

KLINE, CONNIE, WILLOUGHBY HILLS, OH
PAGE 1 OF 1

Date Received: 06/12/96
 Comment ID: P0052
 Name: Connie Kline
 Address: 38531 Dodds Landing Drive
 Willoughby Hills, Ohio 44094

Transcription:

Yes, my name is Connie Kline. Phone and fax are (216) 946-9012. Another dedicated fax line is (216) 663-4177. I have very little information on this proposed DOE plan to use fissile materials apparently in commercial reactors. I would like if possible, if there is something fairly short, that could be faxed to either of those numbers that I gave or, my address is 38531 Dodds Landing Drive, Willoughby Hills, Ohio 44094. As it stands now, what I have read about the Programmatic Environmental Impact Statement regarding this fissile material being used in commercial reactors, I am opposed to it based on what I have read so far. But I certainly would be very interested in receiving either by fax or by mail some additional information as I have been able to get my hands on very little information about this. Thank you.

1/08.03.01

2/08.02.00

P-052

08 03 01 Comment Number 1

The Department of Energy acknowledges the commentor's opposition to the Reactor Alternatives. However, NEPA requires that DOE look at all reasonable alternatives and, therefore, reactor burning must be considered. Decisions on the disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 02 00 Comment Number 2

The Department of Energy uses a wide variety of methods to communicate with the public on these important issues. These methods include public meetings, as part of the NEPA process, and meetings outside of the process, such as the Plutonium Round Table. Numerous fact sheets and displays are made available at the meetings as well as by mail. All of this information is available on the Program's electronic bulletin board.

STACY KNIGHT

I strongly support the continuation of the high explosive function at the Pantex facility. I oppose any effort to move these functions to the national labs. Pantex is the most cost effective DOE facility and has an excellent track record in doing the high explosive functions.

- I believe that Pantex should be chosen as the location for fissile materials storage and disposition functions. Pantex already stores surplus plutonium and has a safety and security record that is unmatched in the DOE complex. When given fair budget consideration, strong local support and national security interest, Pantex is the ideal choice for this function of fissile materials storage and disposition.

1/08.03.01

QUESTIONS:

- Please explain why the Lawrence Livermore National Laboratory and the Los Alamos National Laboratory stockpile management budgets show projected increases from 1996 to 2004, since the U.S. has terminated development of nuclear weapons.
- Are these projected increases in the stockpile management at the two labs based on transferring of missions to them which have previously been done at the production plants?

TX-047

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's support of Pantex. Decisions related to future missions at Pantex will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

KOEBERL, DWIGHT D., SEATTLE, WA
PAGE 1 OF 1

Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic
Environmental Impact Statement (PEIS) Public Comment Form

Name (optional): Dwight D. Koerber
Address (optional): 2070 Alway St
Seattle, WA 98117

Please write down your comments and drop this form in the marked boxes before you leave tonight. These forms will be submitted to the Department of Energy as part of the formal comment on this PEIS. If you are unable to complete this form tonight, written comments can be mailed to:

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

or, you can call this toll-free number to leave comments by phone: 1-800-820-5156. Comments must be submitted by May 7, 1996.

The Department of Energy has identified three types of technologies as options for disposing of weapons-usable fissile materials. The Department has also considered a "no action alternative" which would result in long-term storage of these materials. Please write down your comments on the following three types of options for disposal and the storage option.

1. Materials Immobilization/Vitrification - Immobilize fissile materials by mixing them with glass, glass bonded zeolites, or ceramics.

This option seems preferable, because it
allows disposal of plutonium in an unusable
form. Disposal in a form not suitable for
weapons use is the best option. | 1/08.03.01

2. Deep borehole disposal - Materials would be disposed in boreholes at least 2.5 miles deep, in geologically stable formations. Materials could be disposed directly into the deep borehole, or materials could be immobilized first, and then deposited into the deep borehole.

Only preferable if immobilized first. | 1/08.03.01
cont.

3. Reactor Options - Surplus plutonium/highly enriched uranium would be made into MOX fuel for use in nuclear reactors, destroying by fission a major portion of the weapons grade materials.

Very objectionable because of the wastes generated. | 2/08.03.01

4. Storage Options - USDOE would continue existing storage practices for weapons-usable fissile materials at current locations and/or consolidate that storage at one or more of the designated sites.

The material should be made in appropriate for
use in bombs. | 3/01.02.00

M-223

08 03 01 Comment Number 1

The Department of Energy acknowledges the commentator's support for the Vitrification Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01 Comment Number 2

The Department of Energy acknowledges the commentator's opposition to the Reactor Alternatives. However, NEPA requires that DOE look at all reasonable alternatives and, therefore, reactor burning must be considered. Decisions on the disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

01 02 00 Comment Number 3

The Department of Energy's proposed storage action includes non-surplus weapons-usable fissile materials to support national defense and surplus Pu pending disposition. The surplus Pu would ultimately be converted into a form that would make it difficult to extract and reuse to make weapons.

Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic
 Environmental Impact Statement (PEIS) Public Comment Form

Name (optional): Michael Korth
 Address (optional): 536 S. 7th St
West Richland WA

Please write down your comments and drop this form in the marked boxes before you leave tonight. These forms will be submitted to the Department of Energy as part of the formal comment on this PEIS. If you are unable to complete this form tonight, written comments can be mailed to:

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

or, you can call this toll-free number to leave comments by phone: 1-800-820-5156. Comments must be submitted by May 7, 1996.

The Department of Energy has identified three types of technologies as options for disposing of weapons-usable fissile materials. The Department has also considered a "no action alternative" which would result in long-term storage of these materials. Please write down your comments on the following three types of options for disposal and the storage option.

1. Materials Immobilization/Vitrification - Immobilize fissile materials by mixing them with glass, glass bonded zeolites, or ceramics.

OK

2. Deep borehole disposal - Materials would be disposed in boreholes at least 2.5 miles deep, in geologically stable formations. Materials could be disposed directly into the deep borehole, or materials could be immobilized first, and then deposited into the deep borehole.

Not attractive option - impossible to secure over
a long 250 k years

1/08.03.01

3. Reactor Options - Surplus plutonium/highly enriched uranium would be made into MOX fuel for use in nuclear reactors, destroying by fission a major portion of the weapons grade materials.

Take Japanese as being denied with it
Best at least to store
at least to prevent the same as 25 k years

2/08.03.01

4. Storage Options - USDOE would continue existing storage practices for weapons-usable fissile materials at current locations and/or consolidate that storage at one or more of the designated sites.

OK

M-230

08 03 01

Comment Number 1

The Department of Energy recognizes the commentor's concern with the Borehole Alternatives. Decisions on the disposition alternatives will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01

Comment Number 2

The Department of Energy acknowledges the commentor's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

Please use this space to write down any additional comments on the Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statement.

Shipping at 250 K grams
 either in a non-pressurized container
 (Cost for 24,000 containers only)

or
 delivery site shipping per
 security concerns (weapons grade) plan

and
 costs in dollars for shipping, storage
 become prohibitive

3/08.03.01

4/07.00.00

M-230

08 03 01 Comment Number 3

The Department of Energy acknowledges the commentator's opposition to long-term storage. Decisions on storage of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

07 00 00 Comment Number 4

Cost data, along with technical and schedule data, was provided in a Technical Summary Report for storage in late July 1996.

08 03 01

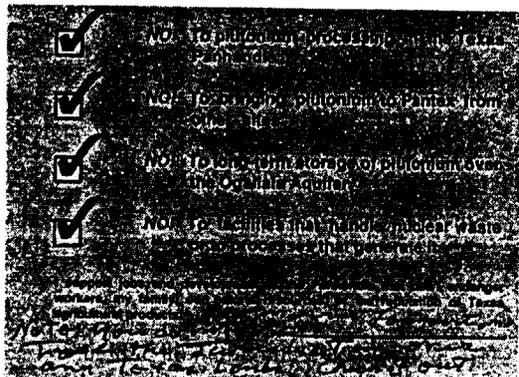
Comment Number 1

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

April 3, 1996
Dear L. O. E. :
Please don't increase storage of plutonium at Pantex — or do anything else that will further spoil our area. The general public is against any continuation or expansion of nuclear contamination. Don't listen to the local greedy businessmen who will destroy the Panhandle area of Texas for money. They don't speak for the majority.
Mrs. Leo Laborde

1/08.03.01

PC-002



1/08.03.01

2/08.03.01

3/09.01.04

PC-182

08 03 01 Comment Number 1

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

08 03 01 Comment Number 2

Comment noted.

09 01 04 Comment Number 3

Pantex was originally built for the U.S. Army during the early days of World War II with the mission of producing conventional munitions. After the war, the facilities were deactivated and lay vacant until 1949 when Texas Technological College (now Texas Tech University) purchased the site for \$1.00. In 1951, the AEC (predecessor of DOE) asked the Army to reclaim the main plant and surrounding land under the recapture clause of the sale agreement, and the land area was subsequently transferred to the AEC.

Pantex operational activities are presently situated within 6,030 ha (14,900 acres) of land, of which approximately 3,683 ha (9,100 acres) are owned by the Federal Government and the remaining 2,347 ha (5,800 acres) are leased from Texas Tech University primarily to provide a safety and security buffer zone. All owned and leased buildings on the site are administered, managed, and controlled by DOE. DOE owns an additional remote tract of 436 ha (1,077 acres) of undeveloped land at Pantex Lake located approximately 4 km (2.5 mi) northeast of the main plant site. This property is held by DOE to retain the water rights. Total Pantex land area equals 6,466 ha (15,977 acres). The potential location of all storage and disposition alternatives at Pantex would be situated on land area owned by the Federal Government.

LANCASTER, COLLEEN, BRENTWOOD, TN
PAGE 1 OF 1

June 6, 1996

U.S. Department of Energy
Office of Fissile Materials
Forrestal Building
1000 Independence Ave., S.W.
Washington, D.C. 20585

Dear Department of Energy,

Thank-you for allowing me to comment on the Storage and Disposition of Weapons-Usable Fissile Materials Draft Environmental Impact Statement.

My preferred alternative for Long-Term Storage is:

Consolidate all Pu material at One Site Using Upgraded and/or New Facility; HEU Remains at ORR.

My preferred alternative for Plutonium Disposition is:
Immobilization by Electrometallurgical Treatment.

Thank-you once again.

Sincerely,



Colleen Lancaster

801 Davis DR
Brentwood, TN 37027

1/08.03.01

2/08.03.01

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's support for the Consolidation Alternative. Decisions on the storage of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01

Comment Number 2

The Department of Energy acknowledges the commentor's support for the Electrometallurgical Treatment Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, existing agreements, and public input.

F-048

LANGER, SIDNEY, SAN DIEGO, CA
PAGE 1 OF 2

Sidney Langer

May 05, 1996

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

Dear Sirs:

I believe there is a serious omission in the Draft Programmatic Environmental Impact Statement on the Storage and Disposition of Weapons-Usable Fissile Materials (Storage and Disposition PEIS). I have reviewed the three volumes and Summary documents of the PEIS and find no discussion of an important consideration in evaluating the various options:

The plans of other nuclear power nations for disposition of their civil and weapons-grade plutonium.

It makes no sense for the United States to adopt a preferred option in isolation from the world community. While such a selection may well be the safest, most environmentally benign, and most cost-effective method for the United States to dispose of its own excess weapons plutonium, the potential adverse global impacts of plutonium availability may be enhanced by the U.S. selection of an option which differs from the selections of most other nations.

As an example of how U.S. policy can adversely impact global issues, consider the question of nuclear fuel reprocessing. It could easily be argued that world-wide availability of civil (and perhaps all) plutonium would be under far better international controls than it is today if the U.S. had joined with other nations twenty years ago in developing mechanisms for controlling and using plutonium for beneficial purposes. Instead we developed our policy in myopic isolation with high moral purpose, convinced that if we led the way others would follow. Now we turn around to discover that we are alone! Other nations that reprocess low-enriched uranium fuels are beginning to utilize the bred plutonium and are solving, in-part, the waste disposal problem. We have done neither! We are neither a leader nor a follower; we are just in the way!

The PEIS should discuss how the U.S., in conjunction with other nuclear nations, can develop and implement a universal policy for utilization and control of all plutonium, both military and civil. This discussion should be an

1/01.03.00

1/01.03.00
cont.

F-013

01 03 00

Comment Number 1

The PEIS analyzes the environmental impacts for storage of weapons-usable Pu and HEU from the U.S. weapons stockpile, disposition of Pu declared surplus to national defense needs. U.S. civilian materials and the materials of other nations, whether civilian or military, are not within the scope of the PEIS. The PEIS is not a U.S. or international policy-making document. However, by completing environmental analyses and related cost, schedule, technical, and nonproliferation analyses that will be used to reach a ROD, the United States will be in a position to implement Pu disposition efforts multilaterally or bilaterally through negotiations, or unilaterally as an example to Russia and other nations.

LANGER, SIDNEY, SAN DIEGO, CA
PAGE 2 OF 2

Integral part of the discussions in Chapter 1. An adverse impact that needs to be considered is whether a U.S. policy, developed again in isolation, would increase the future global availability of potassium for refractive purposes. It appears to me that such a primary decision is a prerequisite to consideration of the technical proposals for disposition.

Thank you for the opportunity to comment on the Draft PEIS.

Sincerely yours,
Sidney Langer
Sidney Langer

1/01 03:00
cont.

F-013

3-411

Plutonium Disposition EIS. General Comments

by W.F. Lawless

The disposition of plutonium is a complex decision for all Americans because of the uncertainties derived from plutonium's very long 24,000 year half-life. Other factors add to this complexity:

1. The uncertain threat of global warming from the burning of hydrocarbon fuels (e.g., coal, natural gas, gasoline, fuel oil, etc.).
2. The uncertainty of environmental effects from wind, solar, and hydroelectric power.
3. The uncertainty of the proliferation of weapons material from commercial reactors that generate electricity with plutonium fuels in Russia, Japan, and Europe.

To moderate the threats from proliferation, the U.S. has decided to dispose of its approximately 50 MT of excess weapons grade plutonium in one of three forms: in deep bore holes, contaminating it with fission products, and burning it up in reactors. The first option is an unattractive safeguard against proliferation, the second option recovers no energy, and the last option recovers a minor amount of energy as it passes once-through commercial reactors. The last two options comply with the spent fuel standard, i.e., they are as resistant to proliferation as the 1000 MT of spent fuel now scheduled for disposal at Yucca Mountain. But there are uncertainties with the spent fuel standard.

4. The uncertainty of safeguarding the plutonium after the fission products have decayed; the uncertainty of heat damage to Yucca Mountain during the first few hundred years; and the

SR-008

uncertainty from the radiotoxicity of plutonium and from the possibility of criticality events during the next 1,000,000 years at Yucca Mountain .

In contrast to the spent fuel standard, however, the SRS vitrified high level waste will be dangerous only during the time required for the decay of its fission products.

Mindful of the above facts, the options in the EIS overlook an environmentally better option. Before U-235 is used to produce electricity in the U.S., it is diluted with U-238, but U-238 exposed to U-235 creates plutonium. Thus, plutonium is a key ingredient of spent fuel. Even in the plutonium-disposition option three noted above, plutonium will be diluted with U-238 to create more plutonium as it burns up (NAS, p. 143n). Because of the uncertainties, DOE should include a fourth option.

5. The fourth option is to demonstrate the recovery and extraction of plutonium from excess weapons material and from spent mox fuel made from the excess weapons plutonium, to dilute it with non-fertile material instead of U-238 (e.g., Th-232 would generate fissile U-233; an aluminum or silicone mixture would not generate a fissile end-product), and to burn the plutonium in commercial reactors. The end result would be an environmentally safer standard for disposal at Yucca Mountain that could become known as the vitrified high-level waste standard. It would not only remove the threat of plutonium from the biosphere, but it would also reduce environmental threats (e.g., global warming, the mining of uranium, or the heat stresses at Yucca Mountain), recover the maximum amount of energy available from plutonium, and not generate new plutonium.

1/14.00.00

SR-008

14 00 00

Comment Number 1

Comment noted. Reprocessing is not an option, as stated in the President's Nonproliferation and Export Control Policy.

While the PEIS discusses the generation of spent fuel as an indirect result of potential disposition actions, any subsequent reprocessing and extraction of Pu from that spent fuel is beyond the scope of the PEIS and the fundamental nonproliferation purpose of the disposition effort. The PEIS evaluates disposition of surplus weapons Pu through MOX fuel but does not propose or further evaluate reprocessing of the spent fuel. The PEIS does not prejudice future decisions regarding the management or disposition of the spent fuel.

Specific Comments

1. Even if free, plutonium fuel relative to uranium fuel in a LWR is expensive (NAS, 1994, p. 24-5) and will require a subsidy (p. 164). Pu fuels are more economic for new advanced reactor concepts (for LMR's, see pp. 182, 186; for ALMR's, see p. 185). Fuel costs will be offset by the recovery of energy, utility repository subsidies, and the reduction of safeguard concerns (in WSRC, 1996).

2. A. Makhijani: "The United States is the only leading country that has wisely rejected the use of civilian plutonium because of its proliferation dangers and its high costs. It is therefore the only country that is in a position to exercise the leadership to persuade other countries to forgo civilian plutonium production, at least for the time being, and to put all separated plutonium into non-weapons-usable form." (Report, 1995, p. 15)

M. Lawrence: "Plutonium can be made into power reactor fuel and burned up in a reactor. Ample experience exists in the fabrication and use of mixed oxide fuels containing plutonium. While the economics of using mixed fuels are not considered favorable, at least by the U.S. and especially in the near term, several countries use or plan to recycle plutonium as a matter of strategic national policy." (Report, 1995, p. 31)

N. Egorov, Russia Federation on Atomic Energy: "I would say that we, in both countries, have paid too high a price sometime ago to generate and create that material and that is why we must choose the most efficient way of disposition of this material. That is why the general position of the Russian Federation in terms of plutonium disposition is that we should use, in the longer-term, that material as a component of the mixed oxide fuel for commercial power plants." (Report, 1995)

Currently, seventeen European and two Japanese commercial reactors burn plutonium MOX fuels (NAS, 1994, p. 186). By the year 2000, more are planned for Europe, Japan, and Russia.

3. U-235/U-233 plus U-238 produces plutonium (NAS, 1994, p. 205). Non-fertile fuels do not contain U-238 (NAS, p. 156).
4. Plutonium stocks, from the burning of U-235/U-238 in commercial reactor fuels, are increasing at about 60-70 MT per year (NAS, 1994, p. 28).
5. Low quality weapons grade (WG) plutonium and reactor grade (RG) plutonium are both explosive (NAS, 1994, p. 32-33).
6. Plutonium is difficult to handle because it is radioactive and toxic (NAS, 1994, p. 68).
7. Americium content is higher in RG rather than WG plutonium (NAS, 1994, p. 121-2).
8. Spent fuel rods destined for the repository are contaminated with fission products and plutonium. This spent fuel standard is safe from proliferation for the first few hundred years, however, as the fission products decay, proliferation risks increase proportionately (NAS, 1994, p. 151; p. 191; the spent fuel standard is described on p. 143).
9. "Options for near-total elimination of plutonium may have a role to play in the longer-term effort to reduce the risks posed by global plutonium stocks." (NAS, 1994, p. 143)

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10. "Institutional issues in managing plutonium disposition may be more complex and difficult to resolve than the technical ones. The process must be carefully managed to provide adequate safeguards, security, transparency, and protection for environment, safety, and health; to obtain public and institutional approval, including licenses; and to allow adequate participation in the decision making by all affected parties, including the U.S. and Russian publics and the international community." (NAS, 1994, p. 144)

11. "...as long as civilian plutonium exists and continues to accumulate, options that went further than the spent fuel standard and sought to eliminate the excess weapons plutonium entirely would provide little additional security, unless the same were done with the much larger amount of civilian plutonium." (NAS, 1994, p. 148; p. 155)

12. U.S. policy under President Clinton: "On September 27, 1993, the Clinton administration announced a nonproliferation initiative that makes clear that, while the United States will not interfere with reprocessing in Japan and Europe, "the United States does not encourage the civil use of plutonium and, accordingly, does not itself engage in plutonium reprocessing for either nuclear power or nuclear explosive purposes."" (NAS, 1994, p. 149)

13. Greater than 100 years may be necessary to destroy existing plutonium stocks (NAS, 1996, p. 209-219). The Academy does not recommend plutonium fuels (NAS, p. 221), but does recommend additional research on their use (NAS, p. 222), including high plutonium loadings to reduce the production of plutonium (NAS, p. 211). The NRC's Separations Technology and Transmutation Systems (STATS) is studying the burning of all actinides (NAS, p. 210).

14. The estimate by SRS to reprocess 40,000 MTHM of commercial spent fuel at SRS and dispose of the remains in a repository is about \$8.6 billion versus \$11.3 billion for dry disposal in the repository; the total costs for spent fuel, excess weapon materials, and spent Naval fuels is \$15.5 billion to reprocess and dispose versus \$28.8 billion to only dispose (WSRC, 1996). By comparison, T. Pigford estimates a cost of about \$100 billion to reprocess 630 MTHM (telephone call, April 1, 1996; he figured \$800-\$2,000 per kg of heavy metal to reprocess, \$1,200 per kg to fabricate, and \$400 per kg to recover energy; see also the Academy "STATS" report). Including reprocessing and fabrication fuel costs, Eichholz (1985) estimated that U-235/plutonium fuels were competitive with coal and oil-fired utilities in 1981 (p. 627).

15. The age of the facilities at SRS, and the radioactive releases from them, have been raised as issues if spent fuels are to be reprocessed at SRS. The separations canyons at SRS are more than 40 years old, however, their equipment has been upgraded and is functional.

These issues regarding the canyons can be related to other man-made structures. The Eiffel Tower, the Douglas DC-3 aircraft, and the Empire State Building are all older than the SRS canyons. Technology is not necessarily dated by its age; the Titanic, which sunk on its maiden voyage, is a good example. When the Empire State Building opened in 1931, the life-span of the average American was around 47. In 1988, according to the U.S. Bureau of the Census, the average life-span of Americans had increased to about 75. During this period, at the rate of about 2 million visitors annually, 75 million visitors had toured the Empire State Building. If each visitor toured the Empire State Building within about one hour, because some tall concrete buildings are radioactive at about 5 μ rads per hour (Eichholz, 1985, p. 108), the collective annual radioactive dose from the Empire State Building would be much greater than the dose to the population exposed to reprocessing releases from SRS.

SR-008

References

- Eichholtz, G.G. (1985). *Environmental aspects of nuclear power*. Chelsea, MI: Lewis Publ.
- National Academy of Sciences (NAS). (1994). *Management and disposition of excess weapons plutonium*. Washington, DC: National Academy Press.
- Report. (1995). *Plutonium Roundtable: Risks and solutions. A public education project on policy choices for nuclear weapon disposal*.
- Westinghouse Savannah River Company (WSRC). (1996). *Chemical stabilization of defense related and commercial spent fuel at the Savannah River Site*. Document No. NMP-PLS-950239.
- U.S. Department of Energy (DOE). (1996, February). *Storage and disposition of weapons-usable fissile materials draft programmatic environmental impact statement*. Summary. Washington, DC: Office of Fissile Materials Disposition.

LEAGUE OF WOMEN VOTERS, COLUMBIA, SC,
MARY T. KELLY
PAGE 1 OF 2

June 6, 1996

FROM: Mary T. Kelly, Natural Resources Specialist
League of Women Voters of South Carolina
4018 Sandwood Drive
Columbia, S.C. 29206
(803) 782-8410

TO: Department of Energy
Office of Fissile Materials Disposition
c/o SAIC-PEIS
P.O. Box 23786
Washington, D.C. 20026-3786

RE: Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic
Environmental Impact Statement dated February 1996

The League of Women Voters of South Carolina appreciates the opportunity to comment on this EIS. As residents of the state that is home to the Savannah River Site we have a major stake in the outcome of the decisions you are trying to formulate. We also appreciate the extension of the time for commenting on this most important EIS and for the efforts that have been made to educate the public on the issues involved. However, we regret that important educational efforts such as the Plutonium Forum held in N. Augusta were not done in a more timely manner and did not stress rather than minimize - aside from bomb making potential - the dangers inherent in plutonium. To mention just one point, never once was the term criticality used or defined.

In general we endorse the recommendations of the National Academy of Science although with serious reservations about the use of MOX fuel and the openness to possible deep bore hole disposal. Deep bore holes at SRS should only be done, if at all, based on new geologic studies and attention to possible earthquakes.

LWVSC joins with the League of Women Voters of Hilton Head Island and Dr. David Jordan in pointing out the serious dangers of inhalation from plutonium oxide and the problems inherent in creating new wastes during the process of fuel manufacture. Reprocessing the spent fuel rods would magnify the waste burden. As you well know, water soluble reprocessing waste has been a major danger and source of contamination at both Hanford and at SRS. It is only beginning to be addressed through use of the Defense Waste Processing Facility at SRS. Total confidence in the operation of that facility has yet to be achieved.

1/08.02.00

2/08.03.01

3/09.11.08

M-264

08 02 00

Comment Number 1

Comment noted.

08 03 01

Comment Number 2

The Department of Energy recognizes the commentor's concern with the Borehole Alternatives. Decisions on the disposition alternatives will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

09 11 08

Comment Number 3

The potential human health impacts from the proposed Pu storage and disposition alternatives are evaluated and presented in this PEIS for facility normal operation and anticipated accidents. The analysis considered all major potential exposure pathways including the inhalation of Pu oxide emitted from the facilities.

The manufacture of MOX fuel assemblies would create TRU and a minimal amount of mixed TRU wastes as described in Section 4.3.5.1.10. This waste would be treated and packaged in either a facility constructed with the MOX fuel fabrication plant or in an expanded central facility. The waste would be staged in storage facilities until it would be shipped to a Waste Isolation Pilot Plant (WIPP) for disposal, depending on whether DOE decides to operate the WIPP. While the PEIS discusses the generation of spent fuel as an indirect result of potential disposition actions, any subsequent reprocessing and extraction of Pu from that spent fuel is beyond the scope of the PEIS and the fundamental nonproliferation purpose of the disposition effort.

LEAGUE OF WOMEN VOTERS, COLUMBIA, SC,
 MARY T. KELLY
 PAGE 2 OF 2

We would like to stress the following points:

"The MOX fuel option - This was made to sound simple at the N. Augusta forum when in fact it is not. The down side of this needs to be clearly laid out for the public to understand. It should not be driven by utility or jobs pressure. To quote Dr. Jordan's statement "...burning MOX fuel looks like a pork-barrel program for electric utilities." As pointed out in the NAS report, with the passage of time, spent fuel rods cool radioactively and can be more safely handled by a future generation of rogue nations or terrorists bent on recovering plutonium.

