minister Netanyahu's government in the peace talks between Israel and the Palestinians. We oppose pressuring Israel to make concessions it believes would jeopardize its security. We support continued sanctions against Iran in response to its celebration of "Death to America Day."

SCD19

THE CENTER FOR LEGAL AND SOCIAL JUSTICE
TADEO SPIKE ZYWISKI
PAGE 1 OF 3

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

Dear Department of Energy, Office of Fissile Materials Disposition:

I do not support plutonium processing at the Pantex Plant. In the *Surplus Plutonium Disposition Draft Environmental Impact Statement*, the Department of Energy prudently decided against locating one plutonium processing facility (MOX fuel fabrication) at the Pantex Plant. For the following additional reasons, a Plutonium Pit Disassembly and Conversion facility also should not be located at Pantex: 1

Pantex Should Not Become the Next Rocky Flats

Pantex has never processed plutonium. The Pantex Superfund site has so far apparently escaped the type of radioactive contamination found at plutonium processing sites like Rocky Flats in Colorado and Hanford in Washington.

Risks That Are Unknown Are Too High

The Pantex Plant occupies an area that is a fraction of the size of other plutonium sites.

SIZE MATTERS: A Comparison of the Area of the Four Candidate Sites (Square Miles)			
Pantex	Savannah River Site	Idaho National Engineering Lab.	Hanford
23	309	890	560

2

The technologies proposed in the Plutonium Pit Disassembly and Conversion Facility are undemonstrated and unproven. It is unacceptable to have plutonium operations above the Ogallala Aquifer and only one mile from where people live and work in a vibrant agricultural producing area. The Pantex legacy already includes heavy contamination in a perched layer of groundwater less than one hundred feet above the Ogallala Aquifer. This pollution extends from under the Pantex Plant to adjacent private property and the real impacts remain unknown. The risk of any additional groundwater pollution is unacceptable in an agricultural region.

Common sense dictates that negative consequences to people and farmland from nuclear accidents are far more likely in a small, open, windy location like Pantex. The Department of Energy has acknowledged that the most visually unappealing feature of the plutonium facilities will be their smokestacks. Visual blight will be a minor inconvenience compared to the air pollutants--many of them radioactive--expected to escape into the atmosphere daily through smokestack filters. Routine air emissions of tritium, plutonium, americium, and beryllium constitute unacceptable new hazards to the Texas Panhandle. 3

MD107

MD107–1 **Alternatives**

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Pantex. As described in Chapter 4 of Volume I and summarized in Section 2.18, potential impacts of any of the proposed activities during routine operations at any of the candidate sites would likely be minor. To avoid contamination that has occurred in the past at some DOE sites, DOE would design, build, and operate the proposed facilities in compliance with today's strict environmental, safety, and health requirements. 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.

MD107–2 **Human Health Risk**

Although Pantex is smaller in overall size in comparison with the other candidate sites, 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 (e.g., see Section 4.6).

While it is true that the pit conversion facility is the first consolidated facility for accomplishing this mission on a large scale, the processes that would be used in this facility are not entirely new. Many of these processes are in use at LANL and LLNL. In addition, DOE has recently started a pit disassembly and conversion demonstration project at LANL, where processes will be further developed and tested.

Section 4.26.3.2 analyzes impacts to the environment (including contamination to the Ogallala aquifer) due to construction and normal operation of a pit conversion facility at Pantex. 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. Appendix J.3 includes an analysis of potential contamination of agricultural products and livestock and consumption of these products by persons living within an

80-km (50-mi) radius of Pantex. 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. This analysis indicates that impacts of operating the pit conversion facility on agricultural products, livestock, and human health at Pantex would likely be minor.

