



*Office of  
Fissile Materials Disposition*

United States Department of Energy

***Storage and Disposition of  
Weapons-Usable Fissile Materials  
Final Programmatic Environmental  
Impact Statement***

**Comment Response Document**

**Volume IV - Part B**

**December 1996**

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Attention: Storage and Disposition of Weapons-Usable Fissile Materials  
Final Programmatic Environmental Impact Statement/Volume IV - Part B

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## COVER SHEET

**RESPONSIBLE AGENCY:** U.S. Department of Energy (DOE)

**TITLE:** *Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement (DOE/EIS-0229)*

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**ABSTRACT:** This document analyzes the potential environmental consequences of alternatives for the long-term storage (up to 50 years), including storage until disposition, and disposition of weapons-usable fissile materials from U.S. nuclear weapon dismantlements under the responsibility of the DOE. Long-term storage of nonsurplus inventories of weapons-usable plutonium (Pu) and highly enriched uranium (HEU) are required for national defense purposes, while the disposition of surplus weapons-usable Pu is necessary in order to implement our national nonproliferation policy. In addition to the No Action Alternative, this PEIS assesses three storage alternatives (that is, upgrade at multiple sites, consolidation of Pu, and collocation of Pu and HEU) at six DOE candidate sites located across the country. These sites are Hanford Site, Nevada Test Site, Idaho National Engineering Laboratory, Pantex Plant, Oak Ridge Reservation, and Savannah River Site. Although they are not candidate sites for storage, Rocky Flats Environmental Technology Site (RFETS) and Los Alamos National Laboratory are assessed for the No Action Alternative. For the disposition of surplus Pu, three alternative categories (that is, deep borehole, immobilization, and reactor) with nine primary alternatives are assessed at several DOE and representative sites for analysis purposes. Evaluations of impacts on site infrastructure, water resources, air quality and noise, socioeconomics, waste management, public and occupational health and safety, and environmental justice are included in the assessment. The intersite transportation of nuclear and hazardous materials is also assessed. DOE's Preferred Alternative is identified in this Final PEIS. The Preferred Alternative for storage is a combination of No Action and Upgrade Alternatives for the various DOE sites, and phaseout of Pu storage at RFETS. The Preferred Alternative for disposition of surplus Pu is to pursue a disposition strategy involving a combination of immobilization and reactor alternatives, including vitrification, ceramic immobilization, and existing reactors.

**PUBLIC INVOLVEMENT:** The DOE issued a Draft PEIS on March 8, 1996, and held a formal public comment period on the Draft through June 7, 1996. In preparing the Final PEIS, DOE considered comments received via mail, fax, electronic bulletin board (Internet), and transcripts of messages recorded by telephone. In addition, comments and concerns were recorded by notetakers during interactive public meetings held during March and April 1996 in Denver, CO, Las Vegas, NV, Oak Ridge, TN, Richland, WA, Idaho Falls, ID, Washington, DC, Amarillo, TX, and North Augusta, SC. Comments received and DOE's responses to those comments are found in Volume IV of the Final PEIS.



DOE/EIS-0229

**Storage and Disposition of  
Weapons-Usable Fissile Materials  
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Environmental Impact Statement**

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**Volume IV - Part B**

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## FOREWORD

This is the *Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement* (PEIS), prepared by the U.S. Department of Energy, Office of Fissile Materials Disposition. The document is composed of four volumes and a separate Summary. Changes made since the Draft PEIS are shown by change bar notation (vertical lines adjacent to the changes) in this Final PEIS for both text and tables. Deletion of one or more sentences is indicated by the phrase "Text deleted." in brackets. This Final PEIS includes the Preferred Alternative, which is a combination of alternatives. The Preferred Alternative is described in Section 1.6 and Chapter 2 of Volume I, and analyzed in Chapter 4 of Volume II. For all the alternatives, including the Preferred Alternative, a comparison of alternatives is presented in Section 2.5 of Volume I and a summary of impacts is presented in Section 4.6 of Volume II (Part B). Information from these sections is also presented in the Summary.

Volume I contains Chapters 1 through 3 of the PEIS. Chapter 1 includes a description of the history and background of the fissile materials disposition program, the purpose of and need for the proposed action, a summary of changes made to the Draft PEIS, and the Preferred Alternative. Chapter 2 gives a description of the proposed long-term storage and disposition alternatives, a description of how the alternatives were selected and why others were eliminated from further consideration, and a comparison of the alternatives in terms of their potential environmental impacts. Chapter 3 describes the affected environment at candidate long-term storage locations, and at sites and environmental settings for the disposition alternatives.

Volume II (Parts A and B) contains Chapters 4 through 10 of the PEIS. Chapter 4 describes the potential environmental impacts resulting from construction and operation of the proposed long-term storage and disposition alternatives, including the Preferred Alternative. Also contained in this chapter are intersite transportation impacts, a discussion of environmental justice issues, cumulative impacts due to the implementation of the proposed alternatives in addition to other actions at a site, avoided environmental impacts, and a summary of impacts. Chapter 5 provides a list of references used in the preparation of this document. Chapter 6 provides an index to the main text of the PEIS. Chapter 7 is a glossary of key terms used in the document. Chapter 8 is a list of preparers. Chapter 9 lists government agencies and organizations contacted during the preparation of this PEIS. Chapter 10 provides a distribution list for the document.

Volume III contains the appendices to this PEIS. Appendix A contains the fact sheet on the President's *Nonproliferation and Export Control Policy*, and the Joint Statement Between the United States and Russia on Nonproliferation. Appendix B provides specifications for key buildings within each facility complex analyzed in this PEIS. Appendix C describes requirements for construction and operation of the various facilities required to accomplish the storage and disposition activities essential to the alternatives described in this PEIS. Appendix D provides information on overall water usage for the storage and disposition facilities discussed in this PEIS. Appendix E gives a general overview of the Department of Energy (DOE) environmental restoration and waste management program, baseline waste management at DOE sites, and project-specific waste management activities associated with the proposed long-term storage and disposition alternatives. Appendix F provides detailed data supporting the air quality and noise analyses. Appendix G describes the methodology used for intersite transportation risk analysis and provides a summary of hazardous materials shipped to and from DOE sites, plus information on shipping containers. Appendix H evaluates various plutonium waste forms for potential disposal in a high-level waste repository. Appendix I describes operations of a Canadian Deuterium Uranium Reactor. Appendix J identifies the compliance requirements associated with the Proposed Action, as specified by the major Federal and State environmental, safety, and health statutes, regulations, and orders. Appendix K lists the scientific names of common nonthreatened and nonendangered animal and plant species identified in Chapters 3 and 4. Appendix L includes the supporting data used for assessing the No Action

Alternative in the socioeconomics sections of this PEIS. Appendix M presents detailed information on the potential health risks associated with releases of radioactivity and hazardous chemicals from the proposed storage and disposition alternatives during normal operations and from postulated accidents. Appendix N describes different concepts for, and provides cost and benefit information on, the multipurpose reactor. Appendix O provides a description of facilities and operations for a can-in-canister approach to plutonium immobilization at the Savannah River Site in South Carolina. Appendix P describes the potential environmental impacts of using the Manzano Weapons Storage Area in New Mexico for the long-term storage of plutonium pits. Appendix Q identifies the potential health impacts from the storage of Rocky Flats Environmental Technology Site plutonium pits at the Pantex Plant in Texas. Appendix R discusses the aircraft crash and radioactive release probabilities for proposed storage and disposition facilities at Pantex Plant in Texas. A separate Classified Appendix was also prepared, which provides detailed analysis results for intersite transportation risks based on classified inventories of materials stored at DOE sites.

Volume IV (Parts A and B) is the Comment Response Document. It contains an overview of the public comment process, the comments received on the Draft PEIS during the public review period, and the DOE responses to those comments, including identifying changes made to the Draft PEIS in response to public comments.

The Summary provides a brief overview of the PEIS. It includes the purpose of and need for the Proposed Action, a description of the storage and disposition alternatives including the Preferred Alternative, and the potential environmental impacts resulting from these alternatives.

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## LIST OF ACRONYMS AND ABBREVIATIONS

AADT	Average Annual Daily Traffic
ACEC	Area of Critical Environmental Concern
ACGIH	American Conference of Governmental Industrial Hygienists
AEA	<i>Atomic Energy Act</i>
AEC	Atomic Energy Commission
AGV	automated guided vehicle
ALARA	as low as reasonably achievable
ALE	Arid Lands Ecology Reserve
ANL-W	Argonne National Laboratory-West
APSF	Actinide Packaging and Storage Facility
AQCR	Air Quality Control Region
ARA	Auxiliary Reactor Area
ARIES	Advanced Recovery and Integrated Extraction System
BEA	Bureau of Economic Analysis
BEIR	biological effects of ionizing radiation
BLM	Bureau of Land Management
BOP	balance-of-plant
BPA	Bonneville Power Administration
BWR	boiling water reactor
CAA	<i>Clean Air Act</i>
CANDU	Canadian deuterium uranium
CAS	Chemical Abstracts Service
CCDF	complimentary cumulative distribution function
CEQ	Council on Environmental Quality
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act</i>
CFA	Central Facilities Area
CFR	Code of Federal Regulations
CGTO	Consolidated Group of Tribes and Organizations
CI	confidence interval
CIC	can-in-canister
CLUP	Comprehensive Land-Use Plan
CMR	Chemistry and Metallurgy Research

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COE	Corps of Engineers
Complex	Nuclear Weapons Complex
CRD	Comment Response Document
CRT	Cargo Restraint Transporters
CWA	<i>Clean Water Act</i>
D&D	decontamination and decommissioning
DAF	Device Assembly Facility
DCG	derived concentration guide
DHLW	defense high-level waste
DNB	departure of nucleate boiling
DNFSB	Defense Nuclear Facilities Safety Board
DNL	day and night average sound levels
DNWR	Desert National Wildlife Range
DeD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
DP	Office of Defense Programs
DRCOG	Denver Regional Council of Governments
DWPF	Defense Waste Processing Facility
EA	environmental assessment
EBR	Experimental Breeder Reactor
EDNA	Environmental Design for Noise Abatement
ELA	Energy Information Administration
EIS	environmental impact statement
EM	Office of Environmental Management
EPA	Environmental Protection Agency
ERR	excess relative risk
ES&H	Office of Environment, Safety, and Health
ESA	<i>Endangered Species Act</i>
ETF	effluent treatment facility
FAIR	Forest, Agriculture, Industry, and Research
FCF	Fuel Cycle Facility
FEMA	Federal Emergency Management Agency
FFCA	Federal Facility Compliance Agreement
FFTF	Fast Flux Test Facility