4/06.00.08

"The Department of Energy should stop the hard sell in promoting programs on the basis of job creation, a potent weapon in getting the people and political structure of South Carolina to accept things that may not be in their or the nation's best interest. Your decisions should be based on hard scientific evaluations, in the overall interests of national security and the goal of non-proliferation. It is particularly disturbing to read in THE STATE of June 6 that Secretary Grambley himself told a group of South Carolina and Georgia lawmakers that if all the projected missions came to South Carolina, employment could grow to 19,000 by the year 2002. As you are well aware the Yucca Mountain site has run into major citizen opposition. It is highly likely that other states will have similar reservations about accepting proposed new missions. Sad to say, major, major decisions re our nuclear future are viewed by too many politicians and SRS workers and contractors as just one more form of economic development.

5/01.06.00

We wish you well as you wrestle with these necessary decisions which we agree, need to be made and implemented expeditiously. However, we hope that in so doing clean up and environmental remediation do not take a back seat.

6/11.00.06

M-264

06 00 08

Comment Number 4

Whereas it is true that the radioactivity does decay with time, the process is relatively slow, progressing with an approximately 30-yr half-life. If terrorists, or others could get access to the Pu in spent fuel, recovery of that Pu from spent fuel is a non-trivial challenge, even after the radiation field has decayed somewhat. Pu in spent fuel is not directly weapons-usable. To make it weapons-usable requires extracting the Pu from the spent fuel which is expensive and technologically complex. Once the surplus Pu is rendered to the Spent Fuel Standard it is no more attractive or useful than the Pu in already existing quantities of spent fuel.

01 06 00

Comment Number 5

The purpose of the Proposed Action is, in part, to establish the technical and program infrastructure that will enable the United States to take unilateral action or negotiate reciprocal actions with other nations for the disposition of surplus weapons-usable Pu. This PEIS addresses the environmental impacts of the reasonable alternatives for DOE's Proposed Action. Analyses of the cost, schedule, technical, and Nonproliferation Policy impacts are described in separate documents to support DOE's ROD. The documents related to technical, cost, and schedule analyses were made available for public review beginning in July 1996. The nonproliferation analysis was made available to the public beginning in October 1996. DOE also conducted a series of public meetings, prior to the issuance of the Final PEIS, to discuss the analysis of the Nonproliferation Policy as it relates to the Proposed Action and alternatives.

11 00 06

Comment Number 6

Comment noted. Decisions on storage and disposition of weapons-usable fissile materials will be based on environmental analyses, technical and economic studies, national policy considerations, and public input.

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PATRICIA TOUSIGNANT
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LEAGUE OF WOMEN VOTERS

HILTON HEAD ISLAND, S.C.

FROM: Patricia Tousignant, President
League of Women Voters of Hilton Head Island, SC
4 Deerfield Road
Hilton Head Island, South Carolina 29926
(803) 681-7718

Pat Tousignant

TO: Department of Energy
Office of Fissile Materials Disposition
c/o SAIC - PEIS
P.O. Box 23786
Washington, D.C. 20026-3786

RE: Weapons-Grade Plutonium Disposal
Plutonium Disposition Educational Forum
April 25, 1996
North Augusta Community Center, SC

Attached is a statement and newspaper article prepared by Dr. David Jordan for the League of Women Voters of Hilton Head Island, SC on the Disposal of Weapons-Grade Plutonium. Dr. Jordan attended this forum as our representative and prepared the following comments after studying the Fissile Materials Disposition Overview materials. The League of Women Voters submit this paper as our statement on this vital and sensitive issue. Dr. Jordan is a Chemistry Professor during the summer months at Potsdam College of the State of New York and resides the balance of the year in Hilton Head Island, South Carolina. His addresses and phone numbers are:

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Natural Resources Defense Council
Sen. Hollings
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Gov. Miller - IA
SRP-CAB members
Sen. Holly Cork-SC
Sen. McKinley Washington-SC
Rep. Billy Keyserling-SC
Rep. Scott Richardson-SC
Rep. James Hodges-SC

Congressmen: Spence
Clyburn
Spratt
Ingraham
Sanford
Senators: Sam Nunn
John Glenn
Union of Concerned Scientists
LWV-US
LWV-GA
LWV-SC
Elizabeth Cline / Sen. Cond.

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and Responses

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WEAPONS-GRADE PLUTONIUM DISPOSAL

Store it or Convert it to an Unattractive Hazardous Material through Using it as Fuel?

Government agencies and organizations such as the National Academy of Science have considered over thirty options for managing excess weapons-grade plutonium, arising from the dismantling of nuclear warheads. The Plutonium Disposition Educational Forum held in North Augusta on April 25 discussed two of these options.

Very pure metallic plutonium (Pu), containing a high percentage of the 239-isotope, for use in a bomb is a finely machined sphere roughly the size of a billiard ball. Some panelists emphasized the point that Pu-239 was not much of a health hazard, because it emits only alpha particles, which cannot penetrate far into tissue. Furthermore, the emission rate of these particles is slow, since particle emission by half of the plutonium atoms takes approximately 25,000 years. External contact with plutonium limits the radiation effects to the body surface.

However, health hazards become greater if the Pu metal is converted to its oxide, for the oxide can form dust particles, which may enter lung cavities. Plutonium oxide in the lungs increases ones risk for the development of lung cancer, because the emitted alpha particles will continually affect the closely surrounding tissue. The risk of a cancer is a function of the dose of plutonium inhaled.

Never mentioned at the forum is the fact that nitrate salts, which are produced during reprocessing of plutonium metal or the oxide, are water-soluble, so if by accident or storage tank corrosion these salts enter the public water supply, concentration of plutonium at other parts within the body is possible. At the end of 1994, the Savannah River Site was storing 126,300 cubic meters of highly radioactive solutions derived from reprocessing. Only in 1996 has treatment of these solutions begun. In 1960 the Savannah River site had a leak of 100 gallons of high-level radioactive waste into the ground water. The storage tanks at Hanford, Washington, a facility similar to the Savannah River Site have been leaking continuously since 1956, and have released over 730,000 gallons of liquid waste into the ground; it has been detected in test wells.

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Reportedly there is a warehouse in Russia where twelve-thousand thermos bottles of Pu materials are stored; the contents of just three would be sufficient to make a bomb. The security supervision of this Pu is eroding. Sufficient Pu-239 to construct a bomb could be smuggled out hidden in a worker's clothing. Forum speakers conveyed a sense of urgency that international agreements for the strict control of plutonium materials should be arranged soon.

The Department of Energy has narrowed the disposal options to three: 1) usage as a fuel in nuclear reactors. 2) placement into deep dry boreholes or mines (geologic disposal), and 3) immobilization in glass or ceramic with secure storage. The latter two could be combined. Forum speakers generally voiced opinions consistent with what one would expect from the companies or agencies that they represented: oxide reprocessors and nuclear power plant service employees favored the first option. There was wide agreement that there will be a large monetary cost for disposal of plutonium, no matter what the method.

The fuel option uses plutonium oxide mixed with uranium oxide (called a MOX fuel) in a nuclear reactor. Nuclear power plants now fission uranium oxide, and if properly modified, could fission MOX to generate electricity. Using plutonium oxide alone would be rather hazardous because it is more difficult to keep the fission process under control than it is with MOX or uranium oxide alone.

The majority of panelists supported the MOX fuel option and argued that in the foreseeable future there will be an insatiable need for energy, which nuclear fuel can partly supply, thus preserving petroleum for other purposes. The Russians, in fact, regard their plutonium stocks as a "National Treasure", and will not readily dispose of it. Storing weapons-grade plutonium in this country in a way which would make it easily retrievable would not seem to the Russians and others to be good-faith disposal, and the overriding concern is to quickly come to agreements to stop the proliferation. Very importantly, spent reactor fuel is so much more radioactive and hazardous than unspent fuel that only nations with highly sophisticated technology will be able to process it for further disposition, thereby eliminating the threat of its acquisition by rogue parties.

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On the other hand, immobilization advocates argue that MOX fuel is cheaply available (as is solar energy) but expensive to utilize. A MOX industry will perpetuate the supply of Pu because it can be reprocessed, and it is the continued vulnerability to theft and wider dispersal of this supply that is the issue of greatest concern. There are few reactors in the US (more in Europe) that are presently suitable to burn MOX. Modification of existing reactors will require substantial capital investment.

Although immobilization of wastes is not yet a highly developed technology, glass is durable and environmentally acceptable and glass technology is well established. Geologic disposition is stalled partly due to political opposition and the tedious pace of federal governmental action. It seems that these methods could be available much earlier if an appropriate sense of urgency existed. If immobilization ensures that highly-radioactive wastes are included in the glass encasements, nations, individuals or terrorist organizations lacking sophisticated technology would not be able to reprocess the materials without subjecting themselves to severe health effects. Immobilization preserves the material for future use, while minimizing the creation of new wastes. Even with the fuel option, not all of the potential fuel is of suitable quality for burning; a disposal program for this will be required anyway. Inventories of material, openly published and verifiable, would alleviate suspicions, permit careful monitoring and promote international agreements.

According to one speaker, "urgency is the name of the game" to prevent the dangers of a return to weapons production or the consequences of weapons-grade plutonium reaching the hands of terrorists.

It seems to this observer that although there are valid arguments for each of these possible methods of disposal, sustaining the plutonium cycle with the present technology by reprocessing and burning MOX fuel looks like a pork-barrel program for electric utilities, compounds the risks of nuclear proliferation, and certainly leads to even greater waste disposal and clean-up costs. To be able to urge other nations to place decreased reliance upon plutonium and to allay their suspicions regarding the United State's intended use of our plutonium, we must store it so that it is not readily recoverable, openly publish our inventory of stored nuclear wastes, and freely allow others to verify the disposition of these materials.

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cont.

M-244

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's support for the immobilization disposition technologies. Immobilization disposition would place the material in a form which is not readily recoverable, and would permit verification of the disposition of the materials.

08 03 01

Comment Number 2

The Department of Energy acknowledges the commentor's opposition to the Reactor Alternative using MOX fuel. Decisions on disposition of weapons-usable fissile materials will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

Society is not presently managing these materials and wastes well. If in the not-too-distant future the nuclear energy in these stored materials becomes essential for society, the waste-treatment technology and security procedures may have improved and be comparable with those of a still-evolving reactor technology. In twenty-five thousand years, the plutonium will still have half of the energy value that it has now.

A thorough discussion of this issue may be found in the 1994 report of the National Academy of Sciences: *Management and Disposition of Excess Weapons*.

David Jordan

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June 7, 1996

Mr. Greg Rudy
Acting Director
Office of Fissile Materials Disposition
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

Dear Mr. Rudy:

We are writing to provide our comments on the Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statement ("DPEIS"). Despite the substantial effort that went into preparation of the draft analysis, there are a number of important issues that were given inadequate attention or no attention at all. These defects, as discussed below, must be corrected if the final PEIS is to meet the requirements of the National Environmental Policy Act and the Department of Energy's (DOE) implementing regulations (10 C.F.R. 1021).

Nonproliferation and Cost Analyses Must Be Included in the DPEIS and Integrated Into the NEPA Decision-Making Process

DOE is still preparing a cost analysis and a non-proliferation analysis of disposition options. At the April 18 public hearing on the DPEIS, you stated that those analyses eventually would be made available to the public when completed, but not prior to the end of the comment period, then scheduled for May 7. (At the urging of several public-interest groups, including some of those signing this letter, the comment period was extended to June 7, but not to 45 days after the cost and nonproliferation analyses are made publicly available, as requested.)

DOE claims that these analyses are not required for inclusion in the PEIS, which focuses on environmental issues. This is an inappropriately narrow view of the scope of programmatic environmental impact statements. As spelled out in the letter to Secretary O'Leary of April 5 requesting the delay, previous EIS's have included detailed nonproliferation analyses, even making non-proliferation a primary decision criterion. Cost analyses have been included as decision factors in a number of EISs, as well. The plutonium disposition DPEIS explicitly cites "non-proliferation," "security," and "cost-effectiveness" as among the screening criteria used in the disposition PEIS process to rule out certain disposition alternatives. Certainly the cost and non-proliferation analyses used to support these decisions must be incorporated into the PEIS itself.

It is our position, therefore, that the public comment period should remain open until 45 days after all relevant support documents, including the cost and non-proliferation analyses, are made publicly available. Therefore, these analyses, together with public

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2/08.02.00

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08 00 00 **Comment Number 1**

In the interest of openness and more informed decisionmaking, DOE released Technical Summary Reports to the public as soon as they became available. Cost data, along with technical and schedule data, were provided in Technical Summary Reports of both storage and disposition in the summer of 1996. Results of the nonproliferation analysis were made available in the Fall of 1996. Each of these analyses along with the environmental analysis and public input will be integrated into DOE's decisionmaking process.

08 02 00 **Comment Number 2**

At the request of several organizations and individuals, the public comment period for the PEIS was extended to a total of 92 days. The technical, cost, and schedule analyses were made available to the public for review beginning in July 1996. The nonproliferation analysis was made available to the public for review beginning in October 1996. These analyses, along with consideration of public comments on these analyses and the Final PEIS are fully integrated in DOE's decisionmaking process.

comments on them, must be fully integrated in the Department's decision-making process under NEPA.

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cont.

Issues That Must Be Included in the Nonproliferation Analysis

The National Academy of Sciences' (NAS) 1994 study¹ of weapons-plutonium disposition proposed three proliferation risk factors for use in comparing plutonium-disposition options: risk of theft, risk of reversal, and impact on arms reduction. These are important criteria that should guide DOE's analysis, but the DPEIS does not specifically address them. These risks must be fully evaluated in the non-proliferation analysis and be made part of the DPEIS.

3/01.06.00

Analysis of the risk of theft and diversion must include a thorough examination of difficulties encountered with plutonium accountancy at mixed-oxide (MOX) fuel fabrication plants. In particular, the 70-kilogram plutonium discrepancy at the Plutonium Fuel Production Facility (PFPP) in Japan is now the subject of an extensive clean-out inspection by the International Atomic Energy Agency (IAEA). The discrepancy results from excessive hold-up of plutonium in the process line of this purportedly a state-of-the-art MOX fuel fabrication facility, and raises serious questions as to whether MOX disposition options can be adequately safeguarded. Nor does the lack of knowledge by the IAEA of the results of in-process materials accounting at MOX fabrication plants within Euratom provide any basis for assuming that these plants are subject to effective safeguards either.

4/01.06.00

Analysis of the risk of reversal must address the comparative difficulty of retrieving plutonium from final waste forms. Appendix H of the DPEIS, "High-Level Waste Forms Comparative Analysis," fails to examine these issues. A detailed comparative analysis of plutonium retrievability from spent MOX fuel and immobilized glass and ceramic waste forms must be included along with the factors already addressed, such as regulatory issues, criticality, thermal load, radiation, and releases.

5/01.06.00

Analysis of risks to arms control and nonproliferation must include a thorough assessment of the international repercussions of a U.S. decision on disposition technology. The DPEIS implicitly acknowledges the importance of what the NAS study called the "fuel cycle policy signal" when it posits that one of the goals of the disposition process is "to strengthen national and international arms control efforts by providing a storage and disposition model for the international community." But the DPEIS does not explicitly consider the fuel cycle policy signal that the MOX option would send relative to alternative immobilization options.

6/01.06.00

¹ Committee on International Security and Arms Control, National Academy of Sciences, Management and Disposition of Excess Weapons Plutonium, 1994.

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01 06 00

Comment Number 3

The purpose of the Proposed Action is, in part, to establish the technical and program infrastructure that will enable the United States to take unilateral action or negotiate reciprocal actions with other nations for the disposition of surplus weapons-usable Pu. This PEIS addresses the environmental impacts of the reasonable alternatives for DOE's Proposed Action. Analyses of the cost, schedule, technical, and nonproliferation policy impacts are described in separate documents and will be considered in DOE's decision. The documents related to technical, cost, and schedule analyses were made available for public review beginning in July 1996. The nonproliferation analysis was made available to the public beginning in October 1996. DOE also conducted a series of public meetings, prior to the issuance of the Final PEIS, to discuss the analysis of the nonproliferation analyses, *Draft Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Materials Storage and Plutonium Disposition Alternatives*, as it relates to the Proposed Action and alternatives.

The analysis of the nonproliferation impacts examines, among other things, the risk of theft, risk of reversal, and arms reduction impacts for the various Reactor Alternatives using MOX fuel and Immobilization Alternatives.

01 06 00

Comment Number 4

The Department of Energy acknowledges the commentor's opposition to the Reactor Alternative using MOX fuel. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations (including the nonproliferation analyses), and public input. The nonproliferation analyses, *Draft Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Materials Storage and Plutonium Disposition Alternatives*, examines the potential diversion risk using MOX fuel fabrication, safeguards, "hold-up" material, and accountability to the IAEA and international community, among other things. These nonproliferation analyses have been made available for public comment and will be considered in the decisionmaking process.

01 06 00

Comment Number 5

One of the goals of materials disposition is to make the Pu as inaccessible and unattractive for weapons use as the residual Pu contained in commercial

In its September 27, 1993 non-proliferation policy statement, the Clinton administration declared that "the United States does not encourage the civil use of plutonium and, accordingly, does not itself engage in plutonium reprocessing for either nuclear power or nuclear explosive purposes." The possibility that the MOX option would have an adverse affect on U.S. non-proliferation policy by stimulating the use of MOX in civil nuclear power programs and thereby encouraging plutonium reprocessing and recycling must be addressed in the DPEIS's analysis.

7/01.06.00

Cost Analysis Must Include Subsidies to Nuclear Utilities and Be Integrated into the NEPA Decision-Making Process

Like the non-proliferation analysis, the cost analysis of plutonium disposition options now being prepared by Oak Ridge National Laboratory must be integrated into the NEPA decision-making process. That analysis must include all costs of the various disposition options, including subsidies being demanded by nuclear electrical utilities that have expressed interest in using weapons-plutonium MOX fuel. Given recent regulatory changes and the severe diseconomics of nuclear electricity generated at some facilities, these utilities face strong competition from non-nuclear electrical generators. An industry technical analysis fully anticipates that some utilities will insist upon not simply compensation for direct costs related to warhead plutonium disposition in their reactors, but subsidization of the electricity these reactors produce to guarantee that it is economically competitive with electricity from alternative non-nuclear sources, a subsidy that could cost U.S. taxpayers billions of dollars over the life of the plutonium-disposition program.² These costs must be carefully calculated in advance, so that they can be taken into account in the decision on disposition alternatives.

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cont.

Pyroprocessing Immobilization Alternative Must Be Fairly Assessed

The DPEIS (Section 2.4.3.3) posits "electrometallurgical treatment" as one of the immobilization options. This technology, also known as "pyroprocessing," was developed by Argonne National Laboratory as part of the Integral Fast Reactor (IFR) Program, which DOE has since cancelled, largely on non-proliferation grounds.

Because it involves reprocessing technology, pyroprocessing poses a proliferation risk and undercuts U.S. non-proliferation policy aimed at discouraging reprocessing. Nor is it a sensible technical alternative; both a recent National Academy of Sciences study and an

8/01.04.00

² One study calculates that such a subsidy may run as high as six cents per kilowatt-hour, depending upon the utility and plants, equivalent to billions of dollars. GE Nuclear Energy, Study of Plutonium Disposition Using Existing GE Advanced Boiling Water Reactors, NEDO-32361, Prepared for the U.S. Department of Energy, June 1, 1994, p. 1.2-4.

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nuclear spent fuel (that is, the Spent Fuel Standard). The Pu contained in spent MOX fuel or in an immobilized glass or ceramic form is deemed to meet the Spent Fuel Standard. The proliferation resistance of the final MOX spent fuel and immobilized forms is compared for the various alternatives and variations in DOE's nonproliferation study, *Draft Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Material Storage and Plutonium Disposition Alternatives*, which was made available for public review in October 1996. DOE also conducted a series of public meetings, prior to the issuance of the Final PEIS, to discuss the analysis of the Nonproliferation Policy as it relates to the Proposed Action and alternatives. The proliferation analysis, along with the PEIS, public comments, cost, schedule, and technical analyses will be part of the decisionmaking process to support the ROD.

01 06 00

Comment Number 6

Converting surplus Pu into MOX fuel is not the end state. The end state is to use the MOX fuel in a reactor so that it meets the Spent Fuel Standard for proliferation resistance after irradiation. While the Pu is in the MOX fuel form, it would be subject to high standards of safeguard and security.

While the PEIS discusses the generation of spent fuel as an indirect result of potential disposition actions, any subsequent reprocessing and extraction of Pu from that spent fuel is not being proposed by DOE and is beyond the scope of the fundamental nonproliferation purpose of the disposition effort. The fact that the PEIS evaluates disposition of surplus weapons Pu through use in MOX fuel, but does not further propose or evaluate reprocessing of the spent fuel, does not suggest or propose reprocessing for the management or disposition of the spent fuel.

The President's Nonproliferation Policy does not prohibit the use of MOX fuel, but rather restricts the separation of Pu for civilian use. Fabricating MOX fuel from surplus weapons-usable Pu and using that fuel in a once-through fuel cycle would meet the Purpose and Need of the PEIS for Pu disposition and would not violate the President's policy.

internal DOE report³ reject it as a viable weapons-plutonium disposition alternative. DOE has ignored these considerations in its analysis. They must be included in the Final PEIS analysis, which, accordingly, must reject electrometallurgical treatment as an option for plutonium disposition.

8/01.04.00
cont.

Safety and Health Impacts of Disposition Options Must Be Consistently and Accurately Assessed

A major objective of the DPEIS should be to present a thorough evaluation of the occupational and public health risks of different weapons-plutonium disposition options. Disposition options then should be ranked according to the risks they pose, and this ranking should play an important role in the eventual choice of disposition option.

The DPEIS, however, fails to accomplish this objective. Its methodology for evaluating and comparing the safety risks of different disposition options is logically inconsistent and confusing. These inconsistencies serve to exaggerate the risks of the immobilization options relative to the reactor-based options. They must be corrected in the final version to provide a fair presentation of the evaluation and ranking of the safety risks of immobilization and reactor-based disposition options.

9/09.09.08

Such a presentation would show that the health and safety impacts of the immobilization options will be substantially lower than those associated with the reactor options. However, the DPEIS is structured to minimize the significance of this fact.

What follows is a partial listing of the deficiencies we have identified:

- The DPEIS overestimates the safety and health impacts of the immobilization options by explicitly including only the absolute impacts of options requiring new facilities, and not the incremental impacts associated with existing facility process variants, such as can-in-canister at the Defense Waste Processing Facility (DWPF). On the other hand, the DPEIS does explicitly evaluate the incremental impacts of the existing Light Water Reactor (LWR) MOX option with respect to normal (as distinguished from accidental) emissions. This leads to an inconsistent comparison of the two options.

10/09.09.08

- The accident analysis of the LWR option is based entirely on an irrelevant case, an evolutionary LWR fueled with low-enriched uranium, which does not account for the numerous unresolved safety issues associated with the use of full-core, weapons-grade

11/09.09.08

³ "Comments on the Electrometallurgical Process," attachment to letter to Bill Danker, MD-1, from Leonard Gray, Task Leader, Fissile Materials Immobilization Task [sic], Fissile Materials Disposition Project, August 30, 1995; Gregory R. Choppin, et al., An Evaluation of the Electrometallurgical Approach for Treatment of Excess Weapons Plutonium, National Research Council, 1996.

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Comment Number 7

The President's Nonproliferation Policy says the United States will not recycle Pu. Burning weapons-usable Pu in reactors does not utilize the recycling process because the Pu in the spent fuel from this process will not be extracted for reuse in new fuel. This is consistent with U.S. policy since no Pu is being recycled. After a once-through fuel cycle, the Pu would be converted to a nonproliferation form as spent reactor fuel.

01 04 00

Comment Number 8

The Department of Energy acknowledges the commentor's opposition to the Electrometallurgical Treatment Alternative. Information and assessments on Electrometallurgical Treatment will be taken into account in the decision process. Separate technical, schedule, and cost analyses on the disposition options, including the Electrometallurgical Treatment Alternative, were issued by DOE beginning in late July 1996; the nonproliferation analysis of the disposition options, including electrometallurgical treatment, was issued for public comment in October 1996. The Electrometallurgical Treatment Alternative is analyzed in the PEIS because it is a "reasonable" alternative, and as such, must be analyzed under NEPA. Section 2.4.4.3 of the PEIS has been revised to note the NAS concerns regarding the use of electrometallurgical treatment for Pu disposition. Further, Electrometallurgical Treatment Alternative is not included in the Preferred Alternative.

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Comment Number 9

Potential human health impacts from Proposed Actions are analyzed and documented in this PEIS as required by NEPA. To inform the public and decisionmakers, all latent cancer risks associated with the alternatives are presented in the PEIS regardless of their risk magnitude. The ranking or decisionmaking analysis of the alternatives will be based on various factors including human health impacts. DOE's intent in the PEIS is to provide an unbiased environmental analysis of all alternatives. However, the Reactor Alternatives generally do have more available information than other disposition alternatives because of industry experience.

MOX fuel in existing LWRs or CANDUs. As a result, the important issue of how accident impacts may increase if MOX is substituted for LEU in existing reactors is not addressed. This is a crucial point because the incremental accident risks resulting from this substitution may actually exceed the absolute risks of an evolutionary LWR accident as cited in the DPEIS.

11/09.09.08
cont.

* A DPEIS reference document⁴ lists LWR accidents with higher frequency and greater consequences than the most severe LWR accident sequence evaluated in the DPEIS;

12/09.09.08

* The geographical range of the safety analysis is unjustifiably limited: the choice of an 80-km threshold for consideration of public health impacts leads to absurd conclusions, such as the notion that an accident in a Canadian CANDU reactor would have no environmental impact in the US;

13/09.09.08

* The absence of discussion of economic and other external factors severely impairs the credibility of the safety analysis, especially as it applies to the MOX option.

14/09.09.08

Transportation Safety and Security Issues Must Be Addressed

The DPEIS does not discuss the security arrangements for sea shipments of plutonium or MOX reactor fuel, which would be necessary if warhead-plutonium MOX fuel were fabricated in Europe. These arrangements may be included in the classified appendix on transportation.⁵ If so, some aspects of these arrangements should be made a part of the public record and subject to independent evaluation. Further, there is no discussion of transportation security arrangements with the government of Canada if CANDU reactors were used. These matters require clarification. The DPEIS needs to state publicly what level of security will be required for shipments of plutonium and MOX. This can be done without providing explicit details regarding armament, routing and scheduling that might prove useful to a potential adversary.

15/10.00.00

Appendix G compares transportation impacts for the different disposition alternatives. The analysis understates the environmental hazards of transporting radioactive material by embracing the Type B transport standards and assigning a low probability to an accident that could result in a breach of the Type B cask. The appendix ignores recent

16/10.02.00

⁴ Fissile Material Disposition Project, Lawrence Livermore National Laboratory, *Evolutionary/Advanced Light Water Reactor Data Report*, UCRL-ID-123411, February 9, 1996, Table 8-5, p. 8-14.

⁵ This classified appendix is mentioned on page 4-783 of the DPEIS, but a citation is not given and no further information is provided.