MD107–3 **Human Health Risk**

It is DOE policy to operate in compliance with all applicable air quality requirements and to protect human health and the environment. DOE takes into consideration pollution reduction techniques to minimize air releases when designing, constructing, and operating its facilities. It also considers aesthetic and scenic resources in the design, location, construction, and operation of facilities. Potential concentrations of air pollutants at Pantex for the various alternatives have been estimated, considering appropriate local meteorology and other data associated with the area. Because the releases from the pit conversion and MOX facilities would be very small (see Appendix J.3.1.4), estimates of resultant radiological health risks are small. As indicated in Section 4.17.2.4, the maximum possible dose delivered to a member of the public during normal operations of the MOX and pit conversion facilities at Pantex would be 0.077 mrem/yr, 0.02 percent of the dose that individual would receive annually from natural background radiation. The estimated dose to the public from radiological emissions (e.g., americium, tritium, and plutonium) would be 0.58 person-rem/yr which would result in an increase of 2.9×10^{-3} LCFs over the 10-year operating life of the pit conversion facility. Any new facilities that might be built would be within existing site boundaries, and would be matched aesthetically with the current plant to limit potential visual impacts.

THE CENTER FOR LEGAL AND SOCIAL JUSTICE
TADEO SPIKE ZYWISKI
PAGE 3 OF 3

There is Valid, Strong Criticism of Safety in the Storage of Plutonium at Pantex

Since Pantex became the nation's long-term storage location for up to 20,000 plutonium pits, promises to improve safety conditions have not happened. The U.S. Government Accounting Office and the Defense Nuclear Facilities Safety Board have issued reports critical of plutonium storage safety at Pantex. Fifty million taxpayer dollars were spent on a failed plutonium pit container program (the AT-400A) and the plan to move over 10,000 pits into a safer remodeled building (Building 12-66) has also failed.

When it comes to plutonium pit storage problems, Panhandle residents are back to square one. The plutonium remains in old, unsuitable, corroding storage containers and in 35-55 year old "bunkers" that the Department of Energy promised were for "temporary" use. Plutonium that is supposed to be stored in a stable environment now sits in the bunkers--all but three without air conditioning--even as the Texas Panhandle experiences a spell of more than 40 consecutive days of 90+ degree temperatures, and more than 20 days this summer with thermometers registering 100+ degrees. If the Department of Energy cannot accomplish the job of safely storing Pantex plutonium in the most stable environment, there is no reason to accept its unsubstantiated assurances to safely process deadly plutonium powders at Pantex. 4

Thank you for this opportunity to comment.

Sincerely: August 14/1998

To Whom it may concern!
Advances in technology Verses
repression of Wisdom provides the signal to
Emphasize Wisdom hold fast on what we
have of technology. 5
When balanced restart technology
Sincerely
Tadeo Spike Zywiski
213 Avant Ave
San Antonio TX 78210

MD107

MD107–4 **DOE Policy**

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

Worker exposure estimates attributable to the decision to repackage pits in AL–R8 sealed insert containers were incorporated in the revised Section 2.18 and Appendix L.5.1.

The issues raised in this comment relate to pit storage decisions made in the *Storage and Disposition PEIS* and 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). DOE is considering leaving the repackaged surplus pits in Zone 4 at Pantex for long-term storage. An appropriate environmental review will be conducted when the specific proposal for this change has been developed; addressing, for example, whether additional magazines need to be air-conditioned. The analysis in this SPD EIS assumes that the surplus pits are stored in Zone 12 in accordance with the ROD for the *Storage and Disposition PEIS*.

MD107–5 **Other**

DOE acknowledges the commentor's concern that technology advances must be met with caution.

THE METAL TRADES COUNCIL
of
Amarillo, Texas and Vicinity
A.F. of L. - C.I.O.
AMARILLO, TEXAS

DOE Office of Fissile Materials Disposition
c/o SPD EIS
P.O. Box 23786
Wasington, D.C. 20026-3786

SUBJECT: SURPLUS PLUTONIUM DISPOSITON DRAFT EIS

MD186

THE METAL TRADES COUNCIL OF AMARILLO, TEXAS AND VICINITY
RONALD W. ZERM
PAGE 2 OF 3

As a Metal Trades Union Safety Officer, I would like to comment on this proposed EIS. Having both mechanical and safety backgrounds, I feel I can comment both on the proposed processes and the safety envelope within which these processes are to function.

In commenting on the processes, I would first comment on the Mixed Oxide Fuel Facility. The MOX process is, primarily, a mechanical process accomplished in glove boxes. Pantex already possesses parallel processes which are similarly found in a MOX plant. We blend materials, press these materials into pellets, weigh them, perform non-destructive inspection on them, heat (or scinter) them, and assemble the final product. We have been performing these processes for over 45 years. And we are actively performing these same processes today. Having had the opportunity to visit actual MOX plants in England and France, I can state with confidence that Pantex can perform this part of the EIS mission in an unparalleled manner. .