FLPMA	<i>Federal Land Planning Management Act</i>
FMEF	Fuels and Materials Examination Facility
FMF	Fuel Manufacturing Facility
FONSI	Finding of No Significant Impact
FR	Federal Register
FSAR	Final Safety Analysis Report
GBZ	Glass-bonded zeolite
GESMO	Generic Environmental Statement on Mixed Oxide
GIS	Geographical Information System
GMA	<i>Growth Management Act</i>
GMODS	Glass Material Oxidation Dissolution System
HAD	hazard analysis document
Hanford	Hanford Site
HE	high explosives
HEAST	Health Effects Summary Table
HEPA	high-efficiency particulate air
HEU	highly enriched uranium
HEU EIS	<i>Disposition of Surplus Highly Enriched Uranium Environmental Impact Statement</i>
HFEF	Hot Fuel Examination Facility
HI	Hazard Index
HLW	high-level waste
HQ	Hazard Quotient
HRA EIS	<i>Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan</i>
HVAC	Heating Ventilation and Air Conditioning
HWR	Heavy Water Reactor
IAEA	International Atomic Energy Agency
ICPP	Idaho Chemical Processing Plant
ICRP	International Commission of Radiological Protection
INEL	Idaho National Engineering Laboratory
IRIS	Integrated Risk Information System
ISCST2	Industrial Source Complex Short-Term Model Version 2
ISO	International Standards Organization
IWG	Interagency Working Group
K-25	K-25 Site

L/ER	Energy Research Program Office
LA	Limited Area
LAA	Limited Access Area
LANL	Los Alamos National Laboratory
LANSCE	Los Alamos Neutron Scattering Center
LCF	latent cancer fatalities
LDR	Land Disposal Restriction
LEU	low-enriched uranium
LIGO	Laser Interferometer Gravitational-Wave Observatory
LLNL	Lawrence Livermore National Laboratory
LLW	low-level waste
LOB	Laboratory Office Building
LWR	Light Water Reactor
MAA	Material Access Area
MACCS	Melcor Accident Consequence Code System
MC&A	Material Control and Accountability
MD	Office of Fissile Materials Disposition
MEI	maximally exposed individual
MHR	Modular Helium Reactor
MMI	Modified Mercalli Index
MOX	mixed oxide
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NAGPRA	<i>Native American Graves Protection and Repatriation Act</i>
NAS	National Academy of Sciences
NCDC	National Climatic Data Center
NCRP	National Commission of Radiological Protection
NEIC	National Earthquake Information Center
NEPA	<i>National Environmental Policy Act</i>
NERP	National Environmental Research Park
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFS	Nuclear Fuel Services Fuel Fabrication Plant
NHPA	<i>National Historic Preservation Act</i>
NIOSH	National Institute of Occupational Safety and Health
NMSF	Nuclear Material Storage Facility

NMSM	Nuclear Materials and Stockpile Management
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NRF	Naval Reactors Facility
NRHP	National Register of Historic Places
NTS	Nevada Test Site
NTS EIS	<i>Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada</i>
NWI	National Wetlands Inventory
NWPA	<i>Nuclear Waste Policy Act</i>
NWS	National Weather Service
OCRWM	Office of Civilian Radioactive Waste Management
ORISE	Oak Ridge Institute for Science and Education
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
OSHA	Occupational Safety and Health Administration
PA	Protected Area
Pantex	Pantex Plant
Pantex EIS	<i>Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components</i>
PBF	Power Burst Facility
PCV	Primary Containment Vessel
PEIS	programmatic environmental impact statement
PEL	Permissible Exposure Level
PFP	Plutonium Finishing Plant
PFP EIS	<i>Plutonium Finishing Plant Stabilization Environmental Impact Statement</i>
PIDAS	Perimeter Intrusion Detection and Alarm System
PNNL	Pacific Northwest National Laboratory
PPA	Property Protection Area
PRA	probabilistic risk assessment
PSAR	Preliminary Safety Analysis Report
PSD	Prevention of Significant Deterioration

PUREX	Plutonium-Uranium Extraction Plant
PWR	pressurized water reactor
R&D	Research and Development
RCRA	<i>Resource Conservation and Recovery Act</i>
REA	regional economic area
RIA	reactivity insertion accident
RFETS	Rocky Flats Environmental Technology Site
RIMS II	Regional Input-Output Modeling System
RL	Richland Operations Office
ROD	Record of Decision
ROI	region of influence
RSWF	Radioactive Scrap and Waste Facility
RWMC	Radioactive Waste Management Complex
RWMS	Radioactive Waste Management Site
SAR	Safety Analysis Report
SARA	<i>Superfund Amendments and Reauthorization Act</i>
sd	standard deviation
SDWA	<i>Safe Drinking Water Act</i>
SEB	Security Equipment Building
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SISMP	Site Integrated Stabilization and Management Plan
SMR	Standardized Mortality Ratio
SNF	spent nuclear fuel
SNL	Sandia National Laboratories
SRR	standardize rate ratio
SRS	Savannah River Site
Stockpile Stewardship and Management PEIS	<i>Programmatic Environmental Impact Statement for Stockpile Stewardship and Management</i>
Storage and Disposition PEIS	<i>Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement</i>
SST	safe secure trailer
START	Strategic Arms Reduction Talks

TA	Technical Area
TAN	Test Area North
TCLP	toxicity characteristic leaching procedure
TDEC	Tennessee Department of Environmental Conservation
TDS	total dissolved solids
TI	transport index
TLV	Threshold Limit Values
TNRCC	Texas Natural Resources Conservation Commission
TRA	Test Reactor Area
TRU	transuranic
TSCA	<i>Toxic Substance Control Act</i>
TSD	Transportation Safeguards Division
TSP	total suspended particulates
TSR PEIS	<i>Tritium Supply and Recycling Programmatic Environmental Impact Statement</i>
TVA	Tennessee Valley Authority
USFWS	United States Fish and Wildlife Services
USGS	United States Geological Survey
VOC	volatile organic compound
VRM	Visual Resource Management
WAC	Waste Acceptance Criteria
Waste Management PEIS	<i>Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste</i>
WIPP	Waste Isolation Pilot Plant
WMIS	Waste Management Information System
WNP	Washington Nuclear Power
WPPSS	Washington Public Power Supply System
WSA	Weapons Storage Area
WSCC	Western Systems Coordinating Council
WSCF	Waste Sampling and Characterization Facility
Y-12	Y-12 Plant
Y-12 EA	<i>Environmental Assessment for the Proposed Interim Storage of Enriched Uranium Above the Maximum Historical Level at the Y-12 Plant, Oak Ridge, Tennessee</i>
YMSCO	Yucca Mountain Site Characterization Office
ZPPR	Zero Power Physics Reactor

## CHEMICALS AND UNITS OF MEASURE

°C	degrees Celsius
Ci	curie
cm	centimeter
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
Co-60	cobalt-60
Cs	cesium
Cs-137	cesium-137
CsCl	cesium chloride
Cu	copper
dB	decibel
dba	decibel A-weighted
°F	degrees Fahrenheit
ft	feet
ft <sup>2</sup>	square feet
ft <sup>3</sup>	cubic feet
g	gram
G	gravitational acceleration
gal	gallon
Gd	gadolinium
GWd	gigawatt-days
ha	hectare
H <sub>2</sub>	hydrogen
HF	hydrogen fluoride
HNO <sub>3</sub>	nitric acid
hr	hour
I-129	iodine-129
in	inch
k <sub>eff</sub>	effective neutron multiplication factor
kg	kilogram
km	kilometer
km <sup>2</sup>	square kilometer

Kr	krypton
kV	kilovolt
l	liter
lb	pound
m	meter
m <sup>2</sup>	square meter
m <sup>3</sup>	cubic meter
mCi	millicurie
mg	milligram
mi	mile
mi <sup>2</sup>	square miles
min	minute
mph	miles per hour
mrem	millirem (one thousandth of a rem)
MW	megawatt
MWe	megawatt electric
N <sub>2</sub>	nitrogen
nCi	nanocurie (one-billionth of a Curie)
Ni	nickel
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
O <sub>3</sub>	ozone
oz	ounce
Pb	lead
PCB	polychlorinated biphenyl
pCi	picocurie (one-trillionth of a Curie)
PM <sub>10</sub>	particulate matter less than or equal to 10 microns
ppm	parts per million
Pu	plutonium
PuCl	plutonium chloride
PuO <sub>2</sub>	plutonium dioxide
rad	radiation absorbed dose
rem	roentgen equivalent man
RfC	Reference Concentration
RfD	Reference Dose

s	second
SO <sub>2</sub>	sulfur dioxide
Sr-90	strontium-90
t	metric ton
Tc-99	technetium-99
ton	short ton
U	uranium
U-233	uranium-233
U-234	uranium-234
U-235	uranium-235
U-236	uranium-236
U-238	uranium-238
UF <sub>6</sub>	uranium hexafluoride
UNH	uranyl nitrate hexahydrate
UO <sub>2</sub>	uranium dioxide
U <sub>3</sub> O <sub>8</sub>	triuranium octaoxide
VOC	volatile organic compound
yd	yard
yr	year
µg	microgram (one-millionth of a gram)

## METRIC CONVERSION CHART

To Convert Into Metric			To Convert Out of Metric		
If You Know	Multiply By	To Get	If You Know	Multiply By	To Get
<b>Length</b>					
inches	2.54	centimeters	centimeters	0.3937	inches
feet	30.48	centimeters	centimeters	0.0328	feet
feet	0.3048	meters	meters	3.281	feet
yards	0.9144	meters	meters	1.0936	yards
miles	1.60934	kilometers	kilometers	0.6214	miles
<b>Area</b>					
sq. inches	6.4516	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.092903	sq. meters	sq. meters	10.7639	sq. feet
sq. yards	0.8361	sq. meters	sq. meters	1.196	sq. yards
acres	0.40469	hectares	hectares	2.471	acres
sq. miles	2.58999	sq. kilometers	sq. kilometers	0.3861	sq. miles
<b>Volume</b>					
fluid ounces	29.574	milliliters	milliliters	0.0338	fluid ounces
gallons	3.7854	liters	liters	0.26417	gallons
cubic feet	0.028317	cubic meters	cubic meters	35.315	cubic feet
cubic yards	0.76455	cubic meters	cubic meters	1.308	cubic yards
<b>Weight</b>					
ounces	28.3495	grams	grams	0.03527	ounces
pounds	0.45360	kilograms	kilograms	2.2046	pounds
short tons	0.90718	metric tons	metric tons	1.1023	short tons
<b>Temperature</b>					
Fahrenheit	Subtract 32 then multiply by 5/9ths	Celsius	Celsius	Multiply by 9/5ths, then add 32	Fahrenheit

## METRIC PREFIXES

Prefix	Symbol	Multiplication Factor
<b>exa-</b>	E	1 000 000 000 000 000 000 = 10 <sup>18</sup>
<b>peta-</b>	P	1 000 000 000 000 000 = 10 <sup>15</sup>
<b>tera-</b>	T	1 000 000 000 000 = 10 <sup>12</sup>
<b>giga-</b>	G	1 000 000 000 = 10 <sup>9</sup>
<b>mega-</b>	M	1 000 000 = 10 <sup>6</sup>
<b>kilo-</b>	k	1 000 = 10 <sup>3</sup>
<b>hecto-</b>	h	100 = 10 <sup>2</sup>
<b>deka-</b>	da	10 = 10 <sup>1</sup>
<b>deci-</b>	d	0.1 = 10 <sup>-1</sup>
<b>centi-</b>	c	0.01 = 10 <sup>-2</sup>
<b>milli-</b>	m	0.001 = 10 <sup>-3</sup>
<b>micro-</b>	μ	0.000 001 = 10 <sup>-6</sup>
<b>nano-</b>	n	0.000 000 001 = 10 <sup>-9</sup>
<b>pico-</b>	p	0.000 000 000 001 = 10 <sup>-12</sup>
<b>femto-</b>	f	0.000 000 000 000 001 = 10 <sup>-15</sup>
<b>atto-</b>	a	0.000 000 000 000 000 001 = 10 <sup>-18</sup>





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Dear Mr. Nulton:

Thank you for the opportunity to comment on DOE's Draft Programmatic Environmental Impact Statement on the Storage and Disposal of Weapons-Usable Fissile Materials. In addition to my participation at the DOE's public meeting in Richland, WA on April 11, 1996, I would like to submit the following comments and white paper.