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Comment Number 10

The human health impacts for both the existing condition (No Action) and the Proposed Actions are evaluated and presented for all Proposed Alternatives in the PEIS, including the Existing LWR Alternative (The health impacts from potential accidents for the three Reactor Alternatives using MOX fuel are also analyzed.) The incremental impacts are those impacts from Proposed Actions over existing conditions at the same site. For example, the incremental impacts of using the partially completed LWR would be represented by the total impacts because the LWR was not operated before. Whereas, the incremental impacts of using the existing LWRs would be represented by the differences between using the proposed MOX fuel and the current uranium dioxide (UO₂) fuel. Section 4.3.5.2.9 of the Final PEIS has been modified to show the incremental and total impacts.

Appendix O was added to the Final PEIS to provide a description of the immobilization variants utilizing the can-in-canister approach at SRS. The DWPF (an existing facility) is included in this description. The preferred alternative in the Final PEIS includes the immobilization alternative in new or modified existing facilities. Further tiered NEPA analysis will be provided, as appropriate, for the alternatives selected in the ROD. Table 2.4-1 of the PEIS also included possible variants, many of which utilize existing facilities.

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Comment Number 11

The human health impacts for both the existing condition (No Action) and the Proposed Action are evaluated and presented for all alternatives in the PEIS, including the Existing LWR Alternative. (The health impacts from potential accidents for all three Reactor Alternatives using MOX fuels are presented in the Final PEIS.) Incremental impacts are those impacts from the Proposed Actions over the existing conditions at the same site. For normal operations, both incremental impacts and total impacts are presented in the PEIS for each disposition alternative. While incremental impacts may appear lower for existing alternatives, the total impacts do not cause misleading impressions. Also, an inclusion of potential avoided environmental impacts from a Proposed Action is appropriate to the NEPA process. The avoided environmental impacts are presented when the potential environmental

expert reports that challenge the adequacy of the Type B standards,⁴ as well as ongoing initiatives within the IAEA and the International Maritime Organization (IMO) to re-evaluate these standards in the context of historical data about accident conditions. Instead, the DPEIS relies on earlier reports to assert the adequacy of Type B containers. The DPEIS' analysis is cursory and outdated, and must be revised to take into account the most recent studies and the ongoing IAEA and IMO re-evaluations of these cases.

16/10.02.00
cont.

We believe that all of the above issues must be thoroughly addressed for the PEIS to conform with NEPA requirements and provide an adequate basis for the Secretary's decision on long-term disposition of weapons-usable fissile materials.

If you would like further detail on the above points, please contact Steven Dolley of the Nuclear Control Institute at 202-822-8444.

Sincerely,

Paul Leventhal
Nuclear Control Institute

Christopher Paine
Natural Resources
Defense Council

Deryl Kimball
Physicians for Social
Responsibility

Jennifer Weeks
Union of Concerned
Scientists

⁴ Illinois Institute of Technology Research Institute (IITRI), "Definition of Bounding Physical Tests Representative of Transport Accidents—Air and Marine," IITRI KO6019, November 1983; ECO Engineering, Inc., Annapolis, MD., "A Review of the Proposed Marine Transportation of Reprocessed Plutonium from Europe to Japan," March 1992; Edwin S. Lyman, Princeton University School of Engineering/Applied Sciences, "Safety Issues in the Sea Transport of Vitrified High-Level Radioactive Wastes to Japan," December 1994.

M-289

impacts from the Proposed Action are less than the impacts from the existing condition.

09 09 08 **Comment Number 12**

The accident impacts for existing and partially completed LWRs were taken from existing documents for a set of representative facilities. Accident impacts presented in the PEIS were the average impacts of the representative facilities. However, the Final PEIS includes quantitative health risk analyses for the evolutionary, existing, and partially completed LWRs using MOX fuel for both normal operations and potential accidents.

09 09 08 **Comment Number 13**

Like any other EIS, a realistic impact area has to be defined to conduct radiological impact assessment. Federal guidance defines two major impact regions. NUREG-0654 defines 16 km (10 mi) as the plume exposure region and 80 km (50 mi) as the ingestion exposure region for the nuclear facility accident emergency planning zone. While populations at greater distances may receive some exposure from an accidental release of radioactive material into the environment, this exposure would be considerably less than the exposure to the population within the 80 km (50 mi) region. Also, extending the assessment to further distances would introduce greater analytical uncertainties to the calculated impacts.

It is acknowledged that if the source term was very large then the boundaries chosen could be extended. Nevertheless, NUREG guidance is an appropriate and reasonable choice for NEPA analysis.

09 09 08 **Comment Number 14**

Technical, cost, and schedule analyses were made available to the public beginning in July 1996. The nonproliferation analysis was made available to the public in beginning in October 1996. Input from each of these analyses will be integrated in the DOE's decisionmaking process.

Tom Clements
Greenpeace InternationalFred Miller
Nuclear Waste
Citizens CoalitionBill Magavern
Public CitizenKathryn Crandall
Women Strike for PeaceMichael Mariotte
Nuclear Information Resource
Service

cc: Dave Nulton

M-289

10 00 00

Comment Number 15

The PEIS analysis assumes that transport of Pu by ship would be done by dedicated British Nuclear Fuel, Limited, or COGEMA ships from military seaports in the United States to seaports in Great Britain or France. The transport would meet applicable IAEA requirements and the International Maritime Organization (IMO) code. While in temporary storage at the seaports and during transport on the ship, appropriate escort security measures would be implemented. Section G.1.2.5 provides a description of the transportation effects on the global commons and includes the results of an environmental assessment of the sea shipment of Pu, *Environmental Assessment of the Import of Russian Plutonium-238*, referenced in the PEIS as DOE 1993x. Technical and licensing issues related to the MOX fuel fabrication have been considered by DOE in the technical evaluations of the storage and disposition alternatives, which were issued in late July 1996. It is anticipated that MOX fuel fabricated in Europe would not be used in a reactor in Canada.

10 02 00

Comment Number 16

Type B packagings are currently certified safe for transporting radioactive materials. The comments were given consideration for the PEIS, but the analysis used is for currently certified packagings. If the safety certification for the packaging is withdrawn, then new analyses would be required.

Date Received: 06/12/96
Comment ID: P0051
Name: Marvin Lewis
Address: 3133 Fairfield Street
Philadelphia, Pennsylvania 19136

Transcription:

My name is Marvin (M-a-r-v-i-n) Lewis (L-e-w-i-s), 3133 Fairfield Street, Philadelphia, PA 19136 Area Code (215)676-1291. I appreciate that the comment line is still open. I hope that there has been an extension for comments on the supremely dangerous and very problematical programmatic PEIS. But to go on with my comments, yes, there is plutonium produced in commercial nuclear reactors. However, to start with MOX, mixed oxide fuel, is a matter of danger, great danger. This was gone over back in the -- when it was first proposed commercially, many years ago in GESMO, General Environmental Statement on Mixed Oxide Fuel. The very comments I made in GESMO and all the comments in GESMO should be incorporated as a minimum, into this PEIS. Many, many issues were raised that have been lost from memory both institutional and personal. And I've also lost a lot of the paperwork which is almost impossible to find -- except in the NRC Reading Room. This is a dangerous, impossible suggestion that we go to mixed oxide fuel. Many reactors are in areas of high population. Any, any plutonium releases would be disastrous. I really ask that whomever thought this one up, rethink it and stop it. Respectfully submitted, Marvin Lewis.

1/08.03.01

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's opposition to the Reactor Alternative using MOX fuel. Decisions on disposition of weapons-usable fissile materials will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

P-051

LINDSTROM, JUDY M., PLEASANT HILL, TN
PAGE 1 OF 1

Judy M. Lindstrom
PO Box 255
Pleasant Hill, TN 38578
May 1, 1994

U.S. DOE, Office of Reconfiguration
PO Box 3417
Alexandria, VA 22302

Dear DOE:

I do not agree with your Programmatic Environmental Impact Statement (PEIS) on nuclear weapons and materials for our nuclear weapons complexes. The options you've considered for disposal or disposition of excess refined materials are unsafe and does not solve the waste problem:

--Nuclear reactors that use plutonium also produce plutonium and even larger quantities of dangerous by-products.

--The cost of developing and maintaining reactors is prohibitive.

--Traditional methods of disposal (e.g., deep bore hole disposal) are unreliable, given the unstable and long-term nature of these wastes.

I urge you to adopt a plan that would limit the amount of processing and transportation of materials, and certainly not plans that would increase the amount of wastes. Consider vitrification or glassification of plutonium, which would immobilize it and also help prevent "proliferation."

Yours truly,
Judy M. Lindstrom

1/08.03.01

2/08.03.01

F-058

08 03 01 Comment Number 1

The Department of Energy acknowledges the commentator's opposition to the Reactor Alternatives. However, NEPA requires that DOE look at all reasonable alternatives and, therefore, reactor burning must be considered. Decisions on the disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01 Comment Number 2

The Department of Energy acknowledges the commentator's support for the Vitrification Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

LITT, VALERINE, OAK RIDGE, TN
PAGE 1 OF 1

Date Received: 04/03/96
Comment ID: P0002
Name: Valerine Litt
Address: Oak Ridge, Tennessee

Transcription:

My name is Valerine Litt. I want that stuff at Oak Ridge out of there. I read an article that the cancer rate within a 100 mile radius was higher than any other place in the nation. I have lost six members of my family to cancer in the last 20 years. I now have one brother that has been free of throat cancer for five years after two major surgeries and 32 radiation treatments. I myself had cancer of the uterus 20 years ago. Why not put it somewhere else? I went to Oak Ridge when I was fifteen years old when you had to go through a gate where there was guards where this radiation stuff and the war material and all of that there. We have had it long enough in this area. Get it out. Now.

1/08.03.01

P-002

08 03 01

Comment Number 1

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

LOCKE, JOHN W. AND JOYCE C., AMARILLO, TX
PAGE 1 OF 1

6202 Yale
Amarillo, Texas 79109-6727
April 27, 1996

Department of Energy
1000 Independence Avenue, S. W.
Washington, D. C. 20585

Re: Pantex - No Plutonium

Dear Ms. O'Leary:

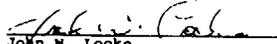
We are against the long-term storage and disposition of plutonium and highly enriched uranium at the Pantex Plant located at Amarillo, Texas.

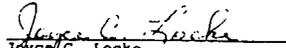
We feel the storage of radioactive material at Pantex endangers the Ogallala Aquifer which is the "blood" that nourishes our nations's farm land.

I was exposed to radioactive material in Operation Crossroads (Bikini, 1946) and have since learned that NO amount of radiation is safe.

Please do not make Pantex a nuclear long-term storage facility.

Sincerely,


JOHN W. Locke


Joyce C. Locke

1/08.03.01

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's opposition to new missions at Pantex. Waste/hazardous material treatment/handling operations are regulated to minimize the potential for releases of hazardous substances to the soil or surface water that could then migrate to the groundwater. Decisions on storage and disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

M-201

LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NM,
KEN BOWER
PAGE 1 OF 1

Forwarded message:

> From httpd Thu Nov 16 14:16:51 1995
> Date: Thu, 16 Nov 1995 14:16:50 -0500
> From: HTTPD Daemon <httpd>
> Message-Id: <199511161916.AA00853@fedix.fie.com>
> Reply-To: doemd1
> Subject: COMMENT Form - incoming
> Apparently-To: doemd1-demo@fedix.fie.com
>
> ** To be properly posted to the correct forum area the
> ** reply to this message MUST be mailed to >> doemd1@fedix.fie.com <<!
>
> **
> ** This message was generated by the submission of a From Comment
> ** on the Fissile Materials Electronic BBS. Reply to this message
> ** with the text of this message included in the reply. All "Replied"
> ** are publicly available on the Electronic BBS
>
> ** This is information generated at the time of submission and is
> ** used to track individual comments. It should not be changed!
> #To = doemd1-demo@fedix.fie.com
> #serial_no = 131
> #MailTitle = COMMENT Form - incoming
>
> ** The following information is DATA from the comment form. The
> ** "ctype" is the Author's Request for a Public or Private comment.
> ** If you do not want this message to be publicly posted to the BBS
> ** do nothing or reply to the author directly.
> #name = Ken Bower
> #title = Staff Member
> #company = Los Alamos National Laboratory
> #addr1 = A117
> #addr2 =
> #city = Los Alamos
> #state = New Mexico
> #zip = 87545
> #phone = 505-665-2578
> #fax = 505-665-4411
> #email = kebower@lanl.gov
> #subject = internet access to PEIS
>
> ** The following is the text of the Author's Comment.
> #BEGIN comment = | 1/08.02.00
> Making the PEIS available on-line is extraordinarily valuable. Thank you.
> #END comment

E-001

08 02 00

Comment Number 1

Comment noted.

3-437

Comments
and Responses

LOSEY, DAVID C., AIKEN, SC
PAGE 1 OF 1

David C. Losey
1628 Citation Drive
Aiken, South Carolina 29803-5224



May 7, 1996

Mr. J. David Nulton, Director
DOE - Office of Fissile Materials Disposition
c/o SAIC - PEIS
P. O. Box 23786
Washington, DC 20026-3786

Dear Mr. Nulton:

I'd like to offer these comments on the EIS for *Storage and Disposition of Weapons-Usable Fissile Materials*.

The spent fuel standard provides a fundamental basis for much of the proposed action in the EIS. This basis may be flawed without a disposition path for the spent fuel. We shouldn't assume that at some future time we'll merely bury the spent fuel. There is a growing awareness that burying wastes in the earth is a poor option.

Relying on the spent fuel standard needs to be preceded by DOE taking responsibility for closing the spent fuel cycle. It is important to have the disposition path opened before converting the excess weapons plutonium to spent fuel. The benefits gained by making the plutonium unattractive through activation could be grossly outweighed later by difficulty in handling the material.

Please consider having the entire plutonium disposition plan in place before activating or mixing the plutonium with radioactive contamination.

Thank you for the opportunity to comment on this program.

Sincerely,
David C. Losey
David Losey

1/01.02.00

M-190

01 02 00

Comment Number 1

The ultimate disposition path, an NWPA geologic repository, for the spent fuel would be the same as any spent fuel from nuclear reactors in the United States. Design of the MOX fuel containing weapons-usable Pu is done such that the spent fuel would meet the performance criteria for disposal in an NWPA geologic repository.

Comment Form
United States Department of Energy

NAME: (Optional) Michael J. Lowrey
ADDRESS: 6504 Falcon Amarillo Texas 79109
TELEPHONE: (806) 359-0172

No preferred option was rendered on the Plutonium storage assessment. After the public meetings are held and proposed there will be a 30-day comment period but no individual written response document on this option. With the other assessments giving a preferred option - where is the equity?

1/08.00.00

TX-052

08 00 00

Comment Number 1

A Preferred Alternative was not identified in the Draft PEIS for two reasons. First, DOE wanted to obtain public input on the alternatives before identifying a Preferred Alternative. Second, DOE wanted to develop additional information on technical, cost, schedule, and policy consideration independent of the NEPA analyses. The results of the technical, cost, and schedule analyses were issued by DOE in July 1996 and the results of the nonproliferation study were issued in October 1996. This information will be used in determining the ROD.

15 00 00

Comment Number 1

The Secretary's February 6, 1996, Openness Initiative announced the locations and quantities of surplus weapons-usable fissile materials. This announcement was to provide the general public with information which DOE could use in reviewing the proposed departmental actions and provide informed input to the decisionmaking process. This announcement was made with full consideration of national security.

Comment Form

United States Department of Energy

NAME: (Optional) Keith Magnus 4/11/96

ADDRESS: _____

TELEPHONE: () _____

Having publicly disclosed and released the quantities of weapons-usable plutonium and uranium at the various sites in the US, why not complete the picture by disclosing the storage locations, stockpiles, and quantities of weapons-usable plutonium and uranium at each location. The information along with the "key" to the "code book" which would allow the media to identify the locations of weapons-usable plutonium and uranium is a matter of national security. It is not a matter of solving a puzzle. It is a matter of the location of weapons-usable plutonium and uranium. The location of weapons-usable plutonium and uranium is a matter of national security. It is not a matter of solving a puzzle. It is a matter of the location of weapons-usable plutonium and uranium.

The amount of weapons-usable plutonium and uranium is a matter of national security. It is not a matter of solving a puzzle. It is a matter of the location of weapons-usable plutonium and uranium.

Thank you for your disclosure. They will be for the remaining info.

1/15.00.00

Comment ID: P0036
Date Received: May 1, 1996
Name: Sam P. Manning
Address: P.O. Box 355
Spottenberg, SC 29304
Phone: 803-582-5220

Transcription:

I had expected to be at the North Augusta Community Center meeting on April 30, however, I am in the hospital at present, and unable to come due to a heart problem. I therefore, respectfully request that a copy of the storage and disposition of weapons-usable fissile materials draft PEIS be sent to me [address]. Also please send me a copy of the stockpile stewardship and management draft PEIS. I also respectfully request an opportunity to file a statement in the next ten days, as I'm in the hospital and have been unable to prepare the report like I had requested to. I am concerned in reference to the amount of nuclear storage that may be placed on the shoulders of the State of South Carolina, as I think it's too much and presents a danger not only to South Carolina, but to North Carolina and Alabama based on the amount. I thank you, and I hope to get a message in later, but I'd be most grateful if you'd mail me that material, and also give me permission to file a statement within the next ten days. I thank you so much.

1/08.01.00

2/08.03.01

I had planned and expected to be in Augusta tomorrow afternoon to make a presentation. I regret at present I am in the hospital. I request permission to file a ten page to file a statement in the next ten days expressing my concerns in regards to the burden of nuclear radioactive waste that South Carolina has to carry. I fear that we are building up a situation that may be dangerous for the State and for the Nation due to the concentration of nuclear waste and nuclear weapons in this area. I regret that I cannot be present for the hearing on Tuesday, as I stated, I respectfully request permission to file a statement in regards to all three matters and I think, I'm hoping it will be the issues that will be raised will be raised by or considered by the leading scientists in the Nation. I thank you.

I had expected to be in Augusta on Tuesday the 29th correction on Tuesday the 30th, but I am in the hospital. I would appreciate it though if you would carry these comments, and I hope to be able to submit a more formal statement. I reference to the storage of nuclear weapons. It is my understanding that they should be stored in an area where there are very few people and that is very dry. The Savannah River Site has 500,000 people living within 100 miles of the facility. It also adjoins the Savannah River for 22 miles. The Savannah River Site at present has over 505 of the county's high level radioactive waste. It should be removed to a drier area. It should not be increased. I thank you.

P-036

08 01 00

Comment Number 1

At the request of several organizations and individuals, the public comment period was extended to a total of 92 days.

08 03 01

Comment Number 2

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

CALL-IN COMMENTS ON DOE'S FEIS

MR. MANNING: Sam P. Manning, Attorney at Law, Spartanburg, South Carolina. My address is Post Office Box 355, Spartanburg, SC. I am calling to express concern in reference to the possible location of additional nuclear weapons and waste in South Carolina. I would have attended the hearings at North Augusta on April 30th, but was in the hospital due to a heart problem of blockage of the main artery.

I will state my concern and ask that it be included in the record in regards to such matters, and I would ask -- I base my comments on this knowledge, which I believe is uncontradictable, that South Carolina at the present, based on official Government Department of Energy records, South Carolina has within its borders more high-level radioactive waste than any other State. South Carolina also, since World War II, has had this tragic problem develop. According to the National Centers for Disease Control in Atlanta, South Carolina has a higher percentage of birth defects, and of the worst birth defects, than any other State. This is when a baby is born with its brain outside the skull or when the baby has spinabifida. It is my hope that they can get thorough and complete scientific studies to try to ascertain what creates this problem.

Approximately two years ago, an official statement from the Savannah River Site made this statement, that "radiation can cause cancer, and radiation can cause birth defects," but for purposes of an environmental statement, "incidences of cancer will only be counted where the person had died, and birth defects in this or future generations will not be counted or considered."

South Carolina is a brave and wonderful State. We must have a greater emphasis on science and research, and we have to be careful in our State that our citizenry and future children are not destroyed.

I would ask that the studies dealing with the storage and disposition of weapons, fissionable materials, that the Savannah River Site not be considered as a depository for such. I would also respectfully request to inspect the

1/08.03.01

P-045

08 03 01

Comment Number 1

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

Stockpile Stewardship and Management, that Savannah River Site not be considered. South Carolina already carries a great share of the environmental burden for the Nation. Scientific studies have stated that in respect to radioactive waste problems, that they should be stored in an area that has a minimum of population and does not have a great deal of water. The Savannah River Site adjoins the Savannah River for 22 miles. It has a substantial population within 50 miles of the boundary, and for the protection of the southeastern United States and Savannah River, the emphasis and the push must be on making this area safe for the Nation. With 360,000 liters of plutonium solution, the percent of possible of nuclear chain reaction, it would be foolhardy to increase the burden. The Nation is already looking, apparently with favor, on storing 17,000 aluminum-clad fuel rods at Savannah River from 41 foreign countries. It is in the interest of not only South --

[Recorded MAY 17 at 5:42 p.m.]

P-045

CALL-IN COMMENTS ON DOE'S FEIS

MR. MANNING: This is Sam P. Manning, Attorney at Law.

I am calling now to add this to the earlier comment that I made. I have been in the hospital due to a heart blockage question, but I would like for my statements to be included in the environmental impact statement or the study. I was unable to attend the North Augusta Community Center program, which was April 30th, and I would like these comments to be included.

In reference to continuing the operation of the Pantex plant and associated storage and development of nuclear weapons, I would ask that the Savannah River Site not be considered for such. South Carolina at present, based on Department of Energy records, has more than 50 percent of the country's high-level radioactive waste. We also have the highest incidence of [inaudible] birth defects. Savannah River two years ago made the statement that radiation can cause cancer, and that radiation can cause birth defects, that they would only count cancer when somebody has died, and they would not count the birth defects in this or future generations.

What the emphasis must be on at Savannah River is adequate and full research for the protection of the general public. They have there at present 360,000 liters of plutonium solution that, according to a DOE study, presents a possible criticality event. For the protection of the southeastern area of the country -- not only the Carolinas, but Georgia and the Nation -- increased emphasis must be given on safety. Also, we must protect the young people of tomorrow.

I thank you. It is a privilege to be able to make this statement. Thank you.

[Recorded May 17 at 5:52 p.m.]

1/08.03.01

P-046

08 03 01

Comment Number 1

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

MARE, LISA K., ET AL.
PAGE 1 OF 2

DOE-Office of Fissile Materials Disposition
c/o SAIC-PEIS
P.O. Box 23786
Washington, D.C. 20026-2786

To Whom It May Concern:

We the undersigned protest the storage of nuclear waste,
plutonium and uranium in the state of Nevada.

1/08.03.01

Lisa K. Mare
Humpy Hesser
Christine M. Brooks
Shila Barlow
Rachael Jaffe

I left this letter and the enclosed
story on a clipboard in the lunchroom
for one shift and five out of eight
people signed it. We are all
residents of Nevada.

Thank you for listening
to our opinion.
R.I.

M-022

08 03 01

Comment Number 1

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

CLARK COUNTY/STATE

Shoshone leader describes deadly nuclear legacy

By Mary Henshaw
LAS VEGAS (AP) —

Shoshone spiritual leader Carlin Harvey said the scale of destruction wrought by nuclear weapons experiments at the Nevada Test Site here already should be 10-fold.

As part of his duty to the Western Shoshone, whose roots stretch back into Nevada for more than 8,000 years, Harvey warned others to heed his plea to please be more cautious from nuclear weapons are dying.

"My heritage are gone, my way are gone, all the places we used to be in for thousands years are gone," Harvey said at a joint hearing on the permanent of Energy's plan to store and eventually dispose of the radioactive remains of the Cold War at the Test Site.

What Harvey worries about is plans for storing plutonium in a 10-foot-deep hole in the Nevada Test Site for up to 10 years, or perhaps burying highly enriched uranium and plutonium mixed with high-level waste in a proposed deep disposal well in Nevada, 10 miles northwest of Las Vegas.

"If this goes off under the water table, what happens?" asked Harvey, referring to the threat of plutonium seeping the critical mass necessary for a nuclear explosion.

From the DOE's perspective, plutonium may be a waste ingredient to light water nuclear reactors in half a century. At the moment federal scientists are struggling to lock it away from outside nations or private hands interested in building bombs. Instead, it's a no-win, no-quit, they say.

"We're worried about the Shoshone," said the DOE's Howard Carter, who came to hear what local residents thought about using the Test Site for nuclear storage. When the former Soviet Union pulled out of the agreement, so did the security he said.

If the U.S. acts on enough, then the rest of the world may keep bomb-grade materials out of the wrong hands, Carter said. Britain, France, Mexico have not been named as permanent high-level nuclear waste dump, he said.

Others at the hearing in the South Expo & Convention Center called the idea of using Nevada as a national nuclear storage or dumping ground "irresponsible."

Chemical engineer Grant Hedden, whose father was project manager for Hanford from the 1950s, said the risk of storage was "not work for the DOE anymore, so if something happens officials could sue if suit is prima and a \$1 million fine."

"Anything you bury, you're going to drink, I don't care how deep," Hedden said.

He also criticized the DOE for ignoring basic scientific questions. Such as identifying accident routes with \$1,000 worth of X-rays to neutralize radioactive waste or collecting the radiation in cellophane. Cellulose can catch, maybe so gases that hold a substance in suspension.

There is no known method of destroying plutonium, with its radioactive lifespan of 24,000 years - and at that point only half the radiation is gone - Carter replied.

The U.S. has not made any plutonium since 1968.

"This is a best-the-overall, take-plencheron, rather than make more swords, project," Carter said.

"How dangerous will it be when it comes here?" Harvey asked. "How many lives are it going to take?"

To submit comments, the public can send May 7 to send to: DOE-Office of Finite Materials Disposition, at EAC-PEIS, PO Box 2776, Washington, D.C. 20546-2776.



2/09.04.02 2/09.04.02 3/14.00.00
cont.

M-022

09 04 02

Comment Number 2

As discussed in Sections 2.4.3 and 4.3.3.1.4 of the Draft PEIS, extensive precautions would be taken to ensure that criticality of the Pu emplaced into the deep borehole would not occur. There would be a site-specific study, formulation of appropriate regulations, detailed engineering studies, and computer modeling before the deep borehole facility would become operational. Section 4.3.3.1.4 of the Draft PEIS describes the environmental impacts for a deep borehole on a programmatic level so that a comparison can be done between the disposition technologies.

14 00 00

Comment Number 3

The Department of Energy applied results of a screening process along with public input to identify a range of reasonable alternatives for analysis in the Draft PEIS, and utilized technical reports and analyses from national laboratories and the industry to develop a final list of alternatives. Details were published in a separate report, *Summary Report of the Screening Process to Determine Reasonable Alternatives for Long-Term Storage and Disposition of Weapons-Usable Fissile Materials* (DOE, March 1995).

MARENGO APPLIANCES, MARYSVILLE, MI,
PAUL MARENGO
PAGE 1 OF 1

MARENGO APPLIANCES
9250 Simpson Road
FORT GRATIOT, MI 48030
FAX 810 982-0455

DEPT. OF ENERGY
FAX 202-586-2710

I wish to vigorously protest the transport
of plutonium, under the euphemism Mixed
Oxide from Hanford near Coentroy and
through Port Huron, Mich. to Bruce CANDU
in Ontario, Can.