In addressing the Pit Disassembly and Conversion Facility, it is important to keep in mind that the Aries System is a mechanical disassembly system. I have toured the Aries

system at Los Alamos and have seen no potential problems with its being sited here at Pantex. Pantex has, as I have already stated above, safely handled the items, slated for disassembly and conversion, for over 45 years and we currently store over 10,000 of them. 1

A major factor in siting these missions atPantex is a well-trained and qualified Union Workforce, which is second to none in the country. This workforce actively participates in such endeavors as Voluntary Protection Program, Integrated Safety Management, Seamless Safety - 21 Program, and Enhanced Workplanning. All pro-active programs and all needed if the DOE intends to follow Former Secretary of Energy Pena's memo on Environment, Safety and Health of April 14, 1998. In addition, the one program which Pantex has which sets it apart from all other plants is the Metal Trades Union Safety Officer Program, which is staffed by three full-time Union Safety Officers. No other plant in the nation has anything comparable to this program and it provides the crucial and necessary check and balance needed by the DOE to maintain and further ES&H credibility with the nation.

Siting these two missions at Pantex is the most logical choice. Pantex is an "active" site, observing strict operational protocols. The safety infrastructure at Pantex has not been compromised "as at other sites" due to their "primary" mission being environmental remediation/restoration. It is of extreme importance to place these activities at a site where an **established** and **successful** Conduct of Operations / Formality of Operations philosophy is already in existence and utilized day to day.

MD186

MD186–1 **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.

The DOE Pantex Plant should be the choice for these future PU EIS missions.

Sincerely,

Ronald W. Zerm

Metal Trades Union Safety Officer

MD186

U.S. Army
Stacy R. Rusk
Page 1 of 1

I support Pantex. | 1

WD017

WD017–1 **Alternatives**

DOE acknowledges the commentor's support for 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

UNDERWOOD, WILSON, BERRY, STEIN & JOHNSON, P.C.
A PROFESSIONAL CORPORATION
ATTORNEYS AND COUNSELLORS AT LAW
1500 AMARILLO NATIONAL BANK BUILDING
P. O. BOX 9158
AMARILLO, TEXAS 79105-9158
TELEPHONE (806) 376-5613
FAX (806) 373-0316
OF COUNSEL:
CLIFFORD A. STEIN
WINSTON A. SMITH
EDWARD H. MILL

WRITER'S DIRECT DIAL:
(806) 373-0384

August 12, 1998

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

VIA FAX ONLY
1-800-820-5156

Dear Ladies and Gentlemen:

As a resident of Amarillo, Texas, I encourage you to choose the Amarillo Pantex plant as the location for the disassembly and conversion of nuclear weapons plutonium components.

While I was unable to attend your hearings in Amarillo on Tuesday, August 11, 1998, I wanted to take this opportunity to encourage you to select the Amarillo Pantex plant. I presume that you have information concerning the important role that Pantex plays in the Amarillo community. I hope you are also aware of the appreciation and support of local residents. Further, Pantex's track record in the handling of plutonium pits speaks for itself and makes it the natural and best choice for the project. 1

In conclusion, I would again urge you to select the Amarillo Pantex plant for the disassembly and conversion of nuclear weapons plutonium components.

Sincerely,

James W. Wester

JWW/tb

FD242

FD242–1 **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.

WHALEY, JAN
PAGE 1 OF 1

3224 Janet, #106
Amarillo, TX 79109
August 11, 1998

United States Department of Energy
Washington, D.C.

Re: PIT DISASSEMBLY AND CONVERSION FACILITY

Dear Sirs:

I would like to take this opportunity to express my support for the Pit Disassembly and Conversion Facility to be located at the Pantex Plant in Amarillo.

As a taxpayer, I believe it only makes sense to locate the facility in close proximity to the pits. To me, it would be total nonsense to transport the pits to Savannah River when there is a facility here that could competently handle the project. Not only does it make economical sense, but from a safety standpoint it only makes sense to leave the pits in one location.