My comments are based upon twenty-one years experience with the US Department of Energy, six as Manager of the Hanford Site, four years with the US Department of State as Counselor for Nuclear Policy to the International Atomic Energy Agency in Vienna, Austria, and my current position as President/CEO of Pajarito Scientific Corporation in Los Alamos, New Mexico, a wholly owned subsidiary of British Nuclear Fuels Limited.

I strongly believe that the reactor option for plutonium disposition using mixed oxide fuel is the best course of action for the US to pursue. It has the following advantages over other options:

- It virtually destroys the weapons plutonium making it impossible to use for future weapons.
- It is consistent with the plans of Russia and other major nuclear countries.
- It is irreversible and, therefore, acceptable to non-nuclear weapons states party to the Nuclear Nonproliferation Treaty.

1/08.03.01

WA-023

08 03 01

Comment Number 1

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

**PAJARITO SCIENTIFIC CORPORATION, LOS ALAMOS, NM,  
MICHAEL J. LAWRENCE  
PAGE 2 OF 4**

- It can be fully accomplished based upon existing, proven technology.
- It will generate revenues from power production to reduce the cost of plutonium disposition.

1/08.03.01  
cont.

BNFL has extensive experience in mixed oxide fuel production and can produce fuel from US excess weapons plutonium either in facilities at it's Sellafield plant or a new facility in the US, in full compliance with international safety and safeguard requirements. Several reactor options may be necessary to meet plutonium disposition requirements in a timely manner and BNFL is capable of providing fuel for multiple reactor types.

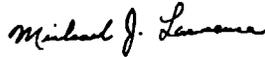
It is important that the PEIS acknowledge that the disposition of weapons usable fissile material is not a unilateral action, but part of an international obligation the US has made with Russia as part of last year's decision to indefinitely extend the nuclear non-proliferation treaty. The nuclear weapons states are committed to reduce their nuclear stockpiles and permanently render excess weapons material unusable for future weapons use. Non-nuclear weapons states, particularly from the lesser developed countries, are closely watching the actions of the US and Russia to see that we quickly and effectively follow through on our commitments. Prolonged storage or reversible disposition options are not acceptable.

2/01.03.00

The burning of excess weapons plutonium is totally consistent with our international treaty obligations and should not be misrepresented as undercutting US nonproliferation policy. Reprocessing and recycle of commercial nuclear fuel for power production is a different and distinct issue which should be made clear in the PEIS.

3/08.03.01  
4/06.00.09

Sincerely,



Michael J. Lawrence  
President/ CEO

WA-023

**01 03 00                      Comment Number 2**

Comment noted. The timing and suitability of alternatives was evaluated in a separate nonproliferation analysis issued by DOE in late 1996.

**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.

**06 00 09                      Comment Number 4**

The Department of Energy agrees with the commentor's statement. The use of MOX fuel derived from surplus Pu does not involve reprocessing/recycling of Pu. All reactors are on once-through fuel-cycles and all the Pu has already been separated such that additional reprocessing is not involved.

**Plutonium Disposition:  
A Global Commitment And Responsibility**

After nearly fifty years of producing tons of plutonium and highly enriched uranium, the United States and the Former Soviet Union are dismantling tens of thousands of nuclear weapons. These countries are faced with the task of ensuring to each other and to all Nuclear Nonproliferation Treaty signatories that this material will never again be used in nuclear weapons. The recent indefinite extension of the NPT would never have been possible without the commitment of the major nuclear weapons states to live up to their treaty obligations with the ultimate objective of eliminating nuclear weapons altogether. Despite its imperfections, the establishment of the NPT has provided the legal basis to detect and prevent nuclear proliferation, and its indefinite extension is a major accomplishment.

There is general agreement that excess highly enriched uranium can be blended down into low enriched fuel for use in nuclear power reactors. The blending process alone is considered adequate to render the uranium unusable for nuclear weapons since the enrichment needed to return the blended material back up to weapons grade, is the same for either fresh fuel or blended weapons uranium. Plutonium disposition options however are not readily agreed to. Since there is no ready supply of non weapons plutonium (such as plutonium 240) which could be used to dilute and denature plutonium, and even reactor grade plutonium can be fashioned into a crude nuclear device, a blending approach similar to uranium is not considered acceptable.

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 oxide 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. While the United States has no such policy or strategy, Russia does plan to recycle plutonium both from spent fuel and excess weapons. The United Kingdom, France, Japan, China and several other Western European countries also support plutonium recycle.

The United States plans on direct disposal of spent power reactor fuel. Direct weapons plutonium disposal in a geologic repository in a glass form is under consideration. This would be difficult to recover and would be inaccessible for diversion except under extreme and easily detected means. It is questionable however if it would satisfy the requirements of other countries since it is reversible. If Russia is physically destroying their excess plutonium they are not likely to settle for anything less on the part of the United States. Even if the United States could convince Russia not to recycle but to store and dispose of vitrified plutonium, it is questionable if the non nuclear weapons states would be agreeable.

The burning of plutonium in the United States would create a number of problems. First, it is not part of fuel cycle plans for commercial reactors. The regulatory basis and facilities, both fuel fabrication and reactors, to enable plutonium burning to occur would have to be provided. There is no current economic or energy driving force for U.S. plutonium utilization and there is substantial public opposition. But the objective of

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MICHAEL J. LAWRENCE  
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plutonium burning would not be wide scale commercial utilization of plutonium for power production, but the destruction of excess weapons plutonium so that this material could never be used in nuclear weapons. Facilities to dispose of the plutonium under any option, including vitrification, would have to be provided with the accompanying regulatory requirements and environmental impacts and risks. Both options, burning or disposal, would require tight government control and security as well as international safeguards by the International Atomic Energy Agency.

Given these considerations, the burning of plutonium has the advantages of first, destroying plutonium and making it impossible to use for future weapons; second, being consistent with the plans of Russia and other major nuclear countries; third, being irreversible and therefore, acceptable to other non nuclear weapons states; fourth, can be accomplished based upon existing technology and fifth, power produced as a by product of burning can be used to offset some of the costs of plutonium destruction.

There are several locations in the United States where plutonium burning could be performed. It would be desirable to choose a location that would minimize transportation, further plutonium contamination, and new facility construction. Independent regulatory control should be required and international safeguards by the IAEA are essential. The pace at which the plutonium is destroyed, in my opinion, is not as important as beginning to make a start on the destruction.

The Hanford Site has the facilities and experience to burn excess weapons plutonium in the next five to ten years but radically strengthened oversight and controls would be necessary. Other sites also have many of the same capabilities. Washington State has borne a large portion of the impact, both negative and positive, from past plutonium production. It has the capability to also play a major role in the solution to the plutonium disposition problem.

Regardless of which plutonium disposition option is chosen, and which location is selected, the United States has international obligations to greatly reduce its nuclear stockpile and permanently render its excess weapons material unusable for future weapons use. The U.S. cannot unilaterally select which option it will pursue, but must meet the approval of Russia and the international community. Strict safety regulation by an independent authority and safeguards by the IAEA are a prerequisite. The benefits from promptly and permanently beginning to destroy excess nuclear weapons material are too great not to pursue with the same determination and urgency as the Manhattan Project.

Michael J. Lawrence  
September 25, 1995

Presented at the Plutonium Roundtable: Risks and Solutions  
Tri-Cities and Seattle, Washington  
October 5 - 7, 1995

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PANGBORN, SALLY MACARTHUR, SEATTLE, WA  
PAGE 1 OF 2

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

Name (optional): Sally MacArthur Pangborn  
Address (optional): 277 35th Ave E  
Seattle, WA 98102-8931  
*Don't need heavy response*  
*Nothing. Let's be helpful*

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 Management  
Fissile Materials Disposition  
Washington, D.C. 20026-3786  
P.O. Box 23786

or, you can call this toll-free number to leave comments by phone: 1-800-800-5156. 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 zirconia, or ceramics.

*Don't need heavy response*  
*Nothing. Let's be helpful*

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.

*Don't need heavy response*  
*Nothing. Let's be helpful*

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

*Don't need heavy response*  
*Nothing. Let's be helpful*

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.

*Don't need heavy response*  
*Nothing. Let's be helpful*

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PANGBORN, SALLY MACARTHUR, SEATTLE, WA  
PAGE 2 OF 2

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.

I really don't know what process is the best. It is  
my unimpaired opinion that we have the ball, by the  
fact and really don't know what to do first. We should  
try to get the cooperation of all the countries that  
do nuclear to discuss the problem and try to agree  
on the procedure to follow.  
If we could lead the way to a safer energy source,  
help other countries to get out and do away with the  
nuclear that is so expensive and dangerous, our future  
could be safer. I want to see that kind of nuclear power  
which we should encase in plutonium in glass or bury  
it and make it so that it is so expensive and expensive  
continues to use it <sup>from</sup> it is so expensive and expensive.  
The goal should be what is safe, simple, and cheap.  
Big companies should not make the policy.  
It is an international problem and must be dealt with  
internationally. The dangerous waste should not be  
reaccumulated by further use of a system that is costly  
and that has created so many problems - Chernobyl,  
3 mile island, Hanford, Savannah, etc., etc.  
We need a new standard. Let's not worry about big business,  
profits, jobs, etc. Let's get rid of the waste, and that we  
can and not make any more and set a good example  
for the rest of the world to follow. This is an  
international problem and it must be dealt with  
internationally.