1/08.03.01

As you so well know plutonium is the
world's most potent, hazardous material
in the world.

Please do not expose Americans,
Canadians, and the eco-system to such
a dangerous, almost immortal hazard.

1/08.03.01
cont.

Paul Marengo
1990 River Rd, Apt #106
Marysville, Mich.
48040

F-068

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentator's opposition to the use of the CANDU Reactor Alternative for the disposition of Pu. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input. This will include an appropriate level of analysis by Canada before any decision on burning Pu in a CANDU reactor is implemented.

DOE Public Meeting on
Draft Environmental Impact Statements
April 30, 1996

There are three draft environmental impact statements on which the DOE is soliciting public comments. These three documents cover plutonium storage and management:

- * The Pantex EIS considers SRS as an alternative for storage of up to 20,000 plutonium pits, most of which are currently stored at Pantex.
- * The Stockpile Stewardship and Management EIS evaluates SRS as an alternative for plutonium recovery and remanufacturing of plutonium pits to maintain the nuclear stockpile.
- * The Disposition of Weapons Usable Fissile Materials EIS considers alternatives for consolidating plutonium storage and technologies for disposing of surplus plutonium.

SRS is under consideration for a major role in each of these programs. Following are some points that relate to these issues:

- (1) A key part of any decision concerning these programs is the attitude of the neighboring communities.

SRS's neighbors in Georgia and South Carolina have supported SRS operations since the location was named 46 years ago as a weapons material production plant. Over these years, operators of SRS have been prudent, responsible, and world-class in technical ability. This community naturally welcomes additional missions of this type and jobs and money coming in, especially after so much has left the last few years. We also know and trust the people at SRS. Because of the support SRS enjoys, we urge DOE to choose SRS as the site for the future needs discussed in these EIS's.

- (2) In many cases SRS has the facilities and capability already in place for certain of the EIS alternatives, and additions needed could be installed very cost-effectively by DOE.

Storage of nuclear materials, for example, is commonplace activity at SRS, and SRS officials report that they are already planning a modular storage facility, which could be easily modified for additional capacity. The storage unit is budgeted at \$150 million, and additional storage capacity would roughly double that number.

- (3) If it is determined that the national interest requires a large scale effort to reconstitute the plutonium pits now in the stockpile, a large percentage of which are decades old and potentially unreliable, SRS has the expertise and many of the facilities to perform that job

1/08.03.01

SR-010

08 03 01

Comment Number 1

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

cost-effectively.

The capital investment of that option is about \$350 million, much of which would return to the community in the form of purchases and construction wages.

(4) Excess plutonium must be managed properly. Storage is an option, but there is also the possibility of obtaining energy benefit from plutonium by making mixed oxide fuels for use in nuclear reactors. SRS is a logical place for fuel manufacture because of the existing plutonium handling facilities and expertise onsite. This would represent construction and related expenditures of about \$350,000.

At the same time, SRS is essentially the center of applied vitrification technology in this country, and would be the ideal location for vitrifying plutonium as an anti-proliferation action. Capital costs would be about \$500 million.

1/08.03.01
cont.

(5) It must be remembered that SRS has the only active large-scale plutonium processing facility in the nation.

(6) SRS not only has the capability to perform each of these missions safely and effectively, but in fact, is the only site that which can perform all of the missions.

SRS has the technology, infrastructure support, and facilities to immediately implement the NEPA decisions. Only SRS retains large-scale functioning plutonium capability. Only SRS has experience at startup and operation of nuclear facilities with today's standards of operation. Only SRS can provide the Department the capability to merge all of its plutonium functions at a single site with billions of dollars of savings which will result from this approach.

W. Penland Mayson, Jr.
3028 Bransford Rd.
Augusta, Ga. 30909

SR-010

MCFARLAND, LEWIS L., PORTLAND, OR
PAGE 1 OF 1

Lewis L. McFarland
5885 Southwest Sixtythird Avenue
Portland, Oregon 97231
(503) 845-8170

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

RE: MOX Reactors at Hanford

Ladies and Gentlemen,

I just read a review of WPSS plan to put together a consortium of 5 utilities to run 10 reactors at taxpayers expense that would use MOX. As a citizen of the Northwest, a taxpayer and a holder of a degree in math-physics I am opposed to any such plan. The world does not need more nuclear waste to get rid of. These reactors are expensive and have proven to be quite unsafe.

1/08.03.01

Sincerely,



Lewis L. McFarland

copy: Elizabeth Furse
US Congress

M-247

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's opposition to the Reactor Alternatives. However, NEPA requires that DOE look at all reasonable alternatives and, therefore, reactor burning must be considered. Decisions on the disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

MILLER, SCOTT, BOISE, ID
PAGE 1 OF 1

Comment ID: P0019
Date Received: April 18, 1996
Name: Scott Miller
Address: Boise [ID]

Transcription:

I'm commenting on the Department of Energy's material. I'm glad they have an 800 number to comment on. I feel the state of Idaho is 1 million people strong. It's a weak state because of the population. Anything the Department of Defense or Department of Energy wants to do in the state is fine as long as there's regulations and groups that are informative of what's going on in the state. Please ask people what they think, especially the State of Idaho. It's a beautiful state and I hate to see it ruined.

1/08.02.00

P-019

08 02 00

Comment Number 1

Comment noted.

MILLS, LORING E., STEVENSVILLE, MD
PAGE 1 OF 4

Loring E. Mills
132 Eareckson Lane
Stevensville, MD 21666
Tel: (410) 643-1244

April 25, 1996

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

Subject: Comments on Storage and Disposition of Weapons-Usable Fissile Materials,
Draft Programmatic Environmental Impact Statement (PEIS), February 1996

Gentlemen;

The Federal decision on storage and/or disposition of weapons-usable fissile materials will have an environmental impact on Global Climate Change. Global climate change is the primary national and international environmental concern of the 21st Century. Surprisingly, the Draft PEIS does not effectively evaluate and compare the important items that contribute to global climate change. The PEIS should be modified and supplemented to include a comparison of the storage and disposition alternatives as they impact global climate change.

Two primary measurable and deterministic items that are very useful measures for the contribution of any action with regard to global climate change are: 1- net energy consumption and 2- net carbon dioxide releases. Calculations can be made, with deterministic values, for both of these items.

Attachment A: and Attachment B: of the PEIS Summary provide what is referred to as a Comparison of Environmental Impacts for each of the No-Action, Long-Term Storage and Disposition Alternatives. The twelve distinct environmental impact measures do not identify specifically the deterministic items that reveal the impact on global climate change. While the Department may believe it has included such environmental impacts within the listed measures, it is not apparent, nor does it distinctly identified the overall environmental impact related to this major environmental concern of the upcoming century. Clearly, a distinct and specific recognition of environmental impact on global climate change is essential to provide a complete environmental evaluation and comparison of each comprehensive alternative for such an important Federal action.

A deterministic assessment of the important items of net energy consumption and net carbon dioxide releases, that relate directly to global climate change, is not provided with these comments. However, a brief outline and relative indication of impact is provided on page 4 as an

1

1/01.00.00

M-055

01 00 00

Comment Number 1

The effluents and releases from facilities described in the reasonable alternatives section in the PEIS do not include emissions that would substantially contribute to a global climate change.

attachment for reference purposes. All alternatives and process steps, other than disposition through nuclear power plant systems, are net energy consumers and will result in additional carbon dioxide releases, adversely impacting global climate change. It can be argued that the use of weapons-usable materials in all four of the reactor fuel alternatives will result in a substantial net energy production, rather than consumption, and a corresponding reduction in carbon dioxide releases. Perhaps in the cases of Existing LWRs and CANDU reactors the weapons-usable material would simply replace uranium fuel and while there is a net energy production, there would not be a decrease in carbon dioxide releases. On the other hand, since the Department's energy forecast models gradually phase out nuclear energy production when existing nuclear energy units have completed their economic life, if the Partially Completed LWRs and Evolutionary LWRs alternatives were used to consume the weapons-usable material, clearly there would be a substantial net energy production and a significant reduction in carbon dioxide releases. The Department should proceed with a detailed determination of these items and include separate environmental impact measures related to global climate change.

The Environmental Impact Tables in Attachments A and B of the Summary provide isolated impacts for individual functions and do not provide a combined set of functions that are required for specific alternatives, along with the net environmental impact of each complete alternative. As an example, to perform disposition through Vitrification, it requires Pit Disassembly/Conversion, Plutonium Conversion, Vitrification, Final Disposal and the environmental impacts of the energy production facilities supplying energy for these functions. The EIS does not combine these functions into a set of environmental impacts for a system that would be required for disposition by vitrification. Such a combined total environmental impact should be identified for each complete alternative in addition to the individual functions. Similarly, disposition through the use of Evolutionary LWR should include the combined environmental impacts of Pit Disassembly/Conversion, Plutonium Conversion, MOX fuel fabrication, Evolutionary LWR and Spent Fuel Disposition. The net combined impacts are essential to properly assess and compare the alternatives. Each complete alternative should be identified with its combined net environmental impacts for the life cycle of the task.

A more complete discussion is needed within the PEIS to effectively describe the weapons-usable fissile materials. High-Enriched Uranium and Plutonium are unique material in several ways. The PEIS should provide a full listing of the physical, chemical, radiological and potential energy attributes of each material along with a discussion on the potential impacts of each attribute. Specifically, the heavy metal characteristics and related potential toxic aspects should be discussed. A complete discussion of the radiological characteristics and potential radiological impacts along with the known means of shielding and personal protection should be included. In addition, the equivalent potential energy content of these materials should be identified and discussed. Since the primary means of using the potential energy values within these materials is through the production of electricity, the measure could be established as equivalent mega-watt hours, or equivalent barrels of petroleum, or tons of coal that would be required to produce the same amount of electricity that can be produced with the potential energy of these materials. These attributes and characteristics should be included in a basic discussion of the weapons-usable fissile materials within the PEIS.

09 00 08

Comment Number 2

Attachments A and B of the Draft PEIS have been deleted for the Final PEIS Summary, but still appear as tables in Section 2.5 of the Final PEIS. In response to the comments received, the Summary has also been revised to include impact analysis results for combined alternative functions.

09 09 08

Comment Number 3

The general discussion of the radiation mechanism and radiation human health effects are included in Section M.2. The major human health effect from radiation would be an induction of cancer fatalities, which is a common effect for any radionuclide. Therefore, inclusion of detailed discussions of each specific radioactive material is not necessary. For hazardous chemicals, since each chemical may cause different ill-health effects, complete information on the toxicity profiles of the hazardous chemicals involved in the Fissile Materials Disposition Program is described in the Section M.3.

2/09.00.08

2/09.00.08
cont.

3/09.09.08

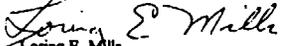
MILLS, LORING E., STEVENSVILLE, MD
PAGE 3 OF 4

An issue of concern with regard to the alternatives of using partially completed and evolutionary LWR systems to consume the plutonium, is whether there is a need for additional electricity production capacity. Clearly, new production capacity will be required for the national system within the time period of disposition. Every year since 1975, the demand for electricity within the U.S. has increased, albeit at a slower rate than prior to 1973. Also, the average age of existing electricity production facilities is increasing nearly one year for each year of time. Many of the existing facilities are becoming worn out and need to be replaced soon. Without question, new electricity production facilities are needed and will be built within the next ten years. Thus, the completion of partially completed LWRs and/or the construction of evolutionary LWRs are reasonable alternatives for the necessary additional electricity production capability. They would displace new facilities using fossil fuels and result in a significant reduction in CO₂ releases—affecting global climate.

4/08.03.01

Thank you for the opportunity to provide comments on the Draft PEIS for this important Federal action.

Sincerely,


Loring E. Mills

M-055

08 03 01

Comment Number 4

The Department of Energy acknowledges the commentor's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

Attachment to Comments by Loring E. Mills on the Storage and Disposition of Weapons-Usable
 Fissile Materials Draft Programmatic Environmental Impact Statement - Dated February 1996

**Brief Outline and Comparison Of Environmental Impact Measures
 For Plutonium Disposition Alternatives
 Affecting Global Climate Change
 Net Energy Consumption and Net Carbon Dioxide Releases**

	<u>Net Energy Consumption*</u>	<u>Net Carbon Dioxide Release*</u>
Pit Disassembly/ Conversion	MWh and Fossil Fuels Consumed	Net CO ₂ Release
Pu Conversion Fac.	MWh and Fossil Fuel Consumed	Net CO ₂ Release
Direct Disposition	MWh and Fossil Fuel Consumed	Net CO ₂ Release
Ceramic Immobilization/ Borehole	MWh and Fossil Fuel Consumed	Net CO ₂ Release
Borehole Complex	MWh and Fossil Fuel Consumed	Net CO ₂ Release
Vitrification	MWh and Fossil Fuel Consumed	Net CO ₂ Release
Ceramic Immobilization	MWh and Fossil Fuel Consumed	Net CO ₂ Release
Electrometallurgical Treat	MWh and Fossil Fuel Consumed	Net CO ₂ Release
MOX Fuel Fabrication	MWh and Fossil Fuel Consumed	Net CO ₂ Release
Existing LWR	MWh Produced & Fossil Fuel Consumed	No Change (replaces U fuel)
Partial Completed LWR	MWh Produced & Fossil Fuel Consumed	Significant Reduction in Net CO ₂ Release
Evolutionary LWR	MWh Produced & Fossil Fuel Consumed	Significant Reduction in Net CO ₂ Release
CANDU Reactor	MWh Produced & Fossil; Fuel Consumed	No Change (replaces U fuel)

* Values should include the construction of facilities and the total life cycle amount
 involved with the consumption of all surplus weapons-usable materials

MILLS-REKDAL, SHEILA, ET AL.
PAGE 1 OF 3

April 22, 1996

To the United States Department of Energy
Office of Fissile Materials Disposition
P.O. Box 23786
Washington, D.C. 20026-3786

In a democracy the voice of all people should be listened to and considered in decision-making when policies so greatly affect generations America. Being concerned with the preservation of rural America, I am seriously troubled by the Programmatic Environmental Impact Statement prepared for the Department of Energy regarding Storage and Disposition of Weapons-Usable Fissile Materials.

Although I recognize the need to secure safe, secure, long-term storage and disposition of the significant quantities of surplus fissile materials, which include plutonium (Pu) and highly enriched uranium (HEU), I believe this document fails to address very critical ~~issues~~.

Life Issues.

In reviewing the alternative for the possible future of Pantex, it becomes very evident that all of the nation's weapons-usable plutonium not in active warheads would be stored at Pantex - 20,000 pits, plus stock of the plutonium now at Rocky Flats Plant, Colorado; Hanford, Washington; Los Alamos, New Mexico; Savannah River, South Carolina; and the Idaho National Engineering Laboratory.

Before 1989, plutonium pits were never stored at Pantex. However, with the closing of Rocky Flats, Pantex is the interim storage site for at least 12,000 pits. Now this document proposes not only storing plutonium pits, but other more undesirable forms of plutonium.

Once stored at Pantex, this site is being considered for a plutonium pit disassembly/conversion facility to cut the pits and process them into metal or oxide; a plutonium conversion facility to process other types of Pu; a facility to mix plutonium with uranium to make mixed oxide fuel (MOX); nuclear power reactors to use the MOX fuel, plus storage of the spent fuel from the reactors, as well as storage of all the mixed waste generated from all these processes. It is processing of plutonium which has contributed to the national environmental degradation which saddles our nation with a \$300 billion dollar cleanup problem.

This document states there would be few negative effects from doing any and all of those activities at Pantex. What the document fails to address is the impact on the good reputation of our agricultural products. Agriculture is the one industry which has consistently sustained the Panhandle for decades.

The food chain begins here in the prime agricultural farmland of the Texas Panhandle. The most products and cereal grains produced here are shipped throughout the world; 25% of the Nation's beef is produced and processed here. The quality and wholesomeness of these products would be placed in jeopardy with the siting of these processes at Pantex. Without production agriculture this part of Texas would cease to exist. When one of every four people is employed in an agriculture related job, the loss to this High Plains trade area of those jobs would create untold problems.

A second issue the document fails to address is the location of Pantex above the Ogallala aquifer, the source of groundwater for the plains of Texas and seven other Midwestern food producing states. With high explosives, chemicals, solvents, and radionuclides, Pantex has contaminated the fine grained layer of water bearing sands above the Ogallala aquifer. With the downward migration of the recharging waters, how long will it be before the Ogallala itself will be contaminated?

Water and agriculture are the real wealth of the Texas Panhandle. Without them there would be no "Texas Panhandle." We cannot stand by and allow these resources to be compromised in any way. Food is the most important commodity we have - it must be protected.

Not all alternatives for siting these processes at other sites were analyzed in this document. Before choosing a preferred alternative, other options need to be considered. The siting of these missions at Pantex seems shortsighted and ill-conceived. The environmental impact in conjunction with these processes has the potential to devastate this food producing region.

The Panhandle is too valuable to be used as a plutonium storage, processing and waste facility.

Sincerely,

Sheila Mills-Rekdal
Randy Rekdal
Andrew Rekdal

Ellen D Mills

1/09.00.04

1/09.00.04
cont.

2/08.03.01

M-078

09 00 04

Comment Number 1

Radiological and chemical releases resulting from the Proposed Actions for normal operations would be within Federal and State regulatory limits. Therefore, the quality of agriculture in the Panhandle would not be affected, and agriculture-related employment in the Panhandle region would remain unaffected.

Also, current and future operations at Pantex are not expected to affect the water quality of the Ogallala Aquifer. However, since this aquifer is being depleted (that is, the current withdrawal is exceeding the current recharge), and since Pantex operations contribute to the depletion of the Ogallala Aquifer, impacts to the aquifer were analyzed in the PEIS.

Current and future operations at Pantex are not expected to impact the soil used for agriculture and farming in the Pantex region. All activities will be limited to Pantex and any impacts to the surrounding areas are within Federal, State, and local regulatory limits.

The PEIS includes analyses on the radiological and chemical impacts to workers and the public from both normal operations and accidents. These analyses also address the effects to local plant and animal resources as well as the effects on prime farmland.

08 03 01

Comment Number 2

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

4/29/96

To Whom it May Concerns:

Question: Who derived the most monetary profit from Rocky Flats?

Question: Who is paying for clean up?

Basic premise learned from parents:
You make a mess you clean it up; even if it means no dinner.

That is why it is so very important that this decision be made with the utmost caution and foresight. Projects of this magnitude have no place in the small ball park of political favoritism, cronyism, or any other "ism". This is too deadly a subject to be used as a political football.

This is not just a question of "not in my back yard." It is a question of where can this facility be located that it will have the least impact on the environment - socially & ecologically. ~~It seems~~ It seems the Manzano Site at Kirkland AFB would be a much safer site - security wise as well as it is not in an agricultural zone of the same proportion. It

(over)

3/01.04.00

M-078

01 04 00

Comment Number 3

Combined storage of pits and non-pit Pu at the Manzano WSA was originally eliminated as a reasonable alternative in the Draft PEIS. After considering separate storage of pits from non-pit Pu, the option to store these pits at the Manzano WSA no longer appears unreasonable. The Manzano WSA was evaluated in the Pantex EIS and Section 2.1.3 of the Final PEIS. The Final PEIS was revised to clarify the consideration of the Manzano WSA for combined storage, and a description of the WSA was included in Appendix P.

MILLS-REKDAL, SHEILA, ET AL.
PAGE 3 OF 3

appears to have been a storage facility with capability to store 30,000 pits. It would certainly seem more practical than Carson county.

I sincerely hope reason prevails in this matter; that political money grubbing is side tracked for the practical plutonium train to find it's home stations.

Sincerely,

We are the
Caretakers of this
Planet!

3/01,04,00
cont.

M-078

MINER, RUTH ALLAN AND MENDELSON, EMANUEL S.,
PHILADELPHIA, PA
PAGE 1 OF 1

48 W. Highland Avenue
Philadelphia, PA 19118-3310
June 7, 1996

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

Fax 1-800-820-5156

We vigorously oppose any and all steps to continue the production of nuclear fuel and object strenuously to the mixed oxide method of blending plutonium and uranium—the MOX process—for use in commercial reactors. This process not only involves building reprocessing facilities and altering existing reactors at public expense but will increase volumes and radioactivity of the waste produced.

1/08.03.01

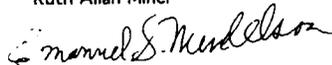
2/08.03.01

The U.S. Government, primarily responsible for the spread of nuclear materials worldwide, is now reaping the whirlwind. It is time to set another example: Stop producing radioactive waste in every way possible before another fatal holocaust occurs that can destroy us all. We hold the U.S. Government responsible for contemptuous treatment of human life. It is time to turn in a new direction.

Stop processing radioactive materials for military and energy use and stop producing nuclear waste.



Ruth Allan Miner



Emanuel S. Mendelson

F-064

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentator's opposition to the Reactor Alternatives. However, NEPA requires that DOE look at all reasonable alternatives and, therefore, reactor burning must be considered. Decisions on the disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01

Comment Number 2

The Department of Energy acknowledges the commentator's opposition to the Reactor Alternative using MOX fuel. Decisions on disposition of weapons-usable fissile materials will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

MONTEREY INSTITUTE OF INTERNATIONAL STUDIES,
MONTEREY, CA, TARIQ RAUF
PAGE 1 OF 7

Date: Wed, 1 May 1996

Subject: FORUM Form - incoming

serial_no = 165

MailTitle = FORUM Form - incoming

name = Tariq Rauf
title = Director IONP/CNS
company = Monterey Inst. of Int'l. Studies
addr1 = 425 Van Buren Street
addr2 = Center for Nonproliferation Studies
city = Monterey
state = CA
zip = 93940
phone = 408/647-3504
fax = 408/647-3519
email = trauf@miis.edu
ctype = public
subject = WPu Disposition

** The following is the text of the Author's Comment.

MEGATONS TO MEGAWATTS:
ELECTRICITY FROM THE COLD WAR'S LEGACY

by

Tariq Rauf

The world's seven most advanced industrial countries -- the Group of Seven (G-7) -- will be meeting at the Moscow Summit on Nuclear Safety and Security, on 19-20 April, together with Russia to discuss the safety of Soviet-designed nuclear power reactors and the safe disposal of nuclear materials from dismantled nuclear warheads.

The Problem

With the end of the Cold War and the collapse of the former Soviet Union, far reaching nuclear disarmament agreements are resulting in the dismantling of thousands of nuclear warheads. By the turn of the century some 30,000 atomic bombs will have been dismantled, yielding hundreds of metric tonnes of weapon-grade fissile (or nuclear) materials -- highly enriched uranium (HEU) and

E-007

plutonium. Ironically, the fissile materials from dismantled warheads will still continue to threaten humanity through the dangers of nuclear terrorism, theft, accidents, or re-use in new warheads. This is particularly true in Russia, where centralized control and physical security of nuclear materials remain woefully low and former Communists and nationalists are rising in popularity.

While both HEU and plutonium can be utilized to make nuclear warheads, there are two important differences between them. The first is that HEU can be diluted with other isotopes of uranium to yield low-enriched uranium (LEU), which cannot sustain the fast-neutron chain reaction required for a nuclear explosion. LEU is the fuel for most of world's nuclear power reactors, but heavy water reactors such as the Canadian (deuterium-uranium) or CANDU reactors use natural uranium. Re-enriching LEU to weapon-grade or HEU requires complex enrichment technology, which is both costly and not easily accessible. Plutonium, in contrast, cannot be diluted with other isotopes of plutonium to render it unusable for weapons. It must either be burnt in nuclear reactors, or placed in long-term storage -- an unproved technology -- with all the attendant risks of theft or accident (particularly in Russia).

Recognizing the risks of poorly guarded weapon-grade nuclear materials in Russia, the United States is buying 500 tonnes of weapons-grade uranium from dismantled Russian warheads and is using the uranium after dilution as fuel in its commercial power reactors. The danger from Russian weapon-grade plutonium still remains to be addressed.

Disposition Options for Weapons Plutonium

Expert studies commissioned in the United States recommend four principal options for short- to medium-term management of excess weapons plutonium: none of these options eliminate the danger, all they can achieve is to reduce the risks. Moreover, these options do not reduce the inventory of excess weapons plutonium.

Plutonium disposition options need to:

- minimize the time that plutonium is stored in forms readily usable for nuclear weapons;
- preserve safeguards and security during the disposal process, while maintaining the same high level of security and accounting applied to nuclear weapons in storage, i.e. the "stored weapons standard";
- render plutonium into a form which is as difficult to recover for making nuclear weapons as is contained-plutonium in spent fuel from nuclear reactors, i.e. the "spent fuel standard"; and
- meet the highest standards for public and worker safety, as well as environmental protection.

E-007

MONTEREY INSTITUTE OF INTERNATIONAL STUDIES,
 MONTEREY, CA, TARIQ RAUF
 PAGE 3 OF 7

Several options can be considered for achieving these objectives. Exotic options such as sending the plutonium into the Sun (for incineration) or into deep space aboard rockets, or using surplus nuclear warheads to destroy asteroids in space (on projected collision paths with Earth), or underground nuclear explosions to also incinerate other hazardous materials (including chemical weapons), or sub-seabed disposal, or dilution in the open ocean, or disposal in the Earth's magma, can all be ruled out as either they do not meet the basic requirements of human and environmental safety or are inimical to existing arms control processes. Workable options include:

fabrication and use as mixed-oxide (MOX) fuel, without reprocessing, in existing or modified nuclear power reactors;

vitrification, that is combining the plutonium with high-level radioactive wastes as these are melted into large glass logs for long-term underground storage; and geologic disposition or burial in deep boreholes -- the last two options require further study.

1/08.03.01

These options are currently under consideration in the United States and Russia. The principal concern is to prevent accidents and the misuse of plutonium in an unstable Russia, and to find ways acceptable to Russia for safely and securely disposing of this material. Until recently, Russia regarded the plutonium as having an economic value and thus was not amenable to plutonium disposition. However, after visiting Canada last October, Russia's minister for atomic energy, Viktor Mikhailov, is now considering ways of dealing with excess weapons plutonium including Canadian assistance.

E-007

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's support for the disposition alternatives. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

Reactor Burn up of Plutonium

Plutonium after it has been mixed with depleted uranium can be used in commercial power reactors, in the form of mixed-oxide (MOX) fuel. Many of the world's existing light-water reactors (LWRs) could use MOX fuel, but because of their particular design they can be refuelled only after costly and sometimes lengthy shutdowns. Given the poor safety culture and weak nuclear security in Russia, it would not be desirable to encourage plutonium storage or use in Russia given the high risks of accidents and theft. Japan and Western Europe also would not be suitable on a number of grounds, including lack of political acceptability (as far as both the US and Russia are concerned) and for non-proliferation reasons because of their plutonium reprocessing programs. This leaves Canada as the only potential candidate acceptable to both Russia and the US to assist in plutonium disposition.