I believe the entire production and maintenance workforce (labor and management), which includes a world class security/protective force, is second to none. In my opinion, Pantexans have demonstrated that we are, without a doubt, the best in the entire DOE complex. Pantex operates within a stringent safety envelope, and has a safety record which speaks for itself. We currently house and store more than 10,000 plutonium pits and we have safely handled and worked with pits and other hazardous items for more than 45 years. 1

When you weigh all of the above factors and add to it the tremendous community support offered the Pantex Plant, I see no other logical conclusion. I trust that you will come to the same conclusion.

Sincerely,

Jan Whaley

Jan Whaley

TXD19

TXD19–1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Potential impacts from transportation of pits would likely be minor if Pantex were chosen as the site for pit disassembly and conversion because pits are currently stored there, while potential impacts from transportation of plutonium dioxide would likely be minor if SRS were chosen because SRS is the preferred location for the MOX facility. 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.

Yes, my name is Carolyn Wheeler. I live in Whitedeer, Texas, close to Pantex and I am very interested in seeing the work come to Pantex rather than Savannah River. I believe that Pantex could do it very safely and very efficiently. Thank you very much. 1

PD017

PD017–1 **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.

WOLFE, BILL K.
PAGE 1 OF 1

August 10, 1998

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

I support the disassembly and conversion of nuclear weapons plutonium pits at the Amarillo Pantex plant.

The work force of Amarillo and the Texas Panhandle has exceptionally good work ethics. The productivity and safety records of our people is outstanding.

The fact that there is no major contamination at the Pantex plant speaks very highly of both the plant management and its work force. There is no reason to believe that conversion of the pits would cause any additional contamination here and every reason to believe it would make a bad situation worse at any of the other possible locations. 1

Most people in and around Amarillo also support Pantex and its missions completely.

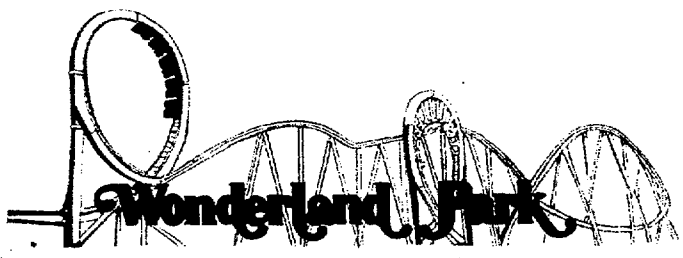
Sincerely,

Bill K. Wolfe
7805 Lindsey Lane
Amarillo, Tx. 79121
Fax 806 358-9233

FD058

FD058–1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. This SPD EIS analyzes impacts of the environment from construction and normal operation of the pit conversion facility. This facility would be located in a new building at either Pantex or SRS and, regardless of the site location, would generate the same level of contamination and require the same amount of D&D. 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.



11 August 1998

U.S. Department of Energy
Office of Fissile Material Disposition
MD-4 Forrestal Bldg.
1000 Independence Ave. SW
Washington, D.C. 20585

Ladies & Gentlemen:

As President and General Manager of Wonderland Amusements, Inc., I wish to express my support for the disassembly and conversion of nuclear weapon "pits" here in Amarillo at the Pantex Plant.

We employ job-entry youth on a seasonal basis and have over 47 years experience with their work ethics and performance. As future employees to our service and manufacturing industries, we feel that this area has an excellent workforce that is responsible, sensible, ethically sound, and desirous to perform work that is necessary and beneficial. I think this workforce has been beneficial to Pantex as the past performance and safety record of the plant are very good. 1

I feel that we have the best location to do the necessary job. Why not disassemble, store, and re-manufacture in one location, rather than transport and potentially expose a greater area of our country? Our area has been a source of energy for many years. As new forms become available, we would like to continue to be a source for the future.

Just as I am continually involved in safety, I am aware and feel that the employees of Pantex want the same safe place to work and live as do our area residents.

Respectfully,
Paul D. Borchardt

P.O. BOX 2325 • AMARILLO, TEXAS 79105-2325
IN THOMPSON PARK • HWY. 287 N. • (806) 383-0832 • FAX 383-8737
http://www.wonderlandpark.com/

TXD46

TXD46–1 **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 transportation), 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.