Sally MacArthur Pangborn  
Seattle

1/08.03.01  
2/01.00.00

M-232

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.

01 00 00 Comment Number 2

The Department of Energy has the responsibility to implement the President's Nonproliferation Policy by finding a path forward for the disposition of surplus weapons-usable Pu which is not wasteful. Disposition of this Pu would generate wastes and spent nuclear fuel. Operation of the disposition facilities would meet applicable regulations and standards, and external regulatory oversight would be used as appropriate. Previous incidents at Chernobyl and other locations would be used as lessons learned to prevent reoccurrence.

Storage and Disposition of Weapons-Usable  
Fissile Materials Final PEIS



May 2, 1996

U.S. Department of Energy  
Office of Reconfiguration  
P.O. Box 3417  
Alexandria, VA 22302

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

Re: Public Comment on the Department of Energy's Stockpile Stewardship and Management (SSM), Storage and Disposition (S&D) of Weapons-Usable Fissile Materials, and the Pantex Site-Wide Draft Programmatic Environmental Impact Statements (PEISs).

Dear Sirs:

Thank you for the opportunity to comment on the U.S. Department of Energy's (DOE) Draft Programmatic Environmental Impact Statements (PEISs) on Stockpile Stewardship and Management (SSM) and Storage and Disposition (S&D) of Weapons-Usable Fissile Materials, as well as the Pantex SWEIS. Also, please consider this our comments on the Pantex Site-Wide Environmental Impact Statement (SWEIS).

As we explained in our communication on these subjects during the past few years, we were appointed by the City Commission of the City of Amarillo, Texas, on February 8, 1991 to co-chair Panhandle 2000, a group of Amarillo-area citizens interested in the environmentally sound retention and expansion of Pantex. We were also requested to organize community support for Pantex. Ours is a broadly representative organization of individuals and entities who reflect the strong support of the vast majority of area residents for DOE's work in the Texas Panhandle at Pantex.

The issues addressed in the three Drafts are of paramount concern to the people sharing the Texas Panhandle with the Pantex Plant and the DOE. The dramatic employment reductions forecasted in the Draft SSM PEIS will severely impact the Panhandle economy. While Pantex is willing to participate, if necessary, in efficient downsizing of the nuclear weapons complex, any reductions at Pantex should come only after intensive cost and technical analyses to assure that national security needs are still being met in a cost-effective manner.

M-123

PANHANDLE 2000, AMARILLO, TX,  
JERRY JOHNSON AND WALES MADDEN, JR.  
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We adamantly disagree with the statement in the draft PEIS that there is no significant cost benefit to siting HE at Pantex as opposed to the national labs. Earl Whiteman of DOE's Albuquerque Field Office admitted in the April 23 PEIS hearing that it would be more expensive to relocate HE to LANL and LLNL, but he attempted to justify this saying it was "only for a one-time cost." This analysis raises serious questions as to the criteria used to determine the cost considerations for this and other transfers. The capital outlay alone necessary for transfer is admittedly cost-prohibitive; and while transferring HE functions may be less expensive than transferring other functions, the least expensive alternative is to maintain those functions at Pantex. DOE appears to be overlooking or ignoring other glaring considerations like the upgraded facilities and trained personnel at Pantex versus those present (or, more accurately, absent) at the labs. The assertion in the Draft SSM PEIS that it might be cheaper to transfer HE to the labs than it would be to downsize at Pantex is fantastic and defies logic since transfer would still ultimately require some duplication of facilities. In order to reach such a conclusion, one must assume that capital, training, and other costs are not taken into account. Incredibly, the Draft SSM PEIS assumes that the labs, which have failed in every instance to successfully implement *any* production on the magnitude necessary to meet national security needs, could for the first time accomplish this with high explosives. At the public hearings, Mr. Whiteman admitted that Pantex has both capabilities necessary for high explosives work (the quality assurance component), while the labs only have one (the ability to "press" explosives, but at a level which does not match Pantex). Finally, DOE must account for the costs and safety risks associated with transportation of high explosives components between the labs and Pantex. There is no justifiable reason for initiating the unnecessary costs and increased risks associated with transferring HE functions to the labs.

C. New construction/stewardship activities at Pantex.

Until recently, DOE concentrated research and development functions at the labs and production functions at the industrial sites. It appears DOE is headed in a new direction. While the drafts propose to continue concentrating all stewardship functions and to transfer particular industrial functions to the labs, DOE overlooks the potential for Pantex to perform new stewardship functions complimentary to its current management functions. The scientific, technical, and managerial competence presently at Pantex, combined with additional technical resources from Mason & Hanger, Battelle, and the Higher Education Consortium, offer the human and material resources necessary for the future needs of the SSM Program.

Pantex has the necessary resources, with the required safeguards and security, to meet the goal to downsize and/or consolidate facilities while providing an effective and efficient production capability for a smaller stockpile. Facilities are currently in place to perform almost all the necessary mission elements of the stockpile management program, a fact that should not be overlooked as the DOE seeks to preserve the integrity of the nuclear stockpile under increasing budgetary constraints.

The obvious advantage of Pantex is, by utilizing the facilities already in place, DOE could eliminate the capital cost for establishing the same capabilities elsewhere. The cost of unnecessarily duplicating facilities (*currently in place at Pantex*) at another site would cost the DOE tens of millions of dollars in infrastructure alone, notwithstanding the additional expense of related transportation, environmental remediation, start-up and training costs required at a redundant site which would cost taxpayers additional millions of dollars.

Another fact that should not be overlooked is that Pantex is the candidate site located nearest to the LANL, the preferred site for the Atlas facility, and the planned site for plutonium pit fabrication. This facility is key to DOE's ability to address stockpile reliability and safety issues by means other than nuclear testing due to the indefinite extension of the nuclear testing moratorium in July 1993. The conclusion to be drawn is that the location of SSM Program functions at Pantex would not only take advantage of current storage and dismantlement capabilities, but would also capitalize on the geographical proximity of Pantex and LANL that would be conducive to the exchange of technological information necessary for effective management of a smaller nuclear weapons complex.

In addition to Pantex, the Texas Panhandle also boasts of the Amarillo National Resource Center for Plutonium (ANRCP) which is taking a lead role in environmental and nuclear research. The ANRCP is operated by the Higher Education Consortium, comprised of three of the nation's preeminent university systems (The Texas A&M University System, Texas Tech University System, and The University of Texas System). Consistent with the SSM Program non-proliferation objectives, the Consortium is coordinating the U.S.-Russian Summit Working Group on the Disposition and Accumulation of Fissile Materials in order to ensure that the nation's arms-control objectives are met. The involvement of the Consortium adds an academic dimension of research excellence and third party monitoring that ensures continued competency of the people who must make the scientific and technical judgments related to the safety and reliability of nuclear weapons. We want to stress that we view the role of the ANRCP as complimentary to the labs, and supplementing, not supplanting, their functions.

The Consortium and the development of the ANRCP are logical extensions of the current allocation of functions within the U.S. nuclear weapons complex. In light of continuing changes in the national security picture for the U.S., and given the importance of resolving dismantling issues and issues related to the future stewardship of the nuclear stockpile, *the siting of research and technical functions at Pantex for the SSM Program is highly appropriate.*

The significant nuclear stockpile still present in the former Soviet Union under sometimes suspect surveillance makes our continued cooperation with Russia regarding management of the nuclear stockpile critical to international security. The key role the

**PANHANDLE 2000, AMARILLO, TX,  
JERRY JOHNSON AND WALES MADDEN, JR.  
PAGE 6 OF 12**

Amarillo National Resource Center for Plutonium is playing for DOE in SSM and fissile materials activities with Russia argue for an expanded role for Pantex.

Accordingly, it is appropriate to consider Pantex as an alternative site for future defense missions. The location of new activities at Pantex would ensure that core technical capabilities are preserved at a location that can secure them at the most efficient cost to the American taxpayers.

**II. S&D PEIS.**

**A. Fissile Materials/Plutonium Storage and Disposition at Pantex.**

In addition to DOE's hesitation to name a preferred site for HE, we are also concerned that the Draft S&D PEIS did not list a preferred site for plutonium storage and disposition. Whether the decision reached is for "No Action" or "Consolidate," plutonium will continue to be present at Pantex through assembly/disassembly operations. President Clinton last year announced that he was declassifying 38.2 metric tons of weapon-grade plutonium as excess to national security needs. Of that amount, 21.3 metric tons are located at Pantex. For this reason alone, Pantex should be the preferred site for storage, disposition, and utilization. Doing so would avoid the economic and other attendant costs of transporting plutonium to a new site as well as the massive infrastructure costs of unnecessarily recreating a Pantex-like facility at another site.

1/08.03.01  
cont.

**1. Storage.**

As aforementioned, Pantex is already safely storing most of the weapons-usable surplus plutonium from the dismantled stockpile. Pantex presently has more than 8,500 plutonium pits stored on site and can easily be expanded to hold more than 20,000. We fully support the proposed action in the SWEIS to expand Pantex's storage capabilities to 20,000 pits. The plant is also scheduled to be upgraded to prepare the storage bunkers for receipt of plutonium pits relocated from Rocky Flats. This will increase further the plutonium stockpile present at Pantex.

One major concern is, as it is currently drafted, the S&D PEIS does not emphasize a continuation of the Strategic Plutonium Reserve necessary to meet continued national security needs. Once again, storage of the strategic reserve is a logical mission at Pantex as an extension of its assembly/disassembly functions and long-term plutonium storage consideration. Neither the SSM PEIS nor the S&D PEIS takes the logical next step by naming Pantex as the site for storage of strategic and surplus plutonium. At the hearing, Earl Whiteman of DOE said at the hearing "it made sense" to collocate strategic storage and assembly/ disassembly to minimize transportation, and to collocate strategic storage with surplus storage, since the strategic stockpile may be declared surplus at some point. Mr. Whiteman said that Pantex has a facility which is "exactly the right size" for strategic storage, and that there was sufficient space at Pantex for all functions. DOE should not

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Comment Number 2

The issue of strategic reserve, as it relates to national security needs, is addressed in the Stockpile Stewardship and Management PEIS.

only recognize that storage should follow disassembly, but also that certain disposition options should follow storage to minimize transportation and other costs. It is important that a stockpile of strategic reserve remain a stated objective of S&D functions included in either plutonium storage or pit fabrication duties. Since Pantex also is in close proximity to LANL, the preferred site for pit fabrication, designating Pantex as the alternative site for a strategic reserve would be the most cost-effective choice.

With regard to storage, the focus should be squarely on the issue of storing the pits safely, and we fully support storage of plutonium and other fissile materials at Pantex under both the "no action" and "long-term" alternatives, given adequate assurances that such storage is safe and environmentally sound. In addition to extensive environmental safety protections already in place, Pantex has built an elaborate security system to protect stored plutonium from potential theft. Safe storage is critical for maintaining the integrity of the stockpile and our commitment to international safety. Pantex is the only site currently capable of this level of protection to prevent possible proliferation of stolen weapons-grade plutonium.