Canadian CANDU Reactors

Canada's (deuterium-uranium) CANDU reactors offer the best technical possibility for the mission of eliminating weapons plutonium, because the reactor design inherently allows for the handling of full-MOX cores and would involve no change from the usual physics of the reactor. CANDU reactors are refuelled on-line, that is, they do not have to be shut-down for refuelling as do LWRs. Further, CANDUs use a "once-through" fuel cycle which, in principle, would make them an efficient burner of MOX derived from weapons plutonium; and the fissile content would be burned down to a lower level than in a LWR, with the extraction of more energy per kilogram of plutonium. CANDU fuel is produced in smaller and simpler units than those typical of LWRs, thus potentially reducing the cost of fuel fabrication, which is a substantial fraction of the total cost of MOX use. CANDU reactors have the best safety record in the world -- there are 21 CANDUs operational in Canada. Recently, a CANDU reactor, operated by Ontario Hydro, set a world record for continuous operation and electricity production. Atomic Energy of Canada Limited (AECL), the designer and builder of CANDU reactors is experienced in dealing with MOX fuels and is in a position to supply technical expertise in support of plutonium burn up in CANDUs. The CANDU option meets all of the criteria for safe and effective plutonium disposition.

Two of the current standard design CANDU reactors could transform 50 metric tonnes of Russian weapons plutonium into spent fuel in 25 years. Another two CANDU reactors would be needed to burn up a matching 50 tonnes of excess US weapons plutonium. The Bruce Nuclear Power Plant in Ontario, located on Lake Huron north-east of Detroit, has eight operational power reactors, of which two or four could be used to burn excess weapons plutonium, as soon as MOX from

2/08.03.01

E-007

08 03 01

Comment Number 2

The Department of Energy acknowledges the commentator's support for the CANDU Reactor Alternative. Decisions on the disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

excess weapons plutonium becomes available. MOX fuel burned in Canadian CANDUs would be fabricated as fuel either at a suitable facility in the US, or in Russia, before being transported to Canada. A new fuel bundle design, under consideration, could reduce the number of MOX fuel bundles by nearly 50 percent, thus making for a significant economic and transportation advantage.

Transportation

Existing modes of road and rail transportation could be used to bring MOX fuel bundles into Canada from the US. In effect, the "safe, secure transports" (SST) routinely used to ship containers of special nuclear materials within Canada and the US could be used for MOX. Shipments of MOX fuel bundles in special containers from Russia could be done safely and efficiently by either commercial or military transport aircraft.

Environment, Health, and Safety

Instead of mining and refining some 6,000 tonnes of uranium per year, the use of MOX would consume 2 tonnes of weapons plutonium together with some 250 tonnes of depleted uranium waste. The amount of spent fuel produced would decrease by about 10% over the use of natural uranium. While plutonium products cause anxiety about health and safety considerations, it is often forgotten that very much greater quantities of permanently toxic elements such as arsenic, cadmium, and lead are stored and disposed of with much less concern. While plutonium compounds are both fissile and toxic and must be stored and handled with care, epidemiological studies have not demonstrated adverse health effects in humans.

Canada's Role

Though Canada was a member of the war-time Manhattan Project to develop an atomic bomb, it was also the first country to voluntarily give up its expertise and capability to develop nuclear weapons and since then it has consistently and actively contributed to preventing the spread of nuclear weapons and reducing the nuclear danger.

The potential use of Canadian CANDU reactors to help in the safe and efficient disposition of one of the Cold War's most enduring legacies -- long-lived weapon-usable fissionable materials -- offers a unique opportunity to make a significant contribution to making the world a safer place by converting megatons to megawatts.

[Tariq Rauf (a specialist in Canadian and international security) is currently Director of the International Organizations and Nonproliferation Project at the Monterey Institute of International Studies in California.]

E-007

**MONTEREY INSTITUTE OF INTERNATIONAL STUDIES,
MONTEREY, CA, TARIQ RAUF
PAGE 7 OF 7**

Monterey: 31 March 1996
647-3504
E-mail: <trauf@miis.edu
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END comment

Tel: (408)
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E-007

APRIL 31, 1996

David Montgomery
(206) 342-1349 work
(206) 793-3583
35825 164th St SE.
Sultan, WA 98294

DISPOSAL OF U S PLUTONIUM

The Clinton administration has put 50% of all our plutonium under the inspection control International Atomic Energy Agency (an agency of the U.N.). The Department of Energy is now taking input on what to do with this plutonium. A meeting will be held in Seattle on Tuesday April 30, 1995 (flyer included) that is sponsored by the Department of Energy, Department of ecology and various disarmament groups like Physicians For Social Responsibility to get citizens input on various plans for this plutonium.

There are several problems with this plan

- 1) We are the only nuclear power that is disposing of it's plutonium from nuclear weapons. This critical material produced at great cost over the cold war may be needed again when the communist win the presidential elections in Russia this June. This option of reassembling nuclear weapons should be available to the next President.
- 2) The current operation of the U.N. inspection of U.S. nuclear materials. I believe is illegal. President Clinton has justified these inspections based on Article VI of the Non-Proliferation Treaty, which calls for negotiations to achieve universal nuclear disarmament. We have forgotten that when President Nixon submitted the Non-Proliferation Treaty to the U.S. Senate he stated it would prohibit the International Atomic Energy Agency from any inspections dealing with our national security. The treaty has not been modified to allow these inspections.

1/01.06.00

2/01.06.00

David R. Montgomery

M-215

01 06 00

Comment Number 1

The United States is not likely to proceed significantly with Pu disposition unless Russia takes reciprocal action simultaneously. Both the United States and Russia have inventories of Pu, surplus to defense needs. The United States is retaining necessary quantities of Pu under the Stockpile Stewardship and Management Program to guarantee that future defense needs of the Nation are assured.

01 06 00

Comment Number 2

Comment noted. IAEA considerations are not a part of the environmental analysis. However, IAEA is considered in the technical and nonproliferation analysis and will be integrated in DOE's decisionmaking process.

[28] Feb. 4

Public Papers of the Presidents

intelligence and deep sense of compassion made an indelible impression on all who knew him.

Mrs. Nixon joins me in extending deepest sympathy to his wife and family.

news: Mr. McCall died on February 4 in Atlanta, Ga., at a heart attack at the age of 70. He had been editor, and since 1965 publisher, of the Atlanta Constitution. In 1958 he won the Pulitzer Prize for editorial writing.

29 Message to the Senate Requesting Advice and Consent to Ratification of the Treaty on Non-Proliferation of Nuclear Weapons. February 5, 1969

To the Senate of the United States:

After receiving the advice of the National Security Council, I have decided that it will serve the national interest to proceed with the ratification of the Treaty on Non-Proliferation of Nuclear Weapons. Accordingly, I request that the Senate act promptly to consider the Treaty and give its advice and consent to ratification.

I have always supported the goal of halting the spread of nuclear weapons. I opposed ratification of the Treaty last fall in the immediate aftermath of the Soviet invasion of Czechoslovakia. My request at this time in no sense alters my condemnation of that Soviet action.

I believe that ratification of the Treaty at this time would advance this Administration's policy of negotiation rather than confrontation with the USSR.

I believe that the Treaty can be an important step in our endeavor to curb the spread of nuclear weapons and that it advances the purposes of our Atomic Energy

Peace program which I have supported since its inception during President Eisenhower's Administration.

In submitting this request I wish to endorse the commitment made by the previous Administration that the United States will, when safeguards are applied under the Treaty, permit the International Atomic Energy Agency to apply its safeguards to all nuclear activities in the United States, exclusive of those activities with direct national security significance.

I also reiterate our willingness to join with all Treaty parties to take appropriate measures to insure that potential benefits from peaceful applications of nuclear explosions will be made available to non-nuclear-weapon parties to the Treaty.

Committed with my purpose to "strengthen the structure of peace," therefore, I urge the Senate's prompt consideration and positive action on this Treaty.

RICHARD NIXON

The White House
February 5, 1969

MURPHY, JIM, AMARILLO, TX

PAGE 1 OF 1

I am Jim Murphy and I have been an Amarillo resident since 1977. I am active in a variety of community organizations and am on a number of boards including a local public school board.

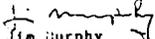
I am here tonight to respectfully express an emphatic "No!" to any expansion or added roles at Pantex that include plutonium processing or nuclear waste storage. Although such expansion or new "missions" may have some positive economic benefits for the area, there would be economic risks as well.

1/08.03.01

At any rate, it is apparently necessary to occasionally reiterate that there are some things that money can't buy and some things in life that are more important than economic bottom lines.

I count amongst these things a safe and clean environment for our traditional agricultural and cattle-raising industries and ways of life, a clean aquifer and a safe and healthy environment for our children and grand children. Plutonium processing and/or nuclear waste storage are hostile and unfriendly to those environments and ways of life and not worth whatever the price may be.

The tantalizing apple of prosperity beckons; but when it is the fruit of the plutonium tree, we best look elsewhere.


Jim Murphy
6711 Columbia Ln.
Amarillo, TX 79109

4-22-96

TX-056

08 03 01

Comment Number 1

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

3-469

Comment Documents
and Responses

MURRAY, ALEXANDER P., GAITHERSBURG, MD
PAGE 1 OF 5

24305 Clematis Drive,
Gaithersburg, MD 20882,
May 3, 1996.

DOE - Office of Fissile Materials Disposition,
c/o SAIC PEIS,
P.O. Box 23786,
Washington, DC 20026-3786.

Re: DOE/EIS-0229-D, Storage and Disposition of Weapons-Usable
Fissile Materials Draft Programmatic Environmental Impact
Statement, dated February, 1996.

Dear Sir/Madam:

Thank-you for the opportunity to comment upon the subject environmental impact statement. The PEIS covers an important area that DOE needs to address with a reasonable alternative (or alternatives) in a timely manner with cost effective means. My comments follow:

1. The alternatives are of different categories and need to be clarified and explained better. For example, the long-term storage alternatives are site variations, while the disposition alternatives include disposal, wasteform, and reuse variations. The draft EIS should try and follow the classic categories of storage, reuse/recycle, and disposal. These should be displayed graphically and show endpoints (e.g., plutonium disposal site, Federal repository). There may also be other subcategories based on plutonium/HEU form and facilities (e.g., igloo, bunker, vault). The analyses also should accommodate the fact that reactor alternatives are reuse options producing a valuable resource; usually EIS's include the value of the resource (avoid latent fatalities, say by avoidance of emissions and consumption of other resources) or use a difference type analysis. Ideally, this should be summarized in a table in the Summary. 1/01.00.00
2. The proposed action is stated to consist of long-term storage and disposition (i.e., the two main categories of alternatives). This is contradictory and confusing. While DOE often defers the specific preferred/proposed action to the final EIS, the proposed action is usually more definitive than the two principal categories of alternatives. DOE needs to pick one or the other, and the text should be modified to reflect that choice. 2/01.00.00
3. The draft does not adequately discuss the type of plutonium. This includes physical (e.g., pit, classified shape, unclassified shape, billet, powder) and chemical (e.g., metal, 3/01.04.00

M-150

01 00 00 Comment Number 1

Comment noted. The Final PEIS text format is the same as that suggested, and information requested is already in the text (Chapter 2). As described in Appendix H of the Final PEIS, DOE is still evaluating the suitability of a repository site. An expanded discussion of avoided environmental impacts has been included in Section 4.9 of the Final PEIS.

01 00 00 Comment Number 2

Separating storage from disposition would not effectively meet the purpose of and need for the Proposed Action. Planning for storage of the surplus Pu pending disposition is closely related to that for the disposition activities and would be affected by the technology(ies) selected to implement the Proposed Action. DOE is confident that a decision can be made on disposition technologies at this time, and is continuing to expand a range of small scale tests and demonstrations of some Pu disposition technologies to remove uncertainties in viability.

01 04 00 Comment Number 3

Most of the Pu addressed in the PEIS is in either a metal or oxide form. Some of the Pu metal is in a classified pit form. The form, shape, and location of the Pu materials does not have a major bearing on the technologies chosen for disposition or the siting of those technologies. Although some of the Pu has chemical or isotopic constituents that would make it unsuitable for use in MOX fuel, it is a relatively small amount of the total Pu inventory. The immobilization technologies could be used for disposition of all forms of Pu.

oxide, ceramic, glass, impurities) forms. This is important because it can affect the viability of certain alternatives vis-a-vis others, and should be discussed better.

3/01.04.00
cont.

4. The EIS appears partial against the reactor and MOX option by including old data and omitting actual operating results. Presented reactor and fuel characteristics in the EIS appear to be from the 1970's and are completely out of date. The EIS presents cases that would imply lower throughputs and longer completion times with a reactor MOX option as compared to the other options. This is an artifact of the writers' assumptions and contradicts actual experience (i.e., the writers assumed 2-4 reactors, but Europe currently has some 20 reactors licensed and burning MOX, and the United States currently has some 100 plus reactors running, with several utilities willing to investigate MOX cycles with the government). The text includes several misleading and/or incorrect statements:

- For MOX use, you don't convert the reactor, you change the fuel. The text should also mention 30% versus 100% MOX use (the latter is essentially the uncompleted LWR alternative).
- The evolutionary/advanced LWR designs plan to use LEU fuel like current reactors. Use of MOX constitutes the same option as for current reactors, although a new reactor of any type can be tailored for MOX use.
- The use of terms like "pay a premium for such MOX fuel" should be explained and referenced - European experience indicates comparable or slightly lower costs with MOX usage.
- The text should also explain the scheme assumed - 30% vs. 100% load etc. (the text implies 100% is used for all of the reactor options).

4/06.01.08

Furthermore, the reactor-MOX alternative is the only option with an analogue operating on an industrial scale, under full IAEA safeguards and external regulatory practices. The correct facts on the reactor-MOX option need to be included in the EIS so that the public and the policy-makers are informed with current, accurate information and practices.

5. The experience of the Europeans and other countries with plutonium disposition is essentially neglected by the EIS. The EIS incorrectly states that Europe (Euratom facilities) has no "excess" MOX capacity. Europe has selected the reactor-MOX option for civilian plutonium, and is recommending the same route for excess weapons-usable fissile materials. To date, some 400 tonnes of MOX fuel, containing some 20 tonnes of plutonium, have been manufactured and irradiated in reactors. Over twenty commercial nuclear reactors in Europe are currently licensed and using MOX fuel. Europe currently has an operating MOX fabrication capacity of over 100 te/yr as MOX (about 6-7 te/yr as plutonium). The Europeans have built two new facilities (Melox and SMP) which are increasing the MOX capacity to close to over 300 te/yr. Both facilities have

5/06.01.08

M-150

06 01 08

Comment Number 4

Comment noted. The Final PEIS was revised to reflect comments received.

06 01 08

Comment Number 5

Comment noted.

MURRAY, ALEXANDER P., GAITHERSBURG, MD
PAGE 3 OF 5

space for an additional line of some 50-60 te/yr each and have offered this space (for a fee of course) for disposition of excess weapons-usable fissile materials via MOX fabrication and burning in power reactors. Capacity does not appear to be a limiting factor, and the report should reflect this. All of these facts need to be included in the EIS, perhaps as a separate section. The EIS should also discuss the use of the European experience in the U.S., such as by construction of a Melox or an SMP in our country, or use of European-MOX experience in licensing reactors.

6. Furthermore, the reactor-MOX option produces a benefit (electricity and less resource usage), isotopically modifies the plutonium so it is essentially useless for weapons, and renders it self-protecting (the ANS has issued a white paper making these points and supporting the reactor-MOX approach). It also destroys a significant percentage (50% plus) of the original plutonium. None of the other alternatives has these benefits. This discussion is not included in the text, but should be included in the final EIS.
7. Some form of "stabilization" is needed for long-term storage; this is only briefly mentioned in the text. It is unlikely that fifty-year storage of pits will be "acceptable" to the public, to the IAEA, and to arms control treaties. "Stabilization" will probably constitute the greatest fraction of the storage impacts. Stabilization for storage may also be a subset of stabilization for disposition. This needs to be discussed in the text.
8. The draft suffers from the "build new things" syndrome, particularly for the consolidation alternative. Existing facilities do not seem to receive equal consideration. I would speculate that there is probably adequate room in FMEF for all of the material (I note that FMEF is heavily shielded and should not require any additional shielding). There are also other facilities within DOE that are not even mentioned. These include DAF, E-MAD, and R-MAD at NTS, and the TAN and ICPP areas at INEL. The Barnwell plant adjacent to the SRS also has large vaults and cells suitable for plutonium/HEU storage and/or processing. These should be mentioned (they are viable facilities for operations that would be required under this EIS). The EIS should also distinguish between facilities that are suitable but need equipment and new facilities - 75-80% of the time and costs are associated with the building, not the equipment.
9. Information on LANL and LLNL facilities is not included, but is stated to be added to the final EIS. Usually, sites not mentioned in the draft do not show up in the final EIS.
10. It seems reasonable to exclude U-233 from this EIS. However, the stated reasons appear to refer to nonpurified and irradiated U-233, not to pure U-233, and could also be applied

5/06.01.08
cont.

6/06.01.08

7/02.00.08

8/01.02.00

9/01.04.00

10/01.04.00

M-150

06 01 08 **Comment Number 6**

Comment noted.

02 00 08 **Comment Number 7**

A basic assumption for this environmental analysis is that the materials are already in a stabilized form before they are received for storage. Actions taken for materials stabilization are covered by analyses under the Environmental Management Program.

01 02 00 **Comment Number 8**

The Department of Energy looked at many of the facilities you mentioned in assessing the Upgrade at Multiple Sites Alternative. These facilities must meet the selection criteria which include cost-effectiveness, timeliness, and technical viability, and the facilities would not be used for other missions. For example, the FMEF is included as a reasonable alternative at Hanford.

01 04 00 **Comment Number 9**

One and one-half tons of Pu material located at LANL was designated as surplus. None of the Pu material located at LLNL has been designated as surplus. Although LANL is not a candidate site for either long-term storage or disposition of surplus Pu, it is analyzed in the Final PEIS under the No Action Alternative since this material would remain at LANL. The Draft PEIS mentions that the LANL No Action Alternative for storage would be addressed in the Final PEIS.

01 04 00 **Comment Number 10**

The Department of Energy continues to maintain the same position presented in the Draft PEIS. Since uranium-233 (U-233) disposition is not ready for a decision, DOE is not currently proposing to take action on the disposition of surplus U-233, which will continue to be stored at current locations.

to plutonium. (The handling properties of purified, unirradiated U-233 are similar to HEU.) The rationale should be explained better.	10/01.04.00 cont.
11. In the EIS, the HLW repository should be referred to as the Federal repository (for spent fuel and HLW - its main function is actually for commercial SNF). Also, there should be a statement and reference for the CANDU MOX SNF staying in Canada after discharge.	11/12.00.00
12. It is unclear why the immobilization alternative has a 5 te/yr (plutonium) capacity, while the MOX plant/reactor alternative is around 2-3 te/yr (the Melox and SMP each have a capacity of 120 te/yr MOX - about 6 te/yr plutonium per plant). Capacity and schedule would appear to favor reactor MOX use. These points should be discussed, and, at a minimum, the capacity of MOX should at least equal that of the other alternatives for consistency.	12/01.02.00
13. The EIS should elaborate upon statements such as "... no waste forms are currently licensed for disposal in an HLW repository." This is half true because the repository is not licensed. However, vitrified wasteforms are generally recognized by the regulators as being acceptable - the EPA has even determined that vitrification constitutes BDAT for HLW. These points should be brought out.	13/09.11.08
14. The site and facility sizes seem huge for the operations involved - these need to be explained and the bases presented. The basis for the one mile buffer zone needs explanation. The MOX sites in Europe do not require 2,200 acres, and the disparity needs explanation.	14/09.01.08
15. The EIS appears to be naive on spent nuclear fuel management. For example: - Dry storage technologies already exist - they don't require development. - Cooling time in the pool varies with fuel history and dry cask design; 5 years (not 10 years) is typical, and this should be pointed out in the text. - The additional SNF assemblies due to MOX is puzzling, and should be explained. The European experience indicates that the irradiation times and quantities for MOX assemblies should be the same as for LEU assemblies. - Typical fuel cycles are 18-24 months, not 12-18 months.	15/06.00.08
16. There should be a check for consistency and the use of the same bases throughout the document (e.g., time, disposition rate etc.)	16/16.00.00
M-150	

12 00 00

Comment Number 11

It is true that commercial spent nuclear fuel constitutes the majority of the waste for disposal in a geologic repository. Since this analysis assumes a hypothetical operating repository, DOE elected to refer to it as a HLW repository. Disposal options for CANDU spent nuclear fuel are discussed in Section 2.4.5.5 of the PEIS.

01 02 00

Comment Number 12

The assumptions for throughput of the various facilities are based on the lifecycle of the entire alternative, not just how fast the facility can process the materials. Analyses of the cost, schedule, and technical aspects of the various alternatives are presented in a separate document available for public review beginning in late July 1996.

09 11 08

Comment Number 13

A sentence has been added to Section H.1 of the Final PEIS to acknowledge the fact that the EPA did announce in a *Federal Register* notice in June 1990 that vitrification constitutes the best demonstrated technology available for HLW.

09 01 08

Comment Number 14

Land area requirements during operation for disposition alternatives appear to be much greater than for storage alternatives. This is attributed to the site-specific nature of the storage alternatives which incorporate the infrastructure and environmental features of the DOE analysis site versus the greenfield condition of most disposition alternatives. Additionally, the need for buffer zones would increase the total land area requirement. Since all storage alternatives would be situated on a DOE site, buffer zones are already established. The greenfield requirement for a 1.6-km (1-mi) buffer zone area would be reduced at some DOE storage sites where existing site conditions preclude compliance. Additional buffer zone areas, as part of the operations total land area requirement, would not be added to the storage alternatives.

17. The impacts need to be verified and their consistency checked. For example, the reactor-MOX options are shown as having a high power consumption, which is incorrect because there is a large, positive power production (if you will, "negative consumption"). Some other impacts of reactor-MOX alternatives also appear anomalous (e.g., land use, LCFs). Again, a difference-type analysis focusing just on the MOX effect would be beneficial and correct.

17/06.01.08

I notice that a 60 day comment period has been allotted for this EIS. This seems unrealistically short for an EIS of this importance and inconsistent with other recent EISs, which typically allow 90 or 120 days for comments. If possible, it would be beneficial if an additional 30 days could be allowed for public comment.

18/08.01.00

The EIS has the beginnings of a good document and the comments should help the writers complete it. I greatly appreciate the opportunity to comment on this EIS, and please feel free to contact me if you have any questions.

Sincerely,
Alex Murray
Alexander P. Murray.

M-150

Buffer zones relate to such issues as providing sufficient access around building exteriors to accommodate emergency vehicles, as well as open space for security patrols. Distances from facilities to the site boundaries and between facilities are based on technical, safety, and security considerations. The buffer zone is not necessarily used exclusively as open space. Some support facilities (for example, sanitary landfills or stormwater management ponds) may be located in the buffer zone. The need for buffer zones would be determined during site-specific reviews that would follow this PEIS. Siting criteria would generally follow DOE Order 430.1, *Life Cycle-Asset Management*.

As a greenfield site, the MOX Fuel Fabrication Facility Alternative would require approximately 890 ha (2,200 acres) during operation to accommodate the facility and at least a 1.6-km (1-mi) buffer zone. However, the operating facility (that is, MOX Fuel Fabrication Facility, support facilities, roads, and parking lots) would only disturb approximately 81 ha (200 acres).

06 00 08 Comment Number 15

Corrections/changes have been made to Chapter 2, Sections 4.3.5.2.10 and 4.3.5.3.10 of the PEIS.

16 00 00 Comment Number 16

A consistency check was performed on the Final PEIS as a part of the Quality Assurance Procedure.

06 01 08 Comment Number 17

Comment noted.

08 01 00 Comment Number 18

At the request of several organizations and individuals, the public comment period was extended to a total of 92 days.

COMMENT FORM

These comments apply to the Storage and Disposition Draft PEIS

NAME: Joy Myers
ADDRESS: HC 62 Box 41, Dubois, ID 83423
TELEPHONE: (208) 374-5359

As the criteria against which to judge potential alternatives were based on the President's nonproliferation policy, it appears to me that nonproliferation aspects should be addressed in the Storage and Disposition Draft PEIS specifically as they relate to each alternative. Page S-5 of the Summary states: "The criteria include nonproliferation; security; environment, safety, and health; timeliness and technological viability; cost-effectiveness; international cooperation; and peaceful beneficial reuse whenever possible." Analysis of the alternatives addresses only a few of these criteria.

For instance, the Long-term Storage Alternatives all appear to violate the stated criteria. Leaving surplus fissile material in its present form and in long-term storage sets a poor example for both nonproliferation efforts and international cooperation. Would the United States be content if the former Soviet Union agreed to merely place its surplus fissile material into long-term storage? Is this really any different than stockpiling? While it is presumable that consolidation and/or collocation would help address the security criterion, such analysis is missing from the PEIS. A discussion of the cost-effectiveness of upgrading or constructing long-term storage facilities without actually eliminating surplus fissile material is also missing. No where is the preference for peaceful beneficial reuse mentioned.

Under the Disposition Alternatives, much of the above paragraph also applies to the Deep Borehole Direct Disposition Alternative. Assumedly, security considerations may be improved, but this approach is in reality merely another version of long-term storage. By using a generic site for analysis, the PEIS ignores the problems inherent in attempting to locate and open such a facility anywhere in the United States. Are areas which meet the deep borehole standards even available? Such practical and political considerations need, at least, a mention. The Deep Borehole Immobilized Disposition Alternative is an improvement, but it also neglects to consider the peaceful beneficial reuse criterion in addition to the problem of attempting to site such a waste facility.

Based on the environmental, safety and health information contained in the PEIS, the Electrometallurgical Treatment Alternative is clearly preferable in the immobilization category. Impacts on waste management at the INEL appear to be small; and, according to Governor Batt's statement, surplus fissile material would be acceptable under the conditions of the Idaho Agreement if it were shipped to the INEL for treatment. The ability of this process to produce LEU from HEU has the potential for meeting both the nonproliferation standard as well as the beneficial reuse standard. In addition, the process could have the capability of immobilizing the forms of PU not suitable for MOX fabrication.

1/01.06.00

2/01.04.00

3/07.01.00

4/01.05.00

5/04.03.00

6/04.02.00

7/08.03.01

F-005

01 06 00 Comment Number 1

The purpose of the Proposed Action is, in part, to establish the technical and program infrastructure that will enable the United States to take unilateral action or negotiate reciprocal actions with other nations for the disposition of surplus weapons-usable Pu. This PEIS addresses the environmental impacts of the reasonable alternatives for DOE's Proposed Action. Analyses of the cost, schedule, technical, and Nonproliferation Policy impacts are described in separate documents to support DOE's ROD. The documents related to technical, cost, and schedule analyses were made available for public review beginning in July 1996. The nonproliferation analysis was made available to the public beginning in October 1996. DOE also conducted a series of public meetings, prior to the issuance of the Final PEIS, to discuss the analysis of the Nonproliferation Policy as it relates to the Proposed Action and alternatives.

01 04 00 Comment Number 2

The intent of DOE's Proposed Action is to provide storage for the nonsurplus weapons-usable fissile materials and for surplus Pu materials pending disposition, since the disposition action would take time. The impacts of the Proposed Action and reasonable alternatives on implementation of the President's Nonproliferation Policy are analyzed in a separate document in support of the ROD.

07 01 00 Comment Number 3

Cost data, along with technical and schedule data, was provided in Technical Summary Reports of both storage and disposition beginning in late July 1996.

01 05 00 Comment Number 4

Additional benefits were included in the criteria for the screening process which led to the alternatives which were analyzed in the PEIS.

04 03 00 Comment Number 5

As noted in Chapter 2 of the PEIS, identification of a suitable site for a deep borehole is beyond the scope of this PEIS. Regarding suitable geology,

Comments - Storage and Disposition Draft PEIS
Joy Myers

Page 2

Based on the criteria identified in the PEIS, the best approach for disposition of surplus weapons-usable fissile material is to convert it for use in a reactor. No other alternative meets the standard of "peaceful beneficial reuse whenever possible" -- and the PEIS acknowledges it is possible. Also, converting surplus weapons-usable material into reactor fuel would meet the Spent Fuel Standard and reduce proliferation risks. This will be the most likely approach in other countries, and the PEIS would benefit from a discussion of international cooperation vis-à-vis standards for and methods of disposition of fissile material.

8/06.00.08

9/01.03.00

Perhaps the largest flaw apparent in the PEIS is the reluctance of the Department of Energy to decide whether weapons-usable fissile material is or is not waste. While the PEIS states that this material is not waste, three-fourths of the PEIS treats its disposition as if it were. Immobilized disposition merely confirms it is waste. Only reuse will demonstrate that it is not.

10/01.02.00

The argument used at the workshop that utilities are "not going to pay to get this stuff ... we may have to pay them to take it" misses the point. Reuse holds the only potential for beneficial use. Taxpayers are going to pay equally or more for the other proposed alternatives through mortgage, immobilization, and disposal costs with no prospect of return. This seems like an ideal opportunity for the Department of Energy to give some credence to the "Energy" in its title and mission.

11/07.02.00

F-005

Section 3.9.5 notes potential host rock media for a deep borehole site in the contiguous United States.

04 02 00 **Comment Number 6**

While the Borehole Alternative offers no potentially beneficial use of this material, this lack of access makes it difficult to divert to weapons use.

08 03 01 **Comment Number 7**

The Department of Energy acknowledges the commentor's support for the Electrometallurgical Treatment Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, existing agreements, and public input.

06 00 08 **Comment Number 8**

Comment noted.

01 03 00 **Comment Number 9**

The PEIS focuses on the environmental impacts of each alternative. DOE's decision process will be based on the results of the Final PEIS, together with information from technical and economic studies, national policy objectives, and public input. This process will provide the United States with the basis and flexibility to implement Pu disposition efforts multilaterally, bilaterally through negotiations, or unilaterally as an example to Russia and other nations.

01 02 00 **Comment Number 10**

The AEA materials (including special nuclear materials such as weapons-usable fissile materials) are excluded from the definition of solid waste under RCRA and its implementing regulations, as stated in the *Solid Waste Disposal Act*, Section 1004. Furthermore, Section 1006 states that RCRA does not apply to any materials that are subject to the AEA.

All reasonable alternatives for surplus Pu disposition analyzed in the PEIS would generate wastes. The environmental impacts of the various wastes are discussed in Section 4.3 and Appendix E.

07 02 00 **Comment Number 11**

Cost data, along with technical and schedule data, were provided in a Technical Summary Report for disposition beginning in late July 1996. This report included consideration for reactor fuel cost offsets that could be realized by using MOX fuel in existing reactors as a discussion of possible revenues that could be realized from the sale of electricity or steam from a new or partially completed reactor using MOX fuel and net life cycle costs.

United States Department of Energy

NAME (Optional) DR. WILLIAM F. NAUGHTON
 ADDRESS: 1408 OCHS PLACE, SUITE 700, DOWNERS GROVE, ILLINOIS 60515
 TELEPHONE: (630) 461-0757

Following comments apply directly to Request Category
 For Discussion in which the DOE PEIS Analyses are
 Significantly Flawed Regarding Essential Issues:

1. MOX Fabrication Facility is "Not Required" but may be
 required. The former conclusion both stems from the fact
 that the significant excess capacity & flexibility in European
 plants. This stems from the fact that the
 of "required" is a common conclusion. European capacity is
 considered only in terms of volume, currently to 2006!!

2. The long running option will have increasingly positive
 environmental impacts that are negative:

- a) No increase in spent fuel as reactors will operate
 with no increase in spent fuel as reactors will operate
 with no increase in spent fuel as reactors will operate
- b) All waste paths (high, intermediate, low) will be
 same with MOX as with UOX fuel
- c) Credit should be given for displacement of uranium
 fuel that would have to be mined, milled, converted,
 enriched, and fabricated, and transported with
 attendant increase in enrichment tails
- d) MOX will use excess tails that otherwise would need to
 be disposed
- e) No impact in special enrichment facilities as enrichment
 plants would be used for UOX fuel

3. CANDU Alternative Analysis is flawed because
 (next page)

1/06.01.09

2/06.02.09

3/06.05.09

DC-004

06 01 09

Comment Number 1

Europe is moving toward a balance between the capacity to fabricate MOX fuel and the capacity to utilize MOX fuel in reactors. Additionally, Europe has excess separated Pu stores which they intend to use as MOX fuel as the fuel fabrication infrastructure and reactor infrastructure permits. Therefore, use of European reactors for consumption of U.S. Pu-source MOX fuel would merely displace the use of separated European Pu and result in no net reduction in world inventories of separated Pu. Hence, the statement that Europe has no excess MOX capacity. Additionally, facility utilization projections indicate that, while some excess MOX fuel fabrication capacity may exist in Europe for the next few years, current capacity is soon expected to be fully utilized for commercial MOX fabrication. Therefore, the United States may not be able to rely on the use of existing European MOX fabrication capacity for the entire disposition campaign. However, as a part of efforts to develop weapons-grade Pu MOX fuel, DOE is consulting with European Fuel Fabricators to benefit from their experience in MOX fuel fabrication and may have some MOX Lead Test Assemblies and/or initial core loads fabricated in Europe. Also, participation in the construction and operation of a MOX Fuel Fabrication Facility in the United States will be open to European fuel vendors.

06 02 09

Comment Number 2

The avoided impacts are considered in Section 4.9 of the PEIS.

06 05 09

Comment Number 3

If the CANDU Reactor Alternative is selected, a complete assessment of reactor environmental impacts in Canada would be performed, pursuant to Canadian Federal and Provincial law.

Comment Form

United States Department of Energy

NAME: (Optional) DR. WILLIAM F. NAUGHTON
 ADDRESS: 1462 OLIVE PLACE, SUITE 400, DOWNERS GROVE, ILLINOIS 60130
 TELEPHONE: 630 441-6757

3. CONAN (continued)

a) More Information For CONAN Fuel Disposition Currently
Exists And Would Be Helpful

b) Whether An Impact Study Should Be Conducted
Which Is A Must For Fuel Plant Fuel Conversion

c) A Comparison Of Current Uranium Fuel Cycle
Options Should Be Assessed With More Care

4. Fuel Conversion Research Should Be Only After
That Physically Requires The Fuel (conversion)
Of The Uranium Material As It Is Disposed
In Addition To Monitor The Material (conversion)
For Re-use

5.

3/06.05.09
 cont.

4/08.03.01

DC-004

08 03 01

Comment Number 4

The Department of Energy acknowledges the commentor's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

My name is Trish Neusch. I appreciate the chance as a concerned citizen and farmer to be able to have my comment heard. My husband Ronnie and myself have raised all four children on our family farm across from the Pantex Plant. We live directly across the road from the northwest corner of the Pantex Plant.

I became very concerned recently while studying the Storage & Disposition of Weapons-Usable Fissile Materials Draft PEIS (S.D. PEIS). If you will notice on page 2-80 of this document a map displaying the Conceptual Facility location for the disposition of plutonium at Pantex. If you will look in the northwest corner of the Pantex Plant site there is a proposed site for an Evolutionary Light Water Reactor (ELWR). I don't know what anyone else thinks, but I think it's a crying shame that any of these options are even being considered, much less actually built in the future in this rich agricultural productive area. While we speak of you who feel agriculture is not that important or beneficial to the area. I want you to think about that when you sit down to dinner tonight.

That ELWR is a joke. There is not enough water to ever touch being able to run a reactor much less the cooling (recycling) water necessary.

1/08.03.01

2/09.04.04

TX-063

08 03 01 Comment Number 1

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

09 04 04 Comment Number 2

It is possible that treated wastewater from the City of Amarillo could be used to supply the evolutionary LWR (Section 4.3.5.4.4). Cost issues are not within the scope of this PEIS. In this case, there would be no additional impacts over the No Action Alternative to groundwater resources. Environmental impacts from siting an Evolutionary LWR at Pantex would be evaluated in future site-specific reviews, as required, if this technology is chosen as a disposition alternative.

Am looking the spent fuel generated from such a
plant and I don't know about you but
don't look forward to a scatter up 'my front yard'
The document states several different places
that there would be no impact to the water
in the area. I have news for you. If they
start these processes across the road from my
farm, it has been proven that our wells will be
sucked dry.

2/09.04.04
cont.

3/08.03.01

On page 4-714 of the document they mention the
minimal site impact over the 10 year construction
period. Transmission lines would be constructed &
upgraded. I tell you just in case we had a silent
fight with State and Southwestern Public Service
over the construction of regular size lines in
day time and down a mile line. They finally
moved out at a cost of \$8000 to DOE & lots of
headaches and sleepless nights on our part. I tell
you to put those huge transmission lines in
across from our house, you haven't seen anything yet
we haven't begun to fight.

4/09.02.04

My advice to the DOE is to think through things
well. This isn't near as friendly a site as you
would be made to believe from listening to our
so called City leaders.

335-9723
Thank You, 1222 BOX A
Trish Neusch PANHANDLE TX
79068

TX-063

08 03 01

Comment Number 3

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

09 02 04

Comment Number 4

Construction and operation of all storage alternatives at Pantex would not affect site infrastructure. Construction of all disposition alternatives would not affect infrastructure at Pantex, except for the evolutionary LWR. The evolutionary LWR at Pantex would require additional peak electrical load during construction. New and upgraded transmission lines would be put in place for increased and redistributed electrical load as part of the construction phase. Adequate electrical energy would be available from the regional power grid. The sub-regional electric power pool from which Pantex draws its power is the West Central Power Pool. Should the Evolutionary LWR Alternative be selected, the need for and location of any new or upgraded electrical lines would be determined in site-specific, tiered NEPA documentation, as required.

Storage and Disposition of Weapons-Usable
Fissile Materials Draft PEIS

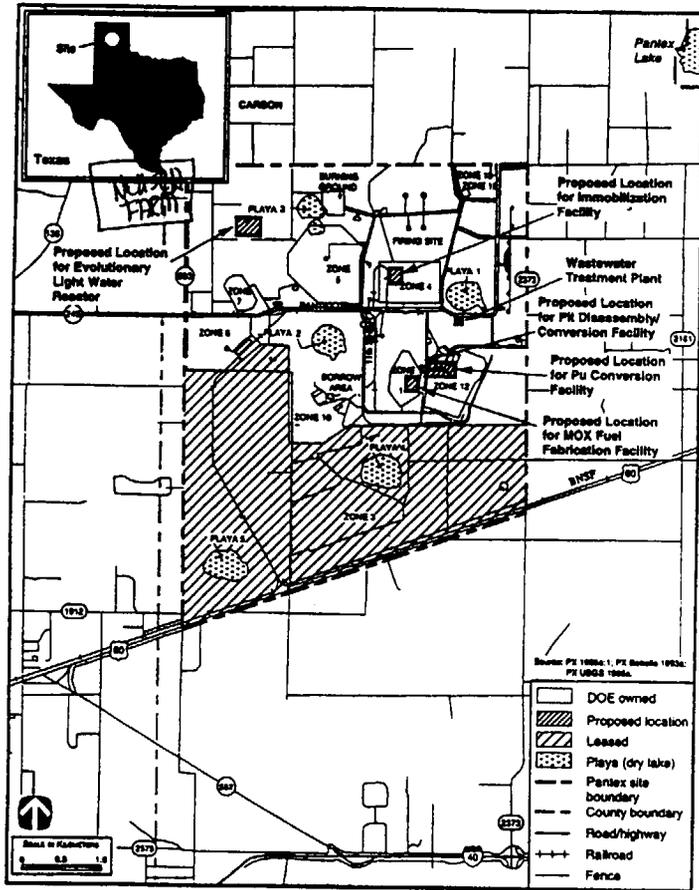


Figure 2.4-4. Conceptual Facility Location for the Disposition of Plutonium at Pantex Plant.

NEVADA NUCLEAR WASTE TASK FORCE, INCORPORATED

Alamo Plaza
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Suite 111
Las Vegas, NV 89102
702-248-1127
FAX 702-248-1128
800-227-9809

April 2, 1996

David Nulton
DOE
Office of Fissile Material Disposition
P.O. Box 23786
Washington, D.C. 20026-3786

**COMMENTS ON THE DRAFT PEIS FOR STORAGE AND DISPOSITION OF
FISSILE MATERIALS**

As with several of the Environmental Impact Statements now underway, critical comment on alternatives is of questionable value because the Department of Energy's stated intention is to select a "hybrid alternative." To do a complete evaluation of any proposed action, the commenter must have complete and clearly defined details, and know that the action, as stated, is a viable option. At a public meeting, held to discuss this document, workshop participants were told that none of the proposed actions was a "preferred alternative" and that the final Record of Decision could include elements chosen from several alternatives. Such a plan puts public participants at a serious disadvantage and weakens the effectiveness of their involvement. The result is declining or further fortified distrust toward the federal agency and its decisions - especially in matters where public health and safety are, or should be the highest priority.

1/08.03.01

The alternatives in the DPEIS are in two categories - long-term storage and plutonium disposition.

Long-Term Storage

Long-term storage is defined as fifty years. At the public meeting in Las Vegas the "no action" and upgrade alternatives were discussed in a facilitated workshop. The DOE presenter said, in response to questions, that the "no action" proposal would leave plutonium where it is and not include improvements and repairs necessary to bring facilities into a safe condition. Knowing that the existing facilities have deficiencies and problems that threaten the health and safety of workers and nearby communities, this alternative is unacceptable and could be considered a "straw man."

2/01.04.00

M-010

08 03 01

Comment Number 1

Between the issuance of the Draft and the Final PEIS, DOE has obtained information from a variety of sources, including the public. Public input was used to determine the Preferred Alternative and will be considered in DOE's decisionmaking process. DOE also conducted cost, schedule, and nonproliferation studies and reviewed various studies with the public before determining the Preferred Alternative.

01 04 00

Comment Number 2

Under the No Action Alternative, environmental and safety upgrades and maintenance at existing storage facilities would be done, as required, to ensure safe operation for the balance of the facility's useful life. The No Action Alternative is required pursuant to Council on Environmental Quality (CEQ) Regulations implementing NEPA.

NEVADA NUCLEAR WASTE TASK FORCE, INC., LAS VEGAS, NV,
 JUDY TREICHEL
 PAGE 2 OF 3

The second alternative - upgrade existing facilities - would clearly be the preference of this commenter, except that the DOE presenter said that it would include partial consolidation. "Partial consolidation" is a vague term and lends itself to the "hybrid decision" that would not be a subject to thorough evaluation by the public.

3/08.02.00

Neither of the two consolidation alternatives should be selected. There is no proven, safe method for long-term nuclear material storage. Every site is now, and will be, experimental with unforeseen situations and trial and error style responses. Consolidation, therefore does not ensure safety or environmental protection. It also has a transportation component that increases risks to a far greater number of people.

4/02.03.08

5/10.00.00

Plutonium Disposition

Three technology alternatives are discussed for Plutonium Disposition. Two of them are not disposal technologies. Immobilization and reactor use are simply a change in the waste form. Currently, it is assumed that the resulting forms suggested will go to a repository for disposal. Because the existence or availability of a repository is not certain (and perhaps not likely), these two alternatives are incorrectly defined.

6/11.01.08

The third choice - deep borehole - is another possible "straw man." It is a concept with no proven merit and there is no site with any chance of public approval.

7/04.00.00

Clearly, the only option worth considering is long-term storage alone - it is the reality of the situation. Meanwhile alternatives for disposal should continue to be researched. Given the status of the knowledge about alternatives, a disposal decision is premature.

8/02.00.08

9/08.03.00

The preparation of an EIS is not simply a troublesome box to be checked off in the federal process. Likewise, the key element of it - public participation is not an unimportant detail. Of all the entities, (or in DOE jargon - "stakeholders") involved, the public is the only lasting one. While federal agencies come and go and congressional decisions change continually, the public remains. The citizens pay the costs, live with the risks and ultimately will be either adequately protected or the victims of irreversible consequences.

10/08.02.00

Submitted by,



Judy Treichel
 Executive Director

M-010

08 02 00

Comment Number 3

The PEIS provides specific information on the partial consolidation portion by analyzing the impacts of moving all of the surplus material from RFETS and LANL to one or more of the six sites being analyzed. Therefore, if all of the materials were sent to more than one site, environmental impacts at any of the sites receiving material would be less.

02 03 08

Comment Number 4

Comment noted.

10 00 00

Comment Number 5

The human health risks of material transportations associated with the proposed Pu storage and disposition alternatives are evaluated and presented in Section 4.4 of this PEIS. The more detailed description of the methodology and supporting data for the analysis is presented in Appendix G. Transportation of radioactive materials between sites includes health risks for both normal operations and accident conditions to the public and workers.

11 01 08

Comment Number 6

Comment noted. However, the goal is to convert the material into a form that meets the Spent Fuel Standard, which is not dependent on the availability of a repository.

04 00 00

Comment Number 7

Since no sites have been selected for a deep borehole and there are no existing deep boreholes utilized for waste disposal, DOE chose to analyze a generic borehole site for environmental impacts. The other disposition technologies require facilities which are similar to existing facilities in the United States. Therefore, DOE chose to pick representative sites for the other disposition alternatives.

02 00 08 **Comment Number 8**

Comment noted.

08 03 00 **Comment Number 9**

The Department of Energy is following a schedule that allows the careful consideration of all relevant information, such as this PEIS, technical and economic studies, and commentors' input. Then good, sustainable decisions can be made.

08 02 00 **Comment Number 10**

Comment noted. DOE is committed to full implementation of NEPA that includes public participation at all levels. All comments submitted receive full consideration.

NEWMAN, R. I., FRIPP ISLAND, SC
PAGE 1 OF 7

R.I. Newman
388 Wahoo Drive
Fripp Island, SC 29920
(803) 838-4789

May 6, 1996

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

Dear Persons:

Thank you for the opportunity to comment on your "Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statement" (hereafter "PEIS").

The subject addressed in the PEIS must rank as among the most important, long- and short-term-affecting actions considered by the Department of Energy (DOE) in decades. It could have very significant impacts on near-term (two decades) budgets for R&D on unproven processes (with unpredictable delays and cost over-runs, based on earlier DOE projects), possible catastrophic energy crises in future years, perpetuation of significant CO₂ contamination of our atmosphere (in violation of international commitments), weakening of our national security, near- and long-term avoidable gross increase in energy costs (impacting most on some minorities and other low-income populations).

It should also complete the National Environmental Policy Act (NEPA) uncompleted review of the effect of using mixed oxide fuel (MOX) in reactors, along with reprocessing, on which (illegal?) actions were taken by Presidents Carter and Clinton in what appeared to be violation of the congressional mandate requiring such review in advance of any action having a potential major impact on the environment (the proliferation aspects of the Generic Environmental Statement on Mixed Oxide Fuel were abandoned by the NRC after Mr. Carter's unilateral executive order).

I have two major objections to the PEIS as issued for public comment.

The first problem is the lack of information on matters decreed by Congress to be included in any environmental study as mandated by NEPA.

The second problem has to do with the subject of minimizing the possibility of proliferation of weapons-usable, in the U.S., ^{plutonium}

As to the first concern, the statement of policy in NEPA

requires several actions pertinent to my concerns: Title I, SEC.101.(a) "...fulfill the social, economic, and other requirements of present and future generations of Americans."; Title I, Sec.101. (b), (1), "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations"; Title I, SEC.101. (b), (6), "enhance the quality of renewable resources and approach the maximum attaining recycling of depletable resources."; Title I, SEC. 102.(C), (iv), "The relationship between local short-term uses of man's environment and the maintenance of long-term productivity; Title I, Sec. 102, (C), (v), "any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented."; Title I, Sec. 102. (F) "Recognize the worldwide and long range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing decline in the quality of mankind's world environment." (Emphasis added)

My concerns, which prompt these comments are several. They include: 1. we seem to be more and more dependent on foreign sources for our fossil-fueled energy systems--gasoline ("borrowing" oil from our "strategic reserve"); 2. there is a finite limit to the now vast, fossil fuel reserves; 3. we have only one proven, available, economic ally competitive alternative to fossil fuel--nuclear; 4. while once the leader in nuclear technology, we are year by year losing those engineers with competence in designing safe nuclear fuel cycle facilities; 5. our nation's leaders seem to be oblivious to the relationship between readily available and dependable sources of energy and our national security; 6. loss of a supply of low-cost, readily available energy will not only impact our security, but will have a disastrous effect on our disadvantaged, low-income people with their unavoidable need for heat for their homes and gas for their cars.

A decision now to take an action which would intend to make a useful, and available energy source as irretrievable as possible and perpetuate the myth that we should not recycle partly used nuclear fuel would be tantamount to sounding the death-knell and driving the last nail in the coffin for the imminent demise of nuclear power, only to be brought back to life (inevitably) at great cost and only with the help of those foreign countries to whom we were once the leader.

The PEIS should look ahead as directed by NEPA at least fifty years at the impact on "future generations".

The PEIS should also look outside their blindered view of the "complete, uncompleted reactors" and "build advanced reactor" concepts. In the future, our country will need more large-scale supplies of electric power. The only two

1/08.03.01

2/08.00.00

1/08.03.01
cont.

M-162

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 00 00

Comment Number 2

The PEIS analyzes the impacts on the environment for the period required to accomplish the Proposed Action under each of the alternatives (up to 50 years after the ROD for storage, and within 25 years after the ROD for disposition). Such an analysis cannot go much beyond that timeframe without becoming "remote or speculative."

The PEIS takes into account future generations in that its purpose is to reduce surplus Pu stockpiles, potential proliferation, and other potential environmental impacts. The PEIS considers long-term consequences of irreversible/irretrievable commitment of resources (Section 4.11).

of same for, at least, the next two or more decades are fossil or nuclear power. The more central station nuclear power we have, the less fossil we need to consume for uses (like heating homes, operating vehicles, our military, etc.) which nuclear can not directly provide. (If we go to electric vehicles, we need that much more central station power--NIMBY.) Also, for every kilowatt of electricity produced by nuclear, there will be that much less carbon dioxide from fossil fuel released by the United States to the atmosphere (remember Vice-President Gore's commitment in Brazil to work toward reduction of such pollution because of the likely "green-house effect?") There will also be fewer oil spills with their devastating pollution and less pollution of various kinds from coal burning. (Doe is working on methods for burning of coal which will be "cleaner". Like the glass of water--half full or half empty? Is this work to make it "cleaner" or "less dirty"?)

NEPA mandates the economic effects of any action be addressed. When I raised this subject at a meeting on the PEIS, the DOE spokesman replied that costs alone should not drive any environmental decision to force a negative rather than a favorable impact. I agree. However, a cost-benefit analysis is imperative. If between two alternatives, there are minor differences in environmental impact, but one requires billions of dollars more and delays in implementation 10 to 15 years beyond the other (when time is of the essence) a cost-benefit analysis could and should be a critical ingredient in the decision making. I am certain that DOE is not oblivious to the need to spend money only when it is really necessary, such as solving this matter to enhance our nonproliferation posture at the very earliest time. Of course, the relative economics of fossil fuel vs nuclear should be included in the equation. Nuclear (with reprocessing) is now competitive in foreign countries. The inevitable increases in fossil fuel costs of the future should heavily weigh on the scales.

The PEIS obviously gives great weight to the National Academy of Science (NAS) report on plutonium. In the NAS report on Reactor-Related Options, it is stated, on page 384, "Since the NRC is an independent agency, the administration could only request, not direct, the NRC to halt the GESMO hearings. The administration did make clear that there would be no federal funding requested for any aspect of the reprocessing regime. Because the potential reprocessing industry depended on federal funding, including development of breeder reactors, the administration's positions made the GESMO hearing irrelevant. I, as a former vice-president of Allied-General Nuclear Services, believe this statement is patently wrong in two respects: first, while we were given access (with proper clearances) to AEC (some--not all) technology, we, as a policy, received no financial reimbursement until after Mr. Carter's order

3/07.02.00

M-162

07 02 00

Comment Number 3

Cost data, along with technical and schedule data, were provided in Technical Summary Reports of both storage and disposition in late July 1996. These documents were available for public review beginning in late July 1996.

then only for projects DOE considered important to them. Second, reprocessing does not rely on the breeder but both the light water reactor (financially) and the breeder (for its fuel) need reprocessing.

An adequate cost-benefit analysis, including the cost of R&D and the benefit of power generation must look at the time required for R&D, even that (as with DMPF) performed during pre-operational "testing". While timing itself is not a directly pertinent factor in a cost-benefit study, it should be highlighted as there is unanimity that the urgency of implementation non-proliferation actions is great. On page S-3 of the PEIS is the statement, "The purpose of the proposed action is to implement the President's Nonproliferation and Export Control Policy in a safe, reliable, cost-effective, technically feasible and timely manner." (Emphasis added)

I believe there is another flaw in the PEIS. With nuclear operations, two different studies are required in government as well as industry. One is the PEIS, which is now being discussed. The other is a Safety Analysis Report (SAR). They serve two entirely different purposes. The SAR, as its name implies, is intended to analyze, in minute detail, the expected safety of the proposed operation. For this reason, the NRC requires that air and water-borne releases from both normal and accident conditions be looked at "conservatively". This requires that margins be added to any consequence number to assure that, in real life, said consequence will have a lower actual adverse impact on the public and workers than estimated (a margin of safety). I do not have a copy of the guidances issued by the President's Council on Environmental Quality, but, as I recall, the Council said that an environmental impact statement, as a tool for comparing alternatives, should express environmental consequences in realistic, or best estimate numbers, rather than conservative numbers. On page 4-19 of the PEIS, for example, it is stated, "Studies of human populations exposed to low doses are inadequate to demonstrate the actual level of risk. There is scientific uncertainty about cancer risk at the low-dose region below the range of epidemiological observation and the possibility of no risk or even health benefits cannot be excluded. Because the health risk estimators are multiplied by conservatively calculated radiological doses to predict fatal cancer risks, the fatal cancer values presented in this PEIS are expected to be overstated."

Finally, on the NEPA considerations, NEPA addresses "any irreversible and irretrievable commitments of resources". The PEIS defines actions which are designed to make a valuable energy resource as difficult as possible to recover in the future. Yet, on page F-33 is the statement, "Existing rulings designate spent nuclear fuel as a recoverable resource...."