Ensuring safety and accountability of our surplus plutonium stockpile can best be accomplished through the construction of a new consolidated storage and staging facility at Pantex. Such a facility would:

- Strengthen national and international arms control efforts by fostering continued and enhanced cooperation with Russia on transparency issues, and bilateral agreements to monitor dismantlement and maximize options for the disposition of surplus weapons-usable fissile materials;
- Ensure that storage and disposition of weapons-usable fissile materials is carried out in compliance with environment, safety, and health (ES&H) standards;
- Consolidate all nuclear materials which would provide significant cost savings for surveillance, storage, and disposition.

Siting a new consolidated storage facility at Pantex also would further the "stored weapons standard" which envisions the same high standards of security and accounting applied to storage of nuclear weapons being maintained for weapons-usable fissile materials throughout the process of dismantlement, storage and disposition. Pantex has put in place, and is accustomed to maintaining, the high security and accounting standards for nuclear weapons storage for decades as the Complex' sole site of disassembly.

Siting long-term storage at Pantex also will help us achieve the Administration's nonproliferation goals. No current treaty requires us to disassemble nuclear warheads, but only to disable the delivery vehicle; the warheads can remain intact under treaty, and the U.S. is disassembling voluntarily and unilaterally. If the U.S. is to strive for reciprocity, and encourage Russia and other countries to "go the extra mile" and disassemble nuclear arms as opposed to merely "dismantling" them, Pantex, being the sole U.S. site for disassembly, would be the consummate site for storage of fissile materials.

01 03 00

Comment Number 3

Comment noted.

1/08.03.01  
cont.

3/01.03.00

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PANHANDLE 2000, AMARILLO, TX,  
 JERRY JOHNSON AND WALES MADDEN, JR.  
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We disagree with DOE's findings that under either the "No Action Alternative," or the "Long-Term Storage and Disposition Alternatives," that Pantex has the greatest potential to experience adverse cumulative impacts. This conclusion is almost wholly based on what DOE terms as the "small, compact area" in which Pantex is sited. This conclusion fails to take into consideration the fact that DOE already owns the 10,000 acres on which Pantex is located, and that more land is available for any new or upgraded facilities, at no cost to the federal government. Further, Pantex is located 14 miles from a central city, the finding that cultural, socioeconomic (such as level of road service in the event of construction), and public and occupational health and safety impacts would be greater at Pantex is incorrect. For example, to imply that intersite transportation impacts would be greater at Pantex is absurd, since (1) Pantex currently houses the vast majority of plutonium pits, thus avoiding the lion's share of any transport (and the attendant budgetary, environmental, and political costs related thereto) if it was selected as the preferred alternative for S&D; and (2) is the site closest to LANL, the proposed site for pit fabrication. Even if one were to accept such a finding regarding Pantex, the differences between candidate sites would be so small to demand that they not be seriously considered as an accurate or meaningful criterion on which to base selection.

4/09.00.04

If DOE chose not to construct a new consolidated storage facility, we would support the upgrade of Pantex storage capability necessary to comply with current design and environment, safety, and health requirements.

6/08.03.01

## 2. Disposition Alternatives.

DOE has not yet decided on the preferred alternative for disposition or the site for disposition, but whatever decision is reached, Pantex should be the preferred site since it is already the current storage site for plutonium removed from dismantled weapons and the site of strategic plutonium reserve.

1/08.03.01  
cont.

While the implementation of any disposition option must be environmentally sound, the ultimate decision of which options will be chosen will be based largely on national security considerations, especially the success or failure to reach accord with Russia on these issues.

While the U.S. should take any unilateral actions it deems appropriate if its national security interests are maintained, the volatility of the former Soviet republics and the changing world scene dictate that reciprocity guide our actions. The Draft S&D PEIS identifies three major alternatives as reasonable for plutonium disposition: immobilization in glass or ceramic form; burning in reactors as MOX fuel; or deep burial in boreholes either directly or in immobilized form.

7/01.03.00

How do these options fit into reciprocity? The White House Fact Sheet on Nonproliferation contains the policy statement that the U.S. should "seek to eliminate...the accumulation of stockpiles of ...uranium and plutonium," including those from civil nuclear

M-123

09 00 04

### Comment Number 4

Based on comments received, the Summary was revised. The bar charts providing the comparison of impacts for both storage and disposition were deleted from the Summary. The related text was revised to clarify the comparison of impacts and to delete reference to "adverse" impacts. 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. The cumulative impact analysis in Section 4.7 does not attempt to rank the potential for cumulative impacts at the sites. The Summary has been revised to better reflect the cumulative impact analysis in Section 4.7.

10 00 00

### Comment Number 5

The Pu material at Pantex, as well as Pu and HEU at the other five sites, was assumed to be present for the transportation analysis. For the storage alternatives, Table 4.4.3.2-2 of the Draft PEIS indicates Pantex would have the lowest number of potential fatalities. For disposition, almost all surplus pits were assumed to be at Pantex. This is indicated by Pantex having the lowest number of potential fatalities for pit disassembly in Table 4.4.3.3-1 of this PEIS.

08 03 01

### Comment Number 6

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

01 03 00

### Comment Number 7

The PEIS addresses the environmental impacts of the reasonable alternatives for DOE's Proposed Action. Analyses of cost, schedule, technical, and Nonproliferation Policy impacts are described in separate documents to support DOE's ROD. The cost, schedule, and technical analyses were made available for public review beginning in July 1996. The nonproliferation

programs. It is unrealistic to believe that any disposition decision by the U.S. which does not contemplate the use of plutonium as fuel will cause other countries - either with or without nuclear weapons - to abandon the use of plutonium in reactors. For example, Russia, with its large investment in its nuclear infrastructure, and its lack of financial means to convert to other forms of energy, is highly unlikely to forego the use of nuclear power, including the use of plutonium. Also, European nations like France, which lack the vast natural resources of oil, gas, and coal which the U.S. enjoys, have little incentive to give up their reliance on nuclear power. If that is the case, and in full recognition that reactor-grade plutonium can easily be used in weapons, the U.S. will be compelled for "reciprocity" and national security reasons to maintain plutonium in pits for some period of time and plan to utilize it through the mixed oxide fuel option. The U.S. cannot lead by positing unacceptable or unfeasible options; it must recognize the circumstances which it and other nations face, and pursue a course which will benefit its national security goals, and possibly other goals as well.

We are not convinced that plutonium is more of a liability than an asset. Why can't we make swords into plowshares, and utilize these resources - which took so much time, effort, and money to develop - and examine the peaceful uses of these materials? Examination of possible beneficial uses is one of the primary purposes of the research being conducted at DOE research facilities across the country. We strongly support, as part of this research, the review of long-term options for plutonium disposition, including environmental considerations. This review can involve research and policy study on the best forms of plutonium for storage, disposition, and utilization, storage options, security and safeguards and other issues.

Further, we believe that this option, with its emphasis on education and research, will help reverse the "brain drain" which could adversely affect the Nuclear Weapons Complex as its primary function changes. The Defense Nuclear Facility Safety Board has said that the government is losing most of its veteran experts. While DOE has attempted to address this problem through instituting a program to attract new young scientists to the Complex, we believe that more young scientists will have the incentive to develop and maintain expertise in these disciplines if the types of serious research which the "beneficial use" option offers is available through DOE.

The questionable efficacy of the "irreversibility" of vitrification or boreholes argues for use in reactors, at least for pits and other "MOX-able" plutonium. While we recognize that some plutonium "scrap" can only be disposed through avenues other than MOX, the extraordinary advances in science, especially in this important area, render naive the notion that sometime in the near future the technology to "reverse" vitrification, boreholes, or any other such "waste generating" process will be readily available to those who desire it.

Accordingly, we support a course which will provide a tangible demonstration to the affected citizens that there exist long-term disposition options which both fit our national security interests as well as a common sense desire to reap a beneficial use from these materials. The Administration should consider a joint program between Russia and

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 on the Nonproliferation Policy as it relates to the Proposed Action and alternatives.

01 06 00                      **Comment Number 8**

Comment noted.

08 03 01                      **Comment Number 9**

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

8/01.06.00

9/08.03.01

M-123

PANHANDLE 2000, AMARILLO, TX,  
 JERRY JOHNSON AND WALES MADDEN, JR.  
 PAGE 10 OF 12

the U.S. (and perhaps other countries) which actually would take a plutonium pit apart, make plutonium oxide, fabricate mixed oxide fuel, and burn the fuel in a commercial light water reactor.

Such a policy would meet the "spent fuel standard" by making the plutonium as inaccessible for weapons use as the plutonium in spent nuclear fuel from commercial power reactors. It also recognizes the fact that the only course to safe disposition is to separate the atom through fission. It also looks beyond the spent fuel standard by maximizing the options available to DOE and the Administration with regard to disposition.

**3. Environmental Safety and Health Criteria.**

**a. Airplane Crash Risk Analysis:**

The 1994 "Finding of No Significant Impact" arising from the Environmental Assessment found an airplane crash/accident occurring at Pantex to be an "incredible event" not justifying the preclusion of additional storage at Pantex. Even so, the plant subsequently worked with the Department of Defense and the FAA to reduce flight paths over Pantex, and took other steps to ameliorate the situation. However, the Draft SWEIS does not account for the reduced flight paths thereby exaggerating the probability for airplane accidents at Pantex and their resulting impacts, and, incredibly, increases the probability of a crash from the 1994 "FONSI." In the recent hearings, Nan Founds responded to this concern by saying that DOE is formulating its own analysis not dependent on FAA data, but also stated there were serious problems with DOE's analysis, which would be addressed. In its initial analysis, DOE is ignoring not only credible work already completed, but also the obvious reduction in accident potential for use in determining the ES&H of siting new functions at Pantex. This undermines the perceptions for fair and equal criteria for use in accurately comparing the various sites under consideration. We urge DOE to correct the analysis and avoid the wrongful preclusion of Pantex for consideration of additional functions.

10/09.09.04

**b. Environmental Impacts of Potential Increased S&D Functions:**

In the Draft S&D PEIS, DOE characterizes Pantex as having the "greatest potential" to experience adverse cumulative impacts from an increased role in plutonium storage and disposition. However, this characterization is way beyond the means of DOE's cursory analysis. NEPA regulations require that environmental impact statements discuss "significant" impacts and support these with evidence. DOE has taken license to ignore these regulations by discussing potentiality and susceptibility without basing these in fact. We object to this type of characterization which unfairly and inaccurately misrepresents Pantex's ability to handle an increased role in S&D. These conclusions also totally contradict those contained in the SWEIS which characterize the impacts as "minimal" and "negligible." It is imperative that DOE correct the inaccurate mischaracterizations before making its final decisions for plutonium storage and disposition missions.