4/09.09.08

5/09.00.08

M-162

09 09 08

Comment Number 4

Since many of the potential actions under the various alternatives are still in the preliminary development stage, the actual information for these alternatives is not yet available. When no actual information is available, estimations must be made to predict environmental impacts. Because of uncertainties in these estimations, conservative assumptions are made to show the maximum potential environmental impacts. Where actual information is available, it is used in the PEIS.

09 00 08

Comment Number 5

Appendix F, "Air Quality and Noise," does not address spent nuclear fuel as a recoverable resource, and the Draft PEIS does not include page F-33, the page number is apparently misstated. However, Section 4.11 of the PEIS addresses "Irreversible and Irretrievable Commitments of Resources" and acknowledges that disposing of Pu represents an irretrievable commitment of a potential energy source.

NEWMAN, R. I., FRIPP ISLAND, SC
PAGE 5 OF 7

My second concern, non-proliferation, is important as it is driving this PEIS with, I believe, false, short-sighted premises.

The only certain, long-term way to make weapons-usable plutonium unavailable for weapons manufacture is to burn it up!

The PEIS alternatives have, at least, two major shortcomings: They leave most of the plutonium available to future generations for power only at a high cost of money and probably radiation exposure to those who must, out of desperation for energy, retrieve it. Also, they ignore the availability of high levels of security measures needed, world-wide, in the interim period during which the PEIS actions are debated, researched, pilot-planted, constructed, and implemented.

Another false premise is that the declarations by Presidents Carter and Clinton are cast in concrete (or vitrified). Any decision, be it by Congress, the Supreme Court, or the President can be, and often is, revisited. The orders of the two presidents are now ripe for review!

The excuse (or reason--call it what you may) for abandoning reprocessing (recycling) was to set an example to other countries. That was the purported basis of stopping a private effort to develop an economic gas centrifuge for uranium enrichment in the mid '60's. The stoppage didn't work. Centrifuges are now in use around the world (including the U.S. and Russia.

Further, if reprocessing is such a potentially proliferation-possible activity, why does the U.S. stand by when it is now being done in France, England, Russia, etc.? The U.S. was one of the principal architects of the international Atomic Energy Agency (IAEA), the principal purpose of which was to minimize the threat of proliferation. If reprocessing is such a threat, why doesn't the U.S. insist that the IAEA stop it world-wide?

6/01.06.00

Maybe we should look a short way into the future.

Looking at what DOE is proposing in the PEIS, there are three phases. First is the decision, R&D, debate, construction, check-out, debate, and start-up. Second is the operation, possibly making the plutonium irretrievable. The third is then, "Oops, we're running out of fossil fuel--what do we do now?"

7/01.06.00

The first phase, depending on which way we go, could take 5-10 years. (Look at the high level waste disposal program.)

The second phase could take 10-20 years.

M-162

01 06 00

Comment Number 6

Comment noted. The President's Nonproliferation Policy states that the United States does not encourage the civil use of Pu and, accordingly, does not itself engage in Pu reprocessing for either nuclear power or nuclear explosive purposes. The United States, however, will maintain its existing commitments regarding the use of Pu in civil nuclear programs in Western Europe and Japan.

The policy also states that the United States will make every effort to secure the indefinite extension of the Nonproliferation Treaty. The United States will seek to ensure that the IAEA has the resources needed to implement its vital safeguard responsibilities, and will work to strengthen the IAEA's ability to detect clandestine nuclear activities.

01 06 00

Comment Number 7

Comment noted.

NEWMAN, R. I., FRIPP ISLAND, SC
PAGE 6 OF 7

During this 15-40 years, we still have weapons-usable plutonium on our hands (and other countries are still recovering it!). During this time, we must have a high level of physical security!

A publication I just received gave me encouragement on security. It was the program of an upcoming meeting of the Institute of Nuclear Materials Management (INMM). At their upcoming four-day meeting there will be some 285 papers presented on safeguards on materials from uranium hexafluoride through MOX fuel fabrication plants to high and low level waste. Of these, at least 180 relate to the safeguarding of plutonium. Authors are from around the world. Gratifyingly, about 100 papers were authored by employees of DOE or DOE contractors, often in collaboration with representatives of foreign countries.

The subject of physical security is most certainly getting a high priority. If we can protect our weapons-grade plutonium and the French and English theirs, why can we not protect our weapons-usable plutonium recycled from power reactors?

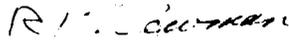
Let's look at reprocessing.

There is no evidence I have seen or heard that our head-in-the-sand has had any influence on anybody. Reprocessing conserves fossil fuel and uses other natural resources for the benefit of future generations. Nuclear, with reprocessing, significantly reduces atmospheric carbon dioxide pollution, oil spills, etc. The realistic environmental impact of nuclear power and reprocessing is minimal. If security can help protect us in the next quarter of a century or more, why the proliferation concern on reprocessing? Abandonment of reprocessing for the coming decades will rob us of the great expertise on reprocessing plant design and operation we developed over the past 50 years.

he PEIS should be rewritten for many reasons (many of which I have not addressed) to comply with the mandates of NEPA and the CEQ and to give the true picture on reprocessing and other PEIS-related matters to the American public.

The above is not to fault the DOE. It is simply doing what the boss ordered, (Marching to the drummer's beat.) However, as scientists and public servants, it has, at least, an equal obligation to state the facts, fully and openly.

Emphatically yours,


R. I. Newman

6/01.06.00
cont.

M-162



NEZ PERCE TRIBE, LAPWAI, ID,
SAMUEL N. PENNEY
PAGE 1 OF 1



Nez Perce

TRIBAL EXECUTIVE COMMITTEE
P.O. BOX 305 • LAPWAI, IDAHO 83840 • (208) 843-2263

May 6, 1996

Hazel R. O'Leary
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary O'Leary:

The purpose of this letter is twofold. First, this letter serves as an official request from the Nez Perce Tribe for an extension of the comment period for the draft programmatic environmental impact statement concerning the Storage and Disposition of Weapons-Usable Fissile Materials. We feel this comment period extension is warranted due to the lack of tribal consultation during the scoping process and prior to the release of the document for public comment. The gravity of the decision and potential environmental impacts of the considered federal options are cause for grave concern. To address this concern the Nez Perce Tribe has developed the National Tribal Platonium Forum to give Tribal leaders the information and access to the experts necessary to develop carefully considered responses to the decision scenarios we are facing.

1/08.01.00

The National Tribal Platonium Forum was developed to open the decision making process and present the choices in an open dialogue, which is the second purpose of this letter. The initiative of Acting Undersecretary Grumbly to bring the platonium decisions together in a coordinated and understandable manner is echoed by the recommendations from Tribal leaders gathered for the National Tribal Platonium Forum. The Nez Perce Tribe, however, can not concur with the choice of the National Governor's Association to fund this effort. Past experience with this organization leads us to believe our issues will not be understood or addressed in a fair manner. The untenable political tension between States and Tribes over certain issues has strained the relationship between Tribes and this organization. We recommend that a less politically entangled organization handle the coordinating activities of this important effort. In particular, we suggest that the standard that we have developed, with Hamford Advisory Board supporting organizations in the Northwest, be used as the model for the important national equity dialogue. The League of Women Voters, in particular, is an organization we could support in developing this national equity dialogue.

2/08.02.00

Thank you for this opportunity to express our interest and concerns in the continuing platonium disposition decision making process.

Sincerely,

Samuel N. Penney

Samuel N. Penney
Chairman

cc:
Grumbly
O'Leary
Stevenson

F-018

08 01 00 Comment Number 1

At the request of several organizations and individuals, the public comment period was extended to a total of 92 days.

08 02 00 Comment Number 2

The Department of Energy acknowledges the commentor's support for coordination and increased understanding on the decisions to be made on the storage and disposition of weapons-usable fissile materials. However, the National Dialogue Project is beyond the scope of this PEIS.

Comment Documents
and Responses

NO NAME SUBMITTED
PAGE 1 OF 1

Date: Tue, 23 Apr 1996

Subject: FORUM Form - incoming

serial_no = 161

MailTitle = FORUM Form - incoming

name =
title =
company =
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city =
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** The following is the text of the Author's Comment.

With regard to this PEIS, the SSMPEIS and the Pantex EIS:

1. Why, in identifying impacts, does DOE not identify significance of impacts, particularly "adverse" impacts?

2. During scoping for these documents agriculture and groundwater were identified as important issues to stakeholders. The documents do not identify any significant impacts to either. Because they were identified as issues, DOE should explicitly state there are no problems if that is its conclusion. Please take a position on the important issues!

END comment

** The following is the space reserved for an Official Reply. If you
** do not wish to reply to this comment then do not change it.
** If you wish to leave a comment then enter it here in the REPLY
** area
Begin Reply
(** insert reply here ***)
End Reply

1/09.00.08

E-004

09 00 08

Comment Number 1

Based on comments received, reference to "adverse" impacts has been deleted from the Draft PEIS and Summary in order to describe impacts less subjectively. This is the same reason "significance" of impacts is not used. Environmental impact descriptions in the Final PEIS and Summary have been expanded and revised, and are generally described in quantifiable and semi-quantifiable terms.

In the PEIS, ground water is discussed under water resources in terms of impacts on both quantity and quality. Agriculture is evaluated in terms of land resources and human health risks from the ingestion of crops and animal products. For the construction and normal operation of the various proposed storage and disposition actions, including the Preferred Alternative, no major problems to ground water and agriculture were identified in the impact analyses conducted for the Final PEIS. Discussion on potential environmental impacts is presented in Chapter 4 of the Final PEIS. Those revisions made in the Final PEIS are also reflected in the Summary.

NO NAME SUBMITTED
PAGE 1 OF 7

Comment Form
 (These comments apply to the following documents:
 Strategic and Deployment Plan PEIS
 Strategic Study/Action Plan Management Draft PEIS
 Project Site Water Draft EIS)

United States Department of Energy

NAME (Optional) _____
 ADDRESS _____
 TELEPHONE: (____) _____

COMMENT (and background information):

Section 1502.1 of 40 CFR Parts 1500-1508, the regulations implementing the National Environmental Policy Act states:

"The primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. Agencies shall focus on significant environmental impacts. Statements shall be concise, clear and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses."
 (Emphases added)

QUESTION:

In light of these very clear and concise instructions based in law, how does DOE rationalize that Pantex is identified as having:

"the greatest potential to experience adverse cumulative impacts, particularly because of its relatively small, compact area. Water resources and biological resources would be vulnerable, and land resources... **COULD BE RESPONSIBLE TO** adverse cumulative impacts" (p. 6-469) (Emphases added)

1/09.00.04

M-090

09 00 04 Comment Number 1

Based on comments received, the Summary was revised. There was no intention to portray Pantex, the Pantex region, or the Texas Panhandle region in a negative fashion. Each DOE site was analyzed and studied in the same manner and presented in the Draft PEIS accurately per these analyses and studies. All revisions made to the PEIS text are included in the Summary of the Final PEIS.

NO NAME SUBMITTED
PAGE 2 OF 7

DRAFT S&DPEIS

COMMENT (and background information):

In the Summary (p. S-46), it is stated that "When the other DOE programs previously identified in this section are considered, the rank order of DOE sites in terms of their descending potential for cumulative impacts changes to SRS, INEL, Pantex, NTS, Hanford and ORR." A similar statement appears on p. S-47.

QUESTION:

What does this statement mean? It is obscure and demands an explanation that is concise, clear, to the point, and supported by evidence.

2/09.00.04

M-090

09 00 04

Comment Number 2

The Department of Energy did not intend to give the perception that the sites were ranked. The language in the Summary has been revised to better reflect the impact analysis in Section 4.7. The Final PEIS provides the necessary information to describe the impacts for the resources analyzed. It is up to the decisionmaker to determine which impacts are discriminators among sites.

DRAFT S&DPEIS

COMMENT (and background information):

In the Summary it is stated (p. S-20) that "Potential adverse impacts to waste management would occur at Pantex, ORR (all three options), and SRS, because the construction of sanitary, utility, and process wastewater treatment systems to treat nonhazardous liquid wastes may be required."

QUESTION:

How can the construction of facilities and systems to treat waste have the potential to adversely impact the *management* of waste? Is this a significant environmental impact as intended by §1502.1 of the NEPA regulations?

3/09.11.08

M-090

09 11 08

Comment Number 3

The conceptual design for the consolidated and collocated storage facilities and the disposition facilities have, as part of their design, waste management facilities that would treat and package all waste generated into forms that would enable long-term storage and/or disposal in accordance with RCRA and other applicable Federal and State statutes and DOE Orders. The impacts of having to construct the waste management facilities are captured in other resource areas such as land use and air quality. The text referring to "potential adverse impacts" to waste management has been deleted.

DRAFT S&DPEIS**COMMENT (and background information):**

The oft-repeated phrase appears in the Summary:

"Potential adverse intersite transportation impacts related to all DOE sites could occur because of the increased risk of traffic accident fatalities."

4/10.00.00

QUESTION:

Is there no risk to human health associated with intersite transportation of radioactive material?
Has a dose risk assessment been made?

M-090

10 00 00

Comment Number 4

The human health risks of material transportations associated with the proposed Pu storage and disposition alternatives are evaluated and presented in Section 4.4 of this PEIS. The more detailed description of the methodology and supporting data for the analysis is presented in the Appendix G. Transportation of radioactive materials between sites includes health risks for both normal operations and accident conditions to the public and workers.

DRAFT S&DPEIS

COMMENT (and background information):

The Summary discusses three plutonium disposition categories (deep borehole, immobilization and reactor) consisting of nine alternatives, and ultimate high-level waste disposition.

QUESTIONS:

- | | |
|---|------------|
| a. If the immobilization alternatives and reactor alternatives (except CANDU) result in the same ultimate disposition, viz., a high-level waste (HLW) repository, what is the cost/benefit of the reactor alternatives? | 5/07.02.00 |
| b. Doesn't a <i>HLW repository</i> mean the DOE's High-Level Nuclear Waste Repository at Yucca Mt., Nevada? | 6/12.01.00 |
| c. What would constitute ultimate disposition in the case of the CANDU reactor alternative? Would the Canadians be allowed to send the resultant high-level nuclear waste back to the U.S.? | 7/06.05.08 |

M-090

07 02 00

Comment Number 5

Cost data, along with technical and schedule data, were provided in a Technical Summary Report for disposition in late July 1996.

12 01 00

Comment Number 6

The PEIS does not assume the use of Yucca Mountain as a HLW repository for disposal of MOX spent nuclear fuel and/or immobilized materials. However, since Congress directed Yucca Mountain to be the only site considered for evaluation (site characterization) for the disposition of spent nuclear fuel and HLW, data developed to date at this site has been used to evaluate the potential for disposing of Pu wastes.

06 05 08

Comment Number 7

No. The spent fuel would be retained within the Canadian spent fuel program.

DRAFT S&DPEIS

COMMENT:

In the Summary, under "Phaseout" (page S-21), it is stated that:

"For all DOE sites, with the exception of Pantex, phaseout would have a potential for adverse impacts to cultural resources if any of the structures eligible for National Register of Historic Places (NRHP) listing would not be maintained," and "None of the affected structures in Zone 12 at Pantex are considered eligible for NRHP listing."

This is *not* an accurate statement! Several of the structures in Zone 12 are potentially eligible for NRHP listing under the Cold War context. Pantex Plant is working with the State Historical Preservation Office (SHPO) and the Advisory Council on Historic Preservation regarding the subject of "Cold War" structure NRHP listings.

It is anticipated that several of the Zone 12 structures will be listed. The draft S&DPEIS text should be corrected.

8/09.07.04

M-090

09 07 04

Comment Number 8

The Summary was corrected to be consistent with Section 3.5.7 which says that Zone 12 does include a number of structures potentially eligible for the NRHP.

DRAFT S&DPEIS

COMMENT (and background information):

In Volume III (pp. M-131 through M-155), the chemicals used are as follows:

Hanford reports 3 chemicals, none with slope factors
NTS reports NO chemicals
INEL reports 28 chemicals, 12 with slope factors
Pantex reports 25 chemicals, 6 with slope factors
ORR reports 10 chemicals, none with slope factors
SRS reports 15 chemicals, 5 with slope factors
Rocky Flats reports 10 chemicals, 3 with slope factors.

9/09.10.08

These reported chemical usages present an erroneous comparison, as all sites under consideration will use similar chemicals. For example, benzene is a combustion product of both diesel fuel and gasoline, and would be common to all sites.

QUESTION:

Was the manner by which the information was requested not specific enough to insure accurate reporting or are the records at some sites incomplete? Please correct.

M-090

09 10 08

Comment Number 9

The data calls sent to each site contained the same information and requests. Under the No Action Alternative, the emissions data is from existing site facilities. Since each site has different existing facilities and operations, the chemicals emitted from these facilities are expected to be different. The cancer risk slope factors depend solely on the nature of the chemicals. For proposed new actions, the emissions data would be very similar among the sites. For detailed information on the emission data on each site, please refer to the respective data reports cited in the PEIS.

NO NAME SUBMITTED
PAGE 1 OF 2

Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic
Environmental Impact Statement (PEIS) Public Comment Form

Name (optional):
Address (optional):

See each

Please write down your comments and drop this form in the marked boxes before you leave tonight. These forms will be submitted to the Department of Energy as part of the formal comment on this PEIS. If you are unable to complete this form tonight, written comments can be mailed to:

Department of Energy
Office of Waste Materials Disposition
P.O. Box 13196
Washington, D.C. 20026-1786

or, you can call this toll-free number to leave comments by phone: 1-800-520-5156. Comments must be submitted by May 7, 1994.

The Department of Energy has identified three types of technologies as options for disposing of weapons-usable fissile materials. The Department has also considered a "no action alternative" which would result in long-term storage of weapons-usable fissile materials. Please write down your comments on the following three types of options for disposal and the storage option.

1. Materials Immobilization/Vitrification - Immobilize fissile materials by mixing them with glass, glass bonded zirconia, or ceramics.

See other site

2. Deep borehole disposal - Materials would be disposed in boreholes at least 2 1/2 miles deep, in geologically stable formations. Materials could be deposited directly into the deep borehole, or materials could be immobilized first, and then deposited into the deep borehole.

See other site

3. Reactor Options - Surplus plutonium/highly enriched uranium would be made into MOX fuel for use in nuclear reactors, destroying by fission a major portion of the weapons grade materials.

See other site

4. Storage Options - USDOE would continue existing storage practices for weapons-usable fissile materials at current locations and/or consolidate that storage at one or more of the designated sites

See other site

M-192

NO NAME SUBMITTED
PAGE 2 OF 2

14 00 00 Comment Number 1

Comment noted.

Please use this space to write down any additional comments on the Storage and Disposition of Weapons-Unsafe Public Materials Draft Programmatic Environmental Impact Statement.

There must be a way to take
Plutonium in small quantity, like
1 milligram and to cause its
existence to cease.
To cease by heat, cold, chemicals,
bacteria - or if nothing else
works to cease by placing
the plutonium unit in front of a
full-sized portrait photo. of
an X-mother-in-law!

1/14.00.00

M-192

**NO NAME SUBMITTED
PAGE 1 OF 1**

**Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic
Environmental Impact Statement (PEIS) Public Comment Form**

Name (optional): _____
Address (optional): _____

Please write down your comments and drop this form in the marked boxes before you leave tonight. These forms will be submitted to the Department of Energy as part of the formal comment on this PEIS. If you are unable to complete this form tonight, written comments can be mailed to:

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

or, you can call this toll-free number to leave comments by phone: 1-800-820-5156. Comments must be submitted by May 7, 1996.

The Department of Energy has identified three types of technologies as options for disposing of weapons-usable fissile materials. The Department has also considered a "no action alternative" which would result in long-term storage of these materials. Please write down your comments on the following three types of options for disposal and the storage option.

1. **Materials Immobilization/Vitrification** - Immobilize fissile materials by mixing them with glass, glass bonded zeolites, or ceramics.

I think this is the best long term solution

1/08.03.01

2. **Deep borehole disposal** - Materials would be disposed in boreholes at least 2.5 miles deep, in geologically stable formations. Materials could be disposed directly into the deep borehole, or materials could be immobilized first, and then deposited into the deep borehole.

Unacceptable

2/08.03.01

3. **Reactor Options** - Surplus plutonium/highly enriched uranium would be made into MOX fuel for use in nuclear reactors, destroying by fission a major portion of the weapons grade materials.

This seems to be the best nuclear solution

3/08.03.01

4. **Storage Options** - USDOL would continue existing storage practices for weapons-usable fissile materials at current locations and/or consolidate that storage at one or more of the designated sites.

We need to get on with it

M-227

08 03 01 Comment Number 1

The Department of Energy acknowledges the commentor's support for the Vitrification Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01 Comment Number 2

The Department of Energy recognizes the commentor's concern with the Borehole Alternatives. Decisions on the disposition alternatives will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01 Comment Number 3

The Department of Energy acknowledges the commentor's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statement (PEIS) Public Comment Form

Name (optional): _____
Address (optional): _____

Please write down your comments and drop this form in the marked boxes before you leave tonight. These forms will be submitted to the Department of Energy as part of the formal comment on this PEIS. If you are unable to complete this form tonight, written comments can be mailed to:

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

or, you can call this toll-free number to leave comments by phone: 1-800-820-5156. Comments must be submitted by May 7, 1996.

The Department of Energy has identified three types of technologies as options for disposing of weapons-usable fissile materials. The Department has also considered a "no action alternative" which would result in long-term storage of these materials. Please write down your comments on the following three types of options for disposal and the storage option.

1. Materials Immobilization/Vitrification - Immobilize fissile materials by mixing them with glass, glass bonded zeolites, or ceramics.

I support this concept

1/08.03.01

2. Deep borehole disposal - Materials would be disposed in boreholes at least 2.5 miles deep, in geologically stable formations. Materials could be disposed directly into the deep borehole, or materials could be immobilized first, and then deposited into the deep borehole.

No

2/08.03.01

3. Reactor Options - Surplus plutonium/highly enriched uranium would be made into MOX fuel for use in nuclear reactors, destroying by fission a major portion of the weapons grade materials.

I might support this proposal if there were more safeguards

3/08.03.01

4. Storage Options - USDOE would continue existing storage practices for weapons-usable fissile materials at current locations and/or consolidate that storage at one or more of the designated sites.

I would support this in the short term.

4/08.03.01

M-229

08 03 01 Comment Number 1

The Department of Energy acknowledges the commentor's support for the Vitrification Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01 Comment Number 2

The Department of Energy recognizes the commentor's concern with the Borehole Alternatives. Decisions on the disposition alternatives will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01 Comment Number 3

The Department of Energy acknowledges the commentor's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01 Comment Number 4

The Department of Energy acknowledges the commentor's support for the storage of fissile materials. Decisions on storage of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

NO NAME SUBMITTED
PAGE 1 OF 2

Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic
Environmental Impact Statement (PEIS) Public Comment Form

Name (optional): _____
Address (optional): _____

Please write down your comments and drop this form in the marked boxes before you leave tonight. These forms will be submitted to the Department of Energy as part of the formal comment on this PEIS. If you are unable to complete this form tonight, written comments can be mailed to:

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

or, you can call this toll-free number to leave comments by phone: 1-800-820-5156. Comments must be submitted by May 7, 1996.

The Department of Energy has identified three types of technologies as options for disposing of weapons-usable fissile materials. The Department has also considered a "no action alternative" which would result in long-term storage of these materials. Please write down your comments on the following three types of options for disposal and the storage option.

1. Materials Immobilization/Vitrification - Immobilize fissile materials by mixing them with glass, glass bonded zeolites, or ceramics.

2. Deep borehole disposal - Materials would be disposed in boreholes at least 2.5 miles deep, in geologically stable formations. Materials could be disposed directly into the deep borehole, or materials could be immobilized first, and then deposited into the deep borehole.

QUESTION THE SEISMOLOGICAL STABILITY OF BOTH HAWAII & YUKA MTD. ANY BOREHOLE DISPOSAL SHOULD INVOLVE IMMobilIZATION.

1/09.05.08

2/08.03.01

3. Reactor Options - Surplus plutonium/highly enriched uranium would be made into MOX fuel for use in nuclear reactors, destroying by fission a major portion of the weapons grade materials.

DO NOT SUPPORT MOX FUEL

3/08.03.01

4. Storage Options - USDOE would continue existing storage practices for weapons usable fissile materials at current locations and/or consolidate that storage at one or more of the designated sites.

"NO ACTION" IS THE WORST OPTION

4/08.03.01

M-231

09 05 08

Comment Number 1

No actual sites for the Deep Borehole Alternative currently exist or have been proposed. Therefore, a generic site was evaluated in the PEIS. DOE's decision on surplus Pu disposition for the borehole technology encompasses only the selection of a strategy and does not involve the selection of a borehole disposition site. Should either of the Deep Borehole Alternatives be selected, a siting study would be conducted in coordination with a site-specific discussion of environmental conditions and impacts in additional documents.

08 03 01

Comment Number 2

The Department of Energy acknowledges the commentor's support for the Vitrification Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01

Comment Number 3

The Department of Energy acknowledges the commentor's opposition to the Reactor Alternative using MOX fuel. Decisions on disposition of weapons-usable fissile materials will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01

Comment Number 4

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

Please use this space to write down any additional comments on the Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statement.

AN EXTENSION OF THE COMMENT PERIOD IS NECESSARY TO ENSURE PARTICIPATION OF AFFECTED STAKEHOLDERS.

5/08.01.00

THIS TYPE OF NATIONAL EQUITY ANALOG (NATIONAL FORUM) IS A WORTHWHILE USE OF TIME & RESOURCES.

M-231

3-507

08 01 00

Comment Number 5

At the request of several organizations and individuals, the public comment period was extended to a total of 92 days.

**NO NAME SUBMITTED
PAGE 1 OF 1**

Comment ID: P0011
Date Received: April 18, 1996
Name: none given
Address:

Transcription:

I would like to vote yes for the project. Thank you. | 1/08.03.01

P-011

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's support for long-term storage and disposition of weapons-usable fissile materials. Decisions on storage and disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

**NO NAME SUBMITTED
PAGE 1 OF 1**

Comment ID: P0025
Date Received: April 18, 1996
Name: none given
Address:

Transcription.

I prefer not to give my name, but I would like to comment on the plutonium disposal. I prefer that they burn the plutonium in a appropriate reactor, and use it up that way and make it profitable where we've put so much money into it already. It would also provide jobs in operating these reactors. Thank you.

1/08.03.01

P-025

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentator's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

NO NAME SUBMITTED
PAGE 1 OF 1

Date Received: 06/14/96
 Comment ID: P0053
 Name: None given
 Address: No address given.

Transcription:

I have a comment and a question. The question is first. It's on the Storage and Disposition-- has to do with the borehole alternative, and the other alternative that uses the repository. In size, how does the repository compare with the size of a single borehole? That's my question. And the comment: according to the Openness Initiative, there appears to be about fifty (50) tons of surplus plutonium. The borehole alternative talked about four (4) or so holes. If you divide fifty (50) by four (4), I'll even give you five (5) holes, that's like 10 tons of pure plutonium in a single hole -- not a single repository, but a single hole -- just a few feet in diameter. Why would this not pose a problem, like for criticality and for other environmental impacts?