11/01.00.00

M-123

09 09 04

**Comment Number 10**

Appendix R has been added to the Final PEIS to discuss aircraft crash and radioactive release probabilities for proposed storage and disposition facilities at Pantex.

01 00 00

**Comment Number 11**

Based on public comments, the Summary of the Draft PEIS was revised. All revisions appear in the Summary of the Final PEIS.

**4. Cost savings due to avoidance of transport of special nuclear materials.**

Regardless of the final decision for storage and disposition, DOE must make accurate budgetary comparisons a primary consideration in its analysis of where to site these functions. *DOE should insist that budgetary comparisons between Pantex and other sites are accurate, and include capital and transportation costs, and also take into consideration the political consequences of transfers from Pantex.* We also urge DOE to compare on a "side-by-side" basis all six candidate sites for: (1) Conduct of operations, (2) Implementation thereof; (3) Security, (4) Relationship between management, unions, community, (5) Quality system programs; (6) OSHA/ ES&H envelope; (7) Engineering systems; (8) Radiation safety, (9) Applied technology, (10) Training programs, (11) Explosive and nuclear safety programs; and (12) Employee involvement in daily operations.

12/07.00.00

Accurate comparisons between all sites under consideration should once again make Pantex the preferred site. Maintaining and expanding the interim storage facilities at Pantex would all but eliminate the significant transport costs, and the attendant environmental and political risks involved with moving these functions to another site. Eliminating the unnecessary transportation of radioactive materials, will translate into less cost and greater public safety and protection. Ignoring or miscalculating the risks and costs associated with weapons materials would be a serious omission.

We are confident that any fair comparison of economic and political costs will favor Pantex over the other sites included in consideration, since recreating this infrastructure at another site would be cost-prohibitive.

**5. Economic factors.**

Pantex is perhaps the most cost-effective alternative for any new construction of SSM and S&D facilities if DOE pursues that course. First, labor costs are low. The existing work force in the Amarillo area has the skills necessary to meet the construction and operation requirements for any new functions and to do so at highly competitive wage rates. With a civilian labor force of 110,200, the Amarillo Metro Area can provide the project with a large, well-educated, and comparatively inexpensive labor pool. Average wage costs for manufacturing employment in Amarillo are 18% below the national average. Second, utility costs are highly competitive. According to the Utility Data Institute, the SPS industrial rate currently ranks in the lowest 11 percent among U.S. investor-owned utilities. SPS has a long history of low rates and presently offers the lowest rates among investor-owned utilities in Texas. If new facilities were operational now, SPS's standard rate for this class of firm service at 80 percent load factor would average 3.2 cents per kWh. Also, land to house new construction is readily available. The Department of Energy presently owns the 10,000 acres on which the Pantex plant is located. More land is available for any new facility, at no cost to the federal government.

13/09.08.04

M-123

07 00 00

**Comment Number 12**

Comment noted.

09 08 04

**Comment Number 13**

Selection of the Preferred Alternative for the Storage and Disposition PEIS was based on numerous factors, including socioeconomic. All of the candidate sites identified in the PEIS are considered reasonable alternatives for long-term storage. The site selection reflected in the Preferred Alternative is based, in part, on the ability of DOE to use the available work force and the existing infrastructure to minimize the cost of implementation.

PANHANDLE 2000, AMARILLO, TX,  
JERRY JOHNSON AND WALES MADDEN, JR.  
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Finally, the City of Amarillo has excess water capacity to an extent enjoyed by no other candidate site, without depleting the Ogallala Aquifer.

6. Public and political support.

In addition to the economic factors listed above, local support for the Pantex Plant, and its expansion, is extraordinarily strong. A Shipley and Associates poll of the four county area surrounding the plant (Armstrong, Carson, Potter, and Randall) found that 99% of the respondents believe that Pantex is important to the local economy. 88% said that Pantex is a facility that they can be proud of. 79% favored Pantex expansion, and 88% agreed that Pantex is safe. In May 1991, a Lance Tarrance poll showed that 85% of area residents supported an expanded Pantex. Also, a July 1991, poll conducted by the Amarillo Globe-News showed that almost 75% of the respondents favored expansion of Pantex. Consideration of the results of the 1991 Tarrance poll (Republican) and the Shipley poll (Democratic) reveals that regardless of party affiliation of the pollster or time the poll is conducted, Pantex enjoys the overwhelming support of Panhandle residents, at a level perhaps unsurpassed by any other Complex site.

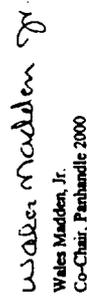
Area and state elected public officials are virtually unanimous in support of current and expanded plant operations. Essentially the entire 32-member Texas Congressional Delegation has pledged support for expansion and will be active in the effort in the future, as well as the Governor, Lieutenant Governor, area legislators, and other public officials. Thus, the message is clear from the nation's elected representatives that the role that Pantex plays in the future of the weapons complex is vital to the nation's nuclear deterrent and the safety and reliability of nuclear weapons.

III. Conclusion.

On all accounts, Pantex clearly is the best and most cost-effective alternative to DOE for stewardship and management, storage and disposition, and other defense-related missions. We respectfully urge DOE to designate Pantex as the preferred alternative site for all existing and new functions in DOE's Final PEISs and Records of Decision. Thank you for the opportunity to share our thoughts and concerns with you.

Yours truly,

  
Jerry Johnson  
Co-Chair, Panhandle 2000

  
Wales Madden, Jr.  
Co-Chair, Panhandle 2000

PANHANDLE AREA NEIGHBORS AND LANDOWNERS,  
PANHANDLE, TX, DORIS AND PHILLIP SMITH  
PAGE 1 OF 7



June 6, 1996

Mr. J. David Nulton  
U.S. Department of Energy  
Office of Fissile Materials Disposition, MD-4  
Forrestal Building  
1000 Independence Ave., S.W.  
Washington, DC 20585

Re: Storage and Disposition of Weapons-Usable Fissile Materials  
Draft Programmatic Environmental Impact Statement

Dear Mr. Nulton:

Our grassroots group of Panhandle Area Neighbors and Landowners (PANAL) believes very strongly that this document is inadequate in so many ways. In light of this and in addition to our endorsement of the May 6 letter to Secretary of Energy Hazel O'Leary, requesting that DOE produce an adequate draft PEIS after all our concerns have been addressed, we submit the following comments.

The document lists reasonably foreseeable future actions that have the potential to be implemented at Pantex as: Long-term Storage and Disposition Alternatives, Waste Management Alternatives and Stockpile Stewardship and Management Alternatives.

As is stated numerous times throughout the document, "Pantex has the greatest potential to experience adverse cumulative impacts" in all areas except for biological resource; we beg you to keep these statements in your final document and reinforce them with the historic facts from this area and with (Heaven forbid) 'common sense'.

As the people who live adjacent to Pantex we realize more than anyone else the tremendous adverse impacts the site presently has on our water resources, air quality, land resources, soil, vegetation, public and occupational health and safety, the present agricultural economy, cultural resources, and socioeconomics. With the addition of any one of the possible future actions at Pantex - this area stands to lose not only its economic base and stability, but also those resources which cannot be defined with facts and figures.

We feel that it is necessary to let you know that the people of the Amarillo Area are gravely concerned about the possibility of plutonium storage, processing, waste disposal, reactor possibilities, etc., as outlined in this document.

1/08.03.01

M-280

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.

**PANHANDLE AREA NEIGHBORS AND LANDOWNERS,  
 PANHANDLE, TX, DORIS AND PHILLIP SMITH  
 PAGE 2 OF 7**

Plutonium storage is extremely dangerous, the facilities Pantex presently uses are insufficient, outdated and totally inadequate for future storage. To construct new facilities at Pantex to store plutonium, when there are more than adequate facilities at Manzano Weapons Storage Site at Kirtland Air Force Base, is completely unrealistic and economically not expedient. For the DOE to disregard this alternative in the Draft PEIS is reprehensible. The Manzano WSS is considered a reasonable alternative in the Pantex Site Wide EIS - it should also be analyzed as a reasonable alternative in the S&DPEIS. To disregard Manzano WSS because of nearby population, our concern is - are the people of the Texas Panhandle expendable? After all, we are helping to produce the food that the people of Albuquerque eat!

2/01.04.00

The plutonium processing options do not belong over the Ogallala Aquifer, which is our sole source of water. The contamination created at the facilities where this work has been done should be proof enough to the DOE that to contaminate another site is ludicrous. There is no technology to prevent this disaster from happening at Pantex, which lies on top of the Ogallala Aquifer and in the center of production agriculture.

3/09.04.04

The disposition options are not adequately analyzed. MOX fuel should not even be considered because of environmental, non-proliferation, economic, health and safety reasons and impacts. The nuclear industry is pushing this option with no regard for the communities which have to endure all the undesirable consequences of such processes. DOE should eliminate this option entirely.

4/08.03.01

This area must not be subjected to any reactor or reactors, not only because of impacts on the environment, we do not have sufficient water, but also because of the waste generated. Burning Pu in a reactor does not totally destroy the Pu and the waste generated by these reactors will be radioactive and in all probability remain on site. Pantex does not have the facilities to handle this type and/or amount of waste and storage over our water source is unjustifiable.

3/09.04.04  
cont.

The agricultural economy of the Panhandle/Amarillo area is totally disregarded in this PEIS. This is the Cattle-Feeding Capitol of the world. The cereal grains produced here are sent all over the world. We feed the hungry of the world, while at Pantex DOE builds weapons of mass destruction to kill people. The dichotomy that exists here is heart-wrenching.

5/09.08.04

You may have just learned that our Ogallala Aquifer has been found to have contamination from the high explosives used at Pantex. How does the DOE plan to compensate the people of this area for this tragic happening? What will the final result be for agriculture and our agricultural products? What will the DOE substitute for our water supply? How will the economic stability of this area survive?

6/09.00.04

M-280

01 04 00

**Comment Number 2**

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.

09 04 04

**Comment Number 3**

Waste/hazardous material treatment/handling operations are regulated to minimize the potential for releases of hazardous substances to the soil or surface water which could then migrate to the groundwater.

08 03 01

**Comment Number 4**

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.

09 08 04

**Comment Number 5**

The Proposed Alternatives for Pantex would be performed on existing DOE land and would not disturb any prime farmland. Furthermore, because the Proposed Alternatives would operate in full compliance with all Federal, State, and local environmental regulations, the operations would have no adverse impact on grain production. Thus, there would be no impact on the agricultural economy of the Panhandle/Amarillo area.

PANHANDLE AREA NEIGHBORS AND LANDOWNERS,  
PANHANDLE, TX, DORIS AND PHILLIP SMITH  
PAGE 3 OF 7

The DOE had better take care of the problems they presently have at Pantex and not consider any of those future actions listed in the S&DPEIS for location at Pantex. There are other places to handle the processes necessary to carry this country into the 21st century. THE DOE needs to STOP weapons research, development, and testing. The cold war is over - now its time to dismantle and dispose in logical, common sense ways. Stop construction of new facilities - it time to lay to rest this nuclear beast forever!

1/08.03.01  
cont.

Sincerely,



Doris & Phillip Smith  
Co-chairs

Enclosure

M-280

09 00 04

Comment Number 6

Current and future operations at Pantex are not expected to affect the water quality of the Ogallala Aquifer. Waste/hazardous treatment/handling operations are regulated to minimize the releases of hazardous substance to the soil or surface water which could then migrate to the groundwater. However, since this aquifer is being depleted (that is, the current withdrawal is exceeding the current recharge), Pantex operations contribute to the depletion of the Ogallala Aquifer and are analyzed in the PEIS. Also, current and future operations at Pantex are not expected to impact the soil used for agriculture and farming in the Pantex region.

PANHANDLE AREA NEIGHBORS AND LANDOWNERS,  
 PANHANDLE, TX, DORIS AND PHILLIP SMITH  
 PAGE 4 OF 7

THE IMPACT OF AGRICULTURE  
 ON THE  
 HIGH PLAINS TRADE AREA

In the pursuit of new industries, we oftentimes fail to recognize and build on an existing primary and stable industry in the area -- AGRICULTURE. The second leading industry in the state of Texas, agriculture essentially is based on renewable resources and offers enormous economic benefits for technology-based gains in productivity.

"Texas leads the nation in the production of cattle and calves, cotton, wheat and sorghum. Texas ranks among the top ten states in the production of 17 of the nation's top 25 agricultural commodities."

*Governor's Task Force on Agricultural Development (January 1987)*

The dollar value of the agricultural industry to the High Plains Trade Area (HPTA) economy is immense, close to \$4 billion dollars a year. In all likelihood, this figure underestimates the value of agribusiness due to the omission of government offices such as the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, Department of Wildlife and Fisheries, independent feed stores and other small agribusinesses, agribusiness publications whose staffs and printing facilities are located in the HPTA and secondary processing of agricultural products. One of every four dollars of cash receipts from crops and livestock comes from the 26-county HPTA.

**CROP PRODUCTION**

HPTA crops annually bring in revenues exceeding \$591 million as detailed below:

Wheat	\$182 million
Grain Sorghum	136 million
Corn	103 million
Cotton	63 million
Sugar Beets	30 million
Vegetables/Other	77 million

Seven of the ten leading counties in wheat production in Texas are in the HPTA. These seven counties (Dallam, Moore, Sherman, Hansford, Ochiltree, Deaf Smith, and Carson) together grew 25.8% of the state's total wheat production in 1990. Almost half (46%) of all the wheat grown in Texas comes from the HPTA. This area produced 59.35 million bushels of wheat in 1990 of which 34.147 million bushels were irrigated. Texas produced 38.5 million bushels of irrigated wheat; in other words this area of Texas produces 89% of the state's irrigated wheat. HPTA also produces 25.2 million bushels of dryland wheat, or 27% of the state's non-irrigated wheat. 36% of Texas continuous crop wheat comes from this production area.

Farmer, Castro, Hale, Dallam, Moore, Hartley, Sherman, and Deaf Smith counties produce 63% of Texas corn.

PANHANDLE AREA NEIGHBORS AND LANDOWNERS,  
PANHANDLE, TX, DORIS AND PHILLIP SMITH  
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Of the ten leading counties in sorghum production in 1989, five are in this trade area: Hansford, Deaf Smith, Ochiltree, Moore and Carson counties. 72% of the irrigated sorghum and 5% of the non-irrigated sorghum produced in Texas came from the HPTA in 1990; 26% of all sorghum produced in Texas came from HPTA.

In soybean production, four of the ten leading counties are in this trade area: Hale, Floyd, Lamb, and Swisher - which produce 42% of the state's soybeans. Five counties in this trade area produce 61% of the state's production of sunflowers. 28% of the Texas irrigated upland cotton is grown in seven counties in this trade area, 16% of all upland cotton in Texas is grown here.

#### LIVESTOCK PRODUCTION

The total sales for livestock and livestock products were 1.849 million for 1986, which is the latest year on which facts were available.

This trade area has been referred to as the cattle-feeding capital of the world. Approximately 80% of the world's supply of grain-fed cattle are fed in the United States. Texas ranks number one in fed cattle production in the United States, supplying 25% of the nation's fed beef. Of the state's production, 76.1% comes from this HPTA. This area has 22% of the total of all cattle and calves in the State of Texas, accounting for 3 million head.

#### AGRIBUSINESS EMPLOYMENT

The agribusiness sector includes: retail trade; wholesale trade; manufacturing; agricultural services; transportation and public utilities; finance, insurance and real estate. Of the total area work force of 115,491 persons, approximately 31,700 salaried employees (27%) work in jobs related to agribusiness in this area, excluding government employees. The 1986 payroll of agribusiness firms accounted for \$446.21 million, 24% of the total area payroll of \$1,869,966,000.

*Of the 19 manufacturing industry groups in the HPTA, seven are classified as agribusiness: food and kindred products; textile mill products; apparel and other textile products; lumber and wood products; furniture and fixtures; paper and allied products; and leather and leather products. During 1986, these seven agribusiness industries employed 11,407 people or about 51% of the total employment in manufacturing. Payroll is \$220.5 million, 42.4% of the total wages paid in manufacturing in the HPTA.*

*Agribusiness firms within the wholesale trade category employ 4,897 people with an annual payroll of \$88.5 million, which is 44% of total employment and 43% of total payroll in wholesale trade.*

*Of the eight retail trade categories listed in the HPTA, three are agribusiness related. These are building materials and garden supplies, food stores and eating places. These three industries employed 13,843 people with an annual payroll of \$115,955,000 in 1986. These figures represent 19% of the total employment and 9% of the total payroll in HPTA retail trade.*

PANHANDLE AREA NEIGHBORS AND LANDOWNERS,  
 PANHANDLE, TX, DORIS AND PHILLIP SMITH  
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Agricultural services is the third largest category, including veterinary services, animal services, and landscape and horticultural services. It has approximately 1,074 employees and accounts for \$15.15 million in annual payroll. Eight companies were engaged in the warehouse and storing of commodities, with a payroll of \$4.3 million, and about 200 employees. Agricultural credit institutions employ 94 persons, with a payroll of \$1,795,000.

*The above data does not include the payroll of commodity organizations, such as: state headquarters of the wheat growers, corn growers, sugar bean growers, cattle feeders and the American Quarter Horse Association which are all located in the trade area.*

People recognize the High Plains Trade Area as an agricultural region, but few realize the magnitude of the industry in terms of revenues, tax base, and employment for area residents.

#### AGRICULTURAL QUICK FACTS

Texas ranks first in the number of farms and ranches and first in the amount of farm and ranch land. Texas is the third largest agricultural state. It accounts for the nation's second highest farm income at some \$12 billion annually. Texas ranks first in the value of farm real estate, first in cash receipts for livestock and products, second in cash receipts for all commodities and fifth in cash receipts for crops.

**"TEXAS PROCESSES ONLY 6% OF THE NATION'S PROCESSED COMMODITIES, YET TEXAS RANKS SECOND IN THE VALUE OF RAW COMMODITIES PRODUCED. FOR EVERY PERCENTAGE POINT WE ADD TO OUR PROCESSING TOTAL, WE WOULD ADD 90,000 JOBS AND 9 BILLION DOLLARS TO THE TEXAS ECONOMY. WE MUST PROCESS OUR OWN PRODUCTION"**  
*Governor's Task Force on Agricultural Development, Lubbock Hearing, June 27, 1988.*

The economic clout which we have we need to use, **value-added processing would bring billions of dollars into the HPTA.** Historically, growth and development in Texas have been closely associated with a progressive and productive agricultural industry. The production of agricultural products expands economic activity in Texas far beyond the farm gate. Suppliers, processors, distributors - all agribusiness - benefit from agricultural production; **ONE DOLLAR OF FARM SALES STIMULATES OVER \$3.40 IN ACTIVITY WITHIN THE TEXAS ECONOMY.**

That's what IS happening. Here is what COULD happen. If area economic developers pushed to develop some of the facets of agriculture as they have pushed to develop other industries, AND if they brought to optimum use of value added in the acres and various items that are produced in the Texas Panhandle, the economic impact of agriculture of the entire area would be **in excess of four Super Colliders.**

Put that in your economic-multiplier and see what you come up with!

PANHANDLE AREA NEIGHBORS AND LANDOWNERS,  
PANHANDLE, TX, DORIS AND PHILLIP SMITH  
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**RESOURCES:**

The Impact of AGRIBUSINESS IN THE TEXAS HIGH PLAINS TRADE AREA, October 1989, Richard Edwards and Steve Amosson, Texas Agricultural Extension Economists; Jim Smith, Potter County Extension Agent; Texas A & M University System, published in cooperation with the City of Amarillo, Amarillo Economic Development Corporation and Southwestern Public Service.

1989 and 1990 Texas Agricultural Statistics, Texas Agricultural Statistics Service; Texas Department of Agriculture; U. S. Department of Agriculture.

Governor's Task Force on Agricultural Development, Lubbock Hearing Testimony, June 27, 1988.

Recommendations of the Business Development and Jobs Creation Task Force, submitted to Governor William P. Clements, Jr., January 1987.

June 1991, Doris Smith, HCR 2, Box 20, Panhandle, TX 79068, (806)335-1050.

M-280

PANHANDLE GROUND WATER CONSERVATION DISTRICT NO. 3,  
WHITE DEER, TX, C. E. WILLIAMS  
PAGE 1 OF 2

*Panhandle Ground Water  
Conservation District No. 3*

John Spurgeon, President  
Frank Blinn, Vice-President  
Charles Brown, Secretary  
Philip Smith, Director  
Jerry Green, Director  
Ann Thompson, Director  
Robert A. Clark, Director  
C. E. Williams, Manager

P.O. Box 637 • White Deer, Texas 79087 • Ph. 806/883-2501 • Fax 883-2182

May 7, 1996

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

RE: Comments on Storage and Disposition of Weapons-Usable  
Fissile Materials Draft PEIS

The District's purpose is provide for the conservation, preservation, protection, recharging and the prevention of waste of the underground water reservoir through Subtitle E. Groundwater Management, Chapter 36, Texas Water Code.

In fulfilling our charge, I would agree with the two statements on page 1-46 of the summary.

**Long - Term Storage Alternatives**

"Among the DOE sites under consideration, Pantex has 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, air quality, cultural resources, socioeconomics, public health and safety, wastemanagement, intersite transportation, and environmental justice could be susceptible to adverse cumulative impacts."