Thank you for considering my comment and my question.

1/04.00.00

2/04.01.00

P-053

04 00 00

Comment Number 1

Section 3.9.1 of the Draft PEIS cites a range of 2,000 to 20,000 ha (4,942 to 49,420 acres) of land to accommodate the borehole site and buffer zone. While the high-level repository has yet to be sited, the environmental assessment of the current candidate site indicates that a total of 10,000 ha (24,710 acres) would be controlled for repository uses.

04 01 00

Comment Number 2

As noted in the PEIS Data Input Reports for the Borehole Alternatives, analyses to date have not identified any disqualifiers and have supported the continuation of them as reasonable disposition alternatives. More detailed analyses would accompany further phases of implementation that would include additional criticality analysis, if selected.

Date Received: 06/14/96
Comment ID: P0054
Name: None given.
Address: No address given.

Transcription:

My question is: How is the Department saving money in the engineered design of plutonium storage facilities? It seems like the upgrade facilities are being designed uniquely, and I base this on the different numbers with no common ratios in the appendices. So if it's true that we're having unique designs for the different upgrade facilities, we're spending four times the architectural engineering design funds than is necessary. What is the Department doing to minimize expenses by maximizing the use of common plutonium storage facility designs? Thank you for considering the role of the taxpayer, who is your ultimate stakeholder.

1/07.01.00

P-054

07 01 00

Comment Number 1

For the Upgrade Storage Alternative considered in the PEIS, DOE has attempted to minimize the costs of engineered design, construction, and operation by utilizing the same standards, criteria, and technical approach wherever possible for the facilities being considered. However, due to differences in existing storage facility configurations and equipment at the various DOE sites involved, the upgrades are necessarily different to be compatible with existing design and configuration.

NO NAME SUBMITTED
PAGE 1 OF 1

Date Received: 06/14/96
 Comment ID: P0055
 Name: None given
 Address: No address given.

Transcription

I have a question concerning the high level waste repository for the Storage and Disposition Environmental Impact Statement. I have read the Notice of Intent for the Yucca Mountain Environmental Impact Statement, and the Department of Energy's intent, according to that document, is not to put plutonium in the repository, other than what's in commercial spent fuel. I have read the Storage and Disposition Environmental Impact Statement, and it says that the Department's intent, if immobilization is chosen, is to put plutonium in the repository. So which document has the true Department of Energy intent, and which document is trying to hide something from the public? The two documents of course, are the Storage and Disposition Environmental Impact Statement and the Department of Energy Notice of Intent for the Yucca Mountain EIS. Thank you. Please be open and honest. Bye

1/12.00.00

P-055

12 00 00

Comment Number 1

The Notice of Intent (NOI) for the Repository EIS considered only commercial spent nuclear fuel, DHLW, and DOE-owned spent fuels. If the timing of the Repository EIS (and subsequent license application) does not permit inclusion of Pu forms resulting from a ROD on Pu Disposition, then supplemental NEPA compliance documentation will be required. The Office of Fissile Materials Disposition is working closely with the Office of Civilian Radioactive Waste Management to ensure coordination between these two efforts.

Date Received: 06/14/96
Comment ID: P0056
Name: None given
Address: No address given

Transcription:

I am concerned about the annual radioactive releases during normal operations of common facilities for plutonium disposition. I am referring to Table M.2.3.1-2 in the Storage and Disposition Environmental Impact Statement. Each of those three so-called common facilities have releases exceeding a hundred microcuries a year. And I understand that TA-55 in Los Alamos, which in about 15 years its actual emissions are only 1 microcurie per year. So we are talking that these facilities would emit over a hundred times more as a new facility. The Plutonium Finishing Plant at Hanford, which is a 40-plus year facility, has emissions in about this order of magnitude. So I guess my question is: If these common facilities are projected to emit PFP-like emissions now, what will their relations be towards the end of their useful life? Thank you very much.

1/09.09.08

P-056

09 09 08

Comment Number 1

The radionuclide emissions from proposed Pu disposition facilities are estimated by evaluating the maximum potential human health effects from the Proposed Actions. The radionuclide emission estimates contained some degree of uncertainties. These uncertainties lead to the use of conservative radionuclide emission estimates. The radionuclide emissions during actual operation will be below the levels conservatively estimated in this PEIS. See the data reports as cited in the PEIS for the methods and assumptions used for the radionuclide release estimations.

FISSILE MATERIALS PEIS COMMENTS

- There does not seem to be any discussion about costing of alternatives. Does cost of each alternative play a role in choosing preferred alternative? When choosing a preferred alternative, it would be fiscally irresponsible without cost evaluation. 1/08.00.00

- As Pantex dismantlement decreases, the number of buildings used for this purpose will decrease. Plans for each alternative on page S-12 specify modifying and/or building new facilities. Did these plans take into effect, that existing structures would become available for use, thus avoiding large new construction costs and minimizing impact on the environment. 2/02.00.04

- On page S-18, under the No Action Alternative, (Page S-19 Upgrade Alternative, Consolidation Alternative (both options), page S-20 Expand-Use Alternative, Collocation Alternative, S-28 Disposition Alternative Pit Disassembly/Conversion Facility, S-30 Ceramic Immobilization Facility, S-31 Vitrification Alternative, S-33 MOX Fuel Fabrication Facility, S-35 Evolutionary LWRs Alternative) the summary states "Adverse impacts to water resources at Pantex would result from the continued local drawdown of the Ogallala Aquifer, but Pantex's contribution to this drawdown is expected to continue to decrease due to a decrease in other DOE activities at Pantex.
 - There does not appear to be an evaluation of decrease versus increase in the above statement and consideration of using reclaimed wastewater.
 - On page 3-159 of Volume I, it states that "an agreement between Pantex and the city of Amarillo is currently being negotiated to develop reclaimed wastewater ... The use of reclaimed wastewater could curtail the annual decline rate of the Ogallala Aquifer." There does not appear to be any evaluation or consideration given to reclaiming wastewater and reusing that water with respect to "adverse impact: Evaluation of recycling treatment water (Amarillo & Pantex agreement)
 - Page S-64 Summary Comparison states that Pantex would use the least amount of water among candidate sites and 57% of water used would be discharged back to the playas and consequently the aquifer. No adverse impact is mentioned.
 - In other parts of the summary, water usage is mentioned as a percentage and thus skews the perception of impact. Since Pantex uses less water from the surrounding area than any of the other candidate sites, any increase in water usage would come out as a higher percentage given an equal increase at all sites. Even this is not true since other sites would use more water than Pantex for these options.
 - In the detailed description of Volume II, pages 4-190 through 4-192, water usage for the alternatives has a negligible impact on the aquifer as stated by "water requirements are small relative to the total water in aquifer storage", "total projected amount to be pumped in Carson County by an insignificant amount (0.0001-percent)", and "there should be minimal3/09.04.04

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08 00 00

Comment Number 1

The technical, cost, and schedule analyses of the various alternatives are presented in a separate document to support DOE's ROD. This document was made available to the public for review beginning in late July 1996.

02 00 04

Comment Number 2

As the mission for Pantex changes, DOE will continue to evaluate the possible re-use of existing facilities versus the need for new facilities. Existing facilities will be utilized, where possible, to avoid the cost and related impacts of building new facilities.

09 04 04

Comment Number 3

The actual quantities required for each alternative and the associated percent increases are provided in Chapter 4 of the PEIS and also in the table entitled "Potential Changes to Water Resources at Pantex Plant No Action (2005) and Storage Alternatives." Although Pantex is contributing to the depletion of the Ogallala Aquifer, as stated in Chapter 4, additional groundwater drawdowns attributed to the various long-term storage alternatives are expected to be slight, with minimal impacts to regional groundwater levels. The Summary was revised to emphasize that Pantex's water use from the Ogallala Aquifer is expected to decrease significantly by the year 2005, and that additional withdrawals attributed to the long-term storage alternatives should have only a minor impact on groundwater resources.

The possible use of reclaimed wastewater is not examined in detail in the PEIS because some data (such as cost-benefit analysis) have not been determined for implementing the pipeline specifically for any of the alternatives proposed in this PEIS. In general, several of the disposition alternatives are the only ones which require enough water to consider a project of the scale of constructing an approximately 32.2 km (20 mi) long pipeline to supply water to Pantex. Future tiered NEPA documents would be conducted, as required, to analyze the feasibility of providing Amarillo's treated wastewater to Pantex.

impacts to regional groundwater levels from this additional withdrawal. The total water withdrawal ... would be less than what is currently being withdrawn from the Ogallala Aquifer by Pantex." This does not create an "adverse impact".

3/09.04.04
cont.

- On page S-18, under the Upgrade Alternative, (S-19 Consolidation Alternative, S-20 Collocation Alternative, S-28 Disposition Alternative Pu Conversion Facility, S-31 Vitrification Alternative) the summary states "The Upgrade Alternative would have potential adverse impacts to air quality at Hanford (both options), INEL, Pantex, and SRS, since air pollutants concentrations would increase during construction and operations. Yet in the very next sentence, the summary states "Cultural and paleontological resources could be affected wherever there is ground disturbance due to construction ... except at ... and at Pantex, because no new ground disturbance would be involved.

- what part of operations would adversely impact air quality at Pantex.
- On Page S-72, which is approximately the same for all other alternatives, the summary states "During construction, site is expected to comply with ambient air standards and guidelines. During operation ... site is expected to comply with ambient air standards and guidelines." There is no adverse impact stated during Appendix A summary comparisons. The above is stated for all sites. Why are only specific sites mentioned above singled out for "adverse impact" If Pantex, as a candidate site, is expected to comply with all ambient air standards and guidelines then where is the "adverse impact" in that?

4/09.03.04

- In volume II, the words "adverse impact" are never mentioned in regards to air quality. Volume II, pages 4-184 and 4-185, does mention "Increased PM10 and TSP concentrations may occur during the peak construction period, particularly during dry and wind conditions." Has an evaluation taken place to compare this small area of construction with the thousands of acres that are plowed annually in this area during dry and windy periods. The increase in PM10 and TSP directly attributable to Pantex would be negligible -- not an "adverse impact".

- On page S-19, under the Consolidation Alternative, the summary states "The potential for adverse impacts to land resources exists at ... Pantex, under the construction of a new facility north of Zone 11 and modification of existing facilities in Zone 12 South option, due to nonconformance with existing land-use plans, policies, or controls.

- The Appendix A of the summary does not even mention this "adverse impact". The side-by-side comparison with the other sites is approximately equal. Why was Pantex singled out for "adverse impact"?
- In Volume II, page 4-176, it states that "However, the master plan (*Pantex Site Development Plan*) designates Zone 11 for applied technology (PX DOE 1995g:8,11). Therefore, there would be potential adverse effects to land use." It is not anticipated that the Applied Technology Division will expand to use the land in question. This is not an adverse impact and is a

5/09.01.04

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09 03 04

Comment Number 4

The impacts to the air quality at Pantex due to operational activities are identified in the various sections of the PEIS dealing with air quality. As an example, Section 4.2.4.3 identifies the emission sources associated with operations to include boilers for space heating, diesel generators and testing of emergency diesel generators, exhaust and road dust from delivery and employee vehicles, and toxic/hazardous pollutant emissions from facility processes.

The Summary of the Draft PEIS, which presents information from Chapter 4 on environmental consequences, was revised to remove all subjective or qualitative comparisons among sites such as "adverse impacts."

09 01 04

Comment Number 5

Land-use planning is a dynamic process in which plans must be refined to reflect new information or needs. Although a potential action would be inconsistent with the current site development plan, Pantex could revise the plan in accordance with the proposal. The Proposed Action would be in compliance if the change is approved. The Final PEIS was revised to reflect this condition.

Zone 11, a potential location for the Consolidation Alternative at Pantex, was deleted in the Final PEIS.

very strict interpretation of a document written to describe existing land use. Changes can be made easily to the *Pantex Site Development Plan* to describe future land use that was not thought about at initial writing. In Volume II, page 4-176/177, it states for all alternatives that "alternative would be consistent with the city of Amarillo's land-use plans, policies, and controls. In Volume I, page 3-147, "Within the State of Texas, land-use planning occurs only at the municipal level. The City of Amarillo comprehensive plan has designated land for future growth." These two references indicate that any construction at Pantex does not create "a potential for adverse impact to land resources... due to nonconformance with existing land-use plans, policies, or controls." In Volume II, page 4-856, it states "Nonetheless, future site development would be anticipated to be in conformance with the future land uses as designated by the *Pantex Site Development Plan*. As such, the various additive, aggregative land-use actions that would accumulate incrementally, although consuming land, would not change land use, or violate land-use plans, policies, or controls for the user. Proposed development would also be compatible with the industrial use visual character of the developed areas of Pantex." This is in direct opposition to the above "adverse impact" statement.

VERIFY what policies actually exist for Pantex and is there any nonconformance issues. CONFIRM impression of what is stated in PEIS and the *Pantex Site Development Plan*.

5/09.01.04
cont.

- On page S-19, under the Consolidation Alternative (S-20 Collocation Alternative, S-22 Disposition Alternative Pit Disassembly/Conversion Facility, S-31 Vitrification Alternative, S-33 MOX Fuel Fabrication Facility, S-35 Evolutionary LWRs Alternative), the summary states "At all of the DOE sites under consideration, cultural and paleontological resources have the potential to be affected wherever there is ground disturbance due to construction activities.

The side by side comparison in Appendix A states "Prehistoric and historic resources occur within the acreage that would be disturbed during construction." (Who chose these sites, adequately surveyed, use of other buildings, etc)

For Pantex, Appendix A also states "It is unlikely that paleontological resources occur within the acreage disturbed during construction." Thus not all DOE sites are the same in this area.

6/09.07.04

- On page S-19, under the Consolidation Alternative (page S-20 Collocation Alternative, S-28 Disposition Alternative Pit Disassembly/Conversion Facility, S-30 Ceramic Immobilization Facility, S-31 Vitrification Alternative, S-35 Evolutionary LWRs Alternative), the summary states "Waste management at Pantex (both options) and SRS has the potential for adverse impacts where implementation of this alternative may require construction of sanitary, utility, and process wastewater treatment systems to treat nonhazardous liquid wastes.

7/09.11.04

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09 07 04

Comment Number 6

Paleontological resources are different from cultural (prehistoric, historic, and Native American) resources. At Pantex, paleontological resources are unlikely to be affected within areas of disturbance, while cultural resources (for example, historic resources) may be affected. The affected environment for these resources is discussed in more detail in Section 3.5.7 of the PEIS.

09 11 04

Comment Number 7

Based on comments received, the Summary of the Draft PEIS was revised to clarify the comparison of impacts and to delete reference to "adverse" impacts. All revisions made appear in the Summary of the Final PEIS.

<ul style="list-style-type: none"> - The summary is inconsistent from paragraph to paragraph on pages S-19 and S-20. The second paragraph as stated above mentions adverse impact at Pantex, but does not mention adverse impact for Pantex in last paragraph on S-19 or S-20 second paragraph, or last paragraph for Collocation Alternative page S-20 	<p>7/09.11.04 cont.</p>
<ul style="list-style-type: none"> - The treatment of liquid nonhazardous wastes is the area of concern that may require construction of sanitary, utility, and process wastewater systems. <u>Construction of additional facilities is not necessary due to the decrease of other activities (e.g. dismantlement) at Pantex and the existing facilities can accommodate this increase of liquid nonhazardous wastes. This is not an adverse impact.</u> 	<p>8/09.11.04</p>
<ul style="list-style-type: none"> • On page S-19, under the Consolidation Alternative (Page S-20 Collocation Alternative, S-28 Disposition Alternative Pit Disassembly/Conversion Facility, S-30 Ceramic Immobilization Facility, S-31 Vitrification Alternative, S-35 Evolutionary LWRs Alternative), the summary states "Potential adverse intersite transportation impacts related to all DOE sites could occur because of the increased risk of traffic accident fatalities. <ul style="list-style-type: none"> - It could be concluded that the addition of one vehicle trip to Pantex causes an increased risk of traffic accident fatalities. However in Volume II, in all of the alternatives, page 4-203 through 4-206, all alternatives state for traffic conditions "There would be no significant traffic impact to the local road network" <u>If there is no significant traffic impact, then why does the summary state otherwise?</u> 	<p>9/10.02.00</p>
<ul style="list-style-type: none"> • On page S-19, under the Consolidation Alternative (Page S-20/21 Collocation Alternative), the summary states "The Consolidation Alternative would have adverse impacts to the following ... biological resources at ... Pantex <ul style="list-style-type: none"> - But for construction of a MOX Fuel Fabrication Facility on page S-33, the summary states "At all DOE sites, except for Pantex, there would be the potential for adverse biological resource impacts because habitat disturbance and potential impacts to special status species during construction activities. <u>For construction, there is either adverse impact or no adverse impact-- this example shows large inconsistencies in evaluations and conclusions drawn from basically the same data input.</u> 	<p>10/09.06.04</p>
<ul style="list-style-type: none"> • On page S-20, under the Consolidation Alternative (S-35 Evolutionary LWRs Alternative), the summary states "... biological resources would experience adverse impacts under the Consolidation Alternative at all DOE sites. This is due to habitat loss ... In addition, the potential exists for adverse impacts to either Federal- or State-listed threatened and endangered or special status species at ... Pantex (both options) ... There is also the potential for adverse impacts to wetlands at Pantex (both options)." <ul style="list-style-type: none"> - Page 3-166 in Volume 1. "No critical habitat for threatened and endangered species as defined in the ESA (50 CFR 17.11; 50 CFR 17.12) exists on Pantex." - Page 3-167 in Volume 1. "There is little undisturbed habitat at Pantex that 	<p>11/09.06.04</p>
<p>TX-050</p>	

09 11 04 **Comment Number 8**

After discussion with Pantex representatives and review of the Pantex EIS (DOE/EIS-0225D), the impacts of liquid nonhazardous wastes have been reevaluated. The Final PEIS reflects that the existing wastewater treatment systems at Pantex are adequate to handle the increase for the Consolidation and Collocation Storage Alternatives.

10 02 00 **Comment Number 9**

The statement in the Summary on the potential adverse intersite transportation impacts concerns the human health impacts of moving radioactive material (Pu and uranium) to support the storage and disposition alternatives. This analysis concerns DOE material, is governed by Federal, State, local, and DOE regulations, and determines the number of fatalities due to movement of the material. The analysis is contained in Section 4.4 of the PEIS. The statements in the various socioeconomic sections concern local traffic conditions in regard to construction and operations workers that may be needed for the alternatives. This analysis concerns workers, is governed by traffic laws, and determines the effect of the local transportation network.

09 06 04 **Comment Number 10**

The proposed sites for the Consolidation Alternatives and the MOX Fuel Fabrication Facility were in different locations at Pantex and contained different habitat types (one being a previously disturbed area). Thus, the potential to disturb biological resources would also differ among these alternatives. The proposed site locations have changed and are reflected in the Final PEIS.

09 06 04 **Comment Number 11**

The Summary was revised to correctly reflect the analysis provided in Chapter 4. The official designation of critical habitat by the U.S. Fish and Wildlife Service (USFWS) does not determine the presence of, nor the possibility of, impacts to a threatened or endangered species. Regardless of the permanent or temporary nature of a species occurrence at Pantex, the potential impacts to those species attracted to the site are described. The word

Storage and Disposition of Weapons-Usable Fissile Materials Final PEIS

would accommodate any of the threatened, endangered, and other special status species, other than the Texas horned lizard. Most of these species are attracted to the playas, which provide water and foraging habitat."
- The above two sentences taken together do not merit "an adverse impact" at Pantex.
- The summary side-by-side comparison states "Construction-related ground disturbance may increase the potential for sediment runoff to wetlands. During construction and operation, discharge of treated wastewater could cause increase open water areas in site playas which could lead to change in plant community composition. Discharges should increase aquatic habitat for amphibians." This is not adverse impact. Most of these playas are dry for most of the year. An increase of water would definitely help wetlands and provide improvement for the "water and foraging habitat."

11/09.06.04
cont.

- On page S-20, under the Collocation Alternative (Page S-29, Ceramic Immobilization Facility, S-35 Evolutionary LWRs Alternative), the summary states "Although the level of service on one or more local roads would decline during construction at INEL, Pantex, and ORR (all three options), the associated employment benefits would outweigh any short-term adverse local transportation impacts."

12/10.00.00

- In Volume 1, page 3-175, it is stated that Traffic conditions on all of these roads (FM 693, 293, 2373) are typically free flowing with low volumes of vehicles capable of traveling at speed limits without interference due to congestion. Building projects in past have had no effect on traffic conditions at the plant and would not be expected to have "adverse local transportation impacts" in the future. The traffic volume would not be that great even with construction crews.

- Inconsistency: Even though Pantex is included in sites used for analysis of Immobilization and Deep Borehole and Reactor categories (see second paragraph on page S-13), Page 22 (Page 32 MOX Fuel Fabrication Facility) states "Construction and operation of the pit disassembly facility would have no or negligible impacts to land resources, site infrastructure, air quality, noise, and geology and soils at any of the DOE sites used for analysis purposes."

13/09.00.04

- This statement is not consistent with other alternatives and associated evaluations and conclusions. Additionally, the above paragraph is not consistent with following paragraphs in the same sections.

- On page S-28, under the Pu Conversion Facility paragraph, the summary states "Whereas the associated employment would have generally positive socioeconomic impacts at all of the DOE sites, the level of service on one or more local roads during the operations period would decline at INEL, Pantex, and ORR, leading to an adverse socioeconomic impact for the Pu conversion facility."

12/10.00.00
cont.

- In Volume 1, page 3-175, it is stated that Traffic conditions on all of these roads (FM 693, 293, 2373) are typically free flowing with low volumes of vehicles capable of traveling at speed limits without interference due to

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"adverse" has been deleted as a descriptor of impacts. There are no anticipated impacts for wetlands at Pantex

The side-by-side summary comparison noted is presented consistently throughout the document. Both increases and decreases in stormwater and wastewater discharges may affect the open water areas in the playas and could lead to changes in both the plant and biotic populations living within and utilizing the playa. Also, increases in stormwater, wastewater, and operational discharges may increase the potential for sediment and affect the open water area and water quality within the playa. The impacts due to water discharge to playas are described as an increase in aquatic habitat and an alteration of wetland habitat; whether the changes to wetlands are positive or negative would be determined in site-specific environmental documentation.

10 00 00 Comment Number 12

The local transportation model used indicates that there would be a decline in the level of service during construction of the collocation facility, ceramic immobilization facility, and evolutionary LWR at Pantex. The model indicates there would not be a decline in the level of service during operation of these facilities. The statements in the Summary concern the level of service decline during construction not operation. A description of the Average Annual Daily Traffic (AADT) is included in Section 4.1.8 of the PEIS. This model uses six levels of service described in Table 4.1.8-1. A drop of one level of service is considered an impact in the PEIS. Although building projects in the past have had no effect on traffic conditions, the AADT model was applied to all sites so that a comparison can be made between them.

09 00 04 Comment Number 13

Based on comments received, the Summary was revised. There was no intention to portray Pantex, the Pantex region, or the Texas Panhandle region in a negative fashion. Each DOE site was analyzed and studied in the same manner and presented in the PEIS per these analyses and studies. All revisions made to the PEIS text are included in the Summary of the Final PEIS.

NO NAME SUBMITTED
PAGE 6 OF 6

congestion. Building projects in past have had no effect on traffic conditions at the plant and would not be expected to have "adverse local transportation impacts" in the future. The traffic volume would not be that great even with construction crews.
In Volume II, page 4-205 through 4-206, all alternatives state for traffic conditions "There would be no significant traffic impact to the local road network". This a large inconsistency and does not deserve to be described as an "adverse impact" in the summary.

12/10.00.00
cont.

- On page S-29, under Ceramic Immobilization paragraph (S-31 Vitrification Alternative, S-32 MOX Fuel Fabrication Facility, S-35 Evolutionary LWRs Alternative), the summary states "The potential for adverse impacts would exist for land resources at Pantex, because use of the proposed site would not be in conformance with the *Pantex Site Development Plan*.

In Volume II, page 4-176, it states that "However, the master plan (*Pantex Site Development Plan*) designates Zone 11 for applied technology (PX DOE 1995g.8.11). Therefore, there would be potential adverse effects to land use." It is not anticipated that the Applied Technology Division will expand to use the land in question. This is not an adverse impact and is a very strict interpretation of a document written to describe existing land use. Changes can be made easily to the *Pantex Site Development Plan* to describe future land use that was not thought about at initial writing.

5/09.01.04
cont.

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1. So slow on disposal

1/01.00.00

2. With our present President we do not know from one day to the next what he is going to do.

France is testing
China is testing etc.

It is foolish to be thinking of reducing the stockpile as it seem to be proposed.

2/01.00.00

3. The environmental damage that you may run into affect this area. No construction is given to all the chemicals that is poisoning the human body by allowing the chemical companies to put all their chemicals into our food supply which will harm all humanity in the U.S.

3/15.00.00

a. which is worse "the pollutants" put out by Pantex that affects the local population. or

b. all the chemicals that go into our food which affects the whole nation

It will hurt the economy of this city to have another "pay roll" eliminated. The state 4 plans some plans to dispose of, and those are - the Air Base. Bill Helms.

4/09.08.04

TX-051

01 00 00

Comment Number 1

Comment noted.

01 00 00

Comment Number 2

Comment noted.

15 00 00

Comment Number 3

Comment noted. Regulating the food supply companies is the responsibility of the Food and Drug Administration.

09 08 04

Comment Number 4

Phasing out existing storage facilities is the only activity associated with the PEIS alternatives that would eliminate jobs at Pantex. DOE estimates that only about five direct jobs would be lost due to the phaseout of the storage mission. Although any employment loss would be undesirable, the loss of five jobs would have no impact on the local or regional economy.

helium plant and Pantex - what next?

*I am not in favor of
cutting the payroll
of this city further.*

5/08.03.01

TX-051

08 03 01

Comment Number 5

The Department of Energy acknowledges the commentor's support of Pantex. Decisions related to future missions at Pantex will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

Comment Form
The Department of Energy, Office of Public Involvement
Energy and Environmental Programs
Office of Environmental Policy and Assessment
United States Department of Energy

NAME: (Optional) _____
ADDRESS: _____
TELEPHONE: () _____

DISPOSITION PELS

The DOE has already decided against a plutonium-burning production and power reactor. There is continued pressure against oil production, coal mining from environmentalists.

Please do NOT throw away huge amounts of energy without harnessing those Megawatts. We do not need to give it to CANADA and commercial entities. Let the government build a new reactor burn the Pu and supply the power to the nation. BE A DEPARTMENT OF ENERGY!

The Immobilization and Borehole options merely put-off 'til tomorrow the ultimate disposition. Imagine the riots when a borehole starts a plume!

1/08.03.01

2/08.03.01

TX-054

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentator's support for Pu disposition in reactors. Decisions on disposition will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

08 03 01

Comment Number 2

The Department of Energy acknowledges the commentator's opposition to the Borehole and Immobilization Disposition Alternatives. Decisions on the disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.