PANHANDLE GROUND WATER CONSERVATION DISTRICT NO. 3,  
WHITE DEER, TX, C. E. WILLIAMS  
PAGE 2 OF 2

Page 2  
May 7, 1996

**Disposition Alternatives**

"Implementation of the various proposed disposition alternatives to one or more of the DOE sites has the potential for incremental cumulative impacts in addition to the cumulative impacts identified above for the long-term storage alternatives. Among the DOE Sites used for analysis purposes, Pantex would have the greatest potential to experience adverse cumulative impacts."

After review of the document, it is apparent to me that there are better locations for the referenced missions than at Pantex. I am not willing to accept the risks that they might have on the Ogallala Aquifer.

1/08.03.01

Sincerely,



C. E. Williams  
General Manager

F-032

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.

PANHANDLE PLASTIC SURGERY, AMARILLO, TX,  
 JOHN C. KELLEHER, JR.  
 PAGE 1 OF 2

PANHANDLE PLASTIC SURGERY, P.A.  
 JOHN C. KELLEHER, JR., M.D., F.A.C.S.

Dependent American Board of Surgery  
 Dependent American Board of Plastic Surgery  
 1810 Coulter Drive Amarillo, Texas 79106  
 (806) 364-8731 FAX (806) 358-8837 1-800-488-5804

April 3, 1996

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

Re: Stockpile Stewardship and Management and Storage and  
 Disposition of Weapons-Usable Fissile Materials.

Dear Sirs:

Thank you for the opportunity to comment on the U.S. Department of Energy's (DOE) Programmatic Environmental Impact Statements (PEISs) on Stockpile Stewardship and Management and Storage and Disposition of Weapons-Usable Fissile Materials. Please also consider this my comment on the Pantex Site-Wide Draft Environmental Impact Statement, since most of the issues addressed in these documents are identical.

Of utmost concern has always been safety in the Pantex Plant and a certainty that the operations will be conducted in an environmentally sound manner. As a physician, I want to ensure that Pantex expansion is implemented in a way that does not impair the health or safety of area residents or have an adverse affect on the environment.

While the DOE has selected Pantex as the preferred alternate for assembly/disassembly, they failed to recognize Pantex as the preferred candidate site for new and/or consolidated stockpile management facilities. In doing so, the DOE has overlooked the best site for maintaining the integrity of the new U.S. nuclear stockpile and attaining maximum efficiencies and cost savings.

I feel that Pantex is the best site for new construction/stewardship activities. Any comparisons the DOE looks at should be closely examined, especially being sure that comparisons are accurate including capital required, transportation, training, remediation, and other costs.

Pantex is obviously the best site to continue high explosives fabrication, having performed this for more than 40 years with an excellent safety record.

Plastic & Reconstructive Surgery

•

Surgery of the Hand

•

Aesthetic Surgery

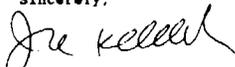
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U.S. Department of Energy  
April 3, 1996  
Page Two

I would urge the DOE to designate Pantex as the preferred alternate site for all existing and new stockpile management and stewardship functions as well as consolidation of all plutonium storage and disposition in any related functions. Thank you very much for the opportunity to comment on these documents.

1/08.03.01

Sincerely,



John C. Kelleher, Jr., M.D.

su

M-014

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentator'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.

**PARUCHURI, KAVENDRA**  
**PAGE 1 OF 3**

Department of Energy  
 POBox 3417  
 Alexandria, VA 22302

Dear DOE,

Your claim that you want citizen involvement and the best possible alternative for dealing with nuclear weapons and waste sounds terrific, yet I cannot help to find numerous contradictions in your statements in the SS&M and PEIS.

You fail to note:

1) We are trying to get rid of our plutonium and HEU, not make more of it in new and old reactors. Building more reactors can, in turn, spur the development of more nuclear weapons by the use of reactor byproducts. This plan for reusing plutonium in reactors breeds the proliferation of nuclear weapons not only in the US but also in other countries. Countries can start with the guise of using "commercial" reactors and secretly build nuclear weapons (see North Korea). Also, by reusing the plutonium, we will get more hazardous waste than we originally had.

2) DOE's visions need to be long-term, not short-term. Sure, nuclear reactors can give us energy in the short term, but is it worth risking the health and well-being of our children for 20,000 years to come? No. No. No. Even though death may not be immediate, radiation leads to death by

1/01.06.00

2/01.00.00

M-208

**01 06 00**                      **Comment Number 1**

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

Spent fuel produced under the weapons Pu disposition mission would be essentially the same as fuel normally produced in commercial reactors (both have Pu in the spent fuel form) which would not be more hazardous. The spent fuel would meet the same criteria as the commercial reactor spent fuel that would eventually be sent to an NWPAs geologic repository.

**01 00 00**                      **Comment Number 2**

It is only prudent and responsible to include both short and long terms. If Pu disposition is not implemented in the short term, the "clear and present danger" of nuclear proliferation could cause significant long-term irreversible damage to mankind.

changing DNA. No level of radiation is proven to be safe! Taxpayers end up footing many health bills that result from the radioactive poisoning that the DOE has allowed.

3)DOE needs to stop lying to the public about information that it has presently and about government deception in the past. DOE continues to lie to the people(see the reactor and people at Hanford, Washington who were poisoned by a radioactive cloud that the government secretly released). Unless the government opens its records to the public, we will never get at the truth.

3/01.00.00

4)DOE needs to consider more alternatives. By using the same contractors over and over, DOE fails to see new ideas and methods of disposal. Independent scientists, academics, analysts, and experts(working on their own; not for corporate America or the government) need to collaborate to research and find the safest method of disposal. Alternatives like vitrification must be considered.

4/01.00.00

5)Worker and community safety need to be the number one priority. Also, DOE needs to be consistent with the global urgency of eliminating all nuclear weapons. Nuclear reactors need to be shut down because as long as there are nuclear reactors, a potential for bomb making is present.

5/01.00.00

6)DOE really does not care about public opinion despite its claims. This debate is the most pressing issue facing Americans today, yet why did the government nationally encourage participation. I see Army

6/08.02.00

M-208

**01 00 00                      Comment Number 3**

The Department of Energy has declassified a great deal of information regarding weapons-usable fissile materials. Inventories and locations of these materials were documented in a report released by the Secretary in her Openness Initiative in 1993 and again in 1996.

**01 00 00                      Comment Number 4**

The Department of Energy considered a total of 37 alternatives for Pu disposition, and selected nine "reasonable" alternatives for further analyses in this PEIS. The screening process to select these alternatives was documented and reviewed by the Interagency Working Group (membership includes various Federal agencies and the White House Office of Science and Technology). DOE efforts also considered and built on the extensive previous work of the NAS.

**01 00 00                      Comment Number 5**

Comment noted.

**08 02 00                      Comment Number 6**

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.

commercials all the time, but I did not see any commercials about SS&M and PEIS. Why was the local Nashville football debate set above the nuclear debate?

In addition, the PEIS(all 3,000 pages) is too confusing and complicatedly written for most citizens to understand. The incessant use of jargon terms, although useful in a DOE spelling contest, only serve to perplex the reader.

7/08.00.00

The terrible truth is: no citizen has time to read 3,000 pages of jargon. I suggest that the government create a nationally televised forum in which the DOE goes up for questioning on this issue. I'm not talking about a one sided DOE lecture. I'm talking about intensive scrutiny of the DOE by independent scientists, environmental activists, community leaders, academics, and other people who are against proliferation. If the DOE is so certain that it has all the options, let the members of DOE take on the unheard voices in front of the media and the American people.

8/08.02.00

If read, I'm sure that this letter will be dismissed as a letter from "just another one of those hippie freaks." Rest assured, I am not a hippie and certainly am not a freak.

Outraged United States CITIZEN,  
Kavendra Paruchuri

M-208

**08 00 00                      Comment Number 7**

It is recognized that storage and disposition of surplus weapons-usable fissile materials is a complex situation and necessarily involves the use of many technical terms. DOE has made every effort to keep the PEIS a readable document. The size of the document not only reflects the complexity of the proposed proceedings but also provides the public all of the information needed to fully participate in the decisionmaking process.

**08 02 00                      Comment Number 8**

The *National Environmental Policy Act* requires the government to make documents such as the PEIS available to the public for comment so that the scrutiny of all members of the public can be applied to the Proposed Action. DOE also holds a number of interactive public meetings at which senior DOE officials present information, answer questions, and accept public comments. DOE strives to hold meetings and open avenues for comment in such a manner that there are no unheard voices.

PEACE ACTION TEXAS, DALLAS, TX,  
JAN SANDERS  
PAGE 1 OF 4



Jay Rose  
Office of Reconfiguration, U.S. Dept. of Energy  
1000 Independence Ave. S.W.  
Washington, D.C. 20585

April 24, 1996

Dear Mr. Rose,

Please find here comments on the PEIS's that have recently been issued related to the reconfiguration of the Nuclear Weapons Complex. It is with great seriousness and concern that I am writing

The comments are limited and incomplete due to the complexity of the subject, the voluminous nature of your "dictionary-size" reports, and the shortness of the time to comment.

I represent, in principle, the positions taken by the statewide group of which I am chair, Peace Action Texas, and of the national organization, with which we are affiliated with the same name. Together we are the largest grass roots peace organization in the country, we are an NGO to the United Nations and cooperate and support similar peace organizations in others countries.

As a peace activist who has been for years an advocate of nuclear disarmament, a Comprehensive Test Ban and a world treaty for Non Proliferation, I am celebrating the fact that we are finally on the path. Indeed, we are now living through a time of historic opportunity. Our actions, our policies will effect generations throughout the world for thousands of years to come. I hope and pray that we have the will and the moral courage to grasp this opportunity.

The United States can and must lead the world on a path to peace---peace with one another and peace with our fragile planet. Our decisions and actions related to our Nuclear Weapons Complex will be a major part of that journey for mankind.

Sincerely,

Jan Sanders  
Chair, Peace Action Texas

*Peace Action Texas is a grassroots based organization whose mission & purpose is to educate the public in order to recruit members and organize them into a nonviolent citizens' movement with the sustained political power to reverse the world arms race, abolish nuclear weapons, teach and practice non-violent resolution of conflict and construct a world of peace & justice.*

*Jan Sanders, Chair 7326 Malabar Lane Dallas, TX 75230 (214)369-9388* ♻️

M-216

PEACE ACTION TEXAS, DALLAS, TX,  
 JAN SANDERS  
 PAGE 2 OF 4

Comments  
 by Jan Sanders  
 re the Draft Programmatic Environmental Impact Statement for the Stockpile Stewardship and  
 Management of Nuclear Weapons and  
 the Storage and Disposition of Nuclear Materials

Process for public comment: I called the DOE one week prior to the Amarillo meetings to get the schedule and format so that I could meet the deadline for air fares to travel from Dallas. The schedule, as told to me, changed in that week. Indeed local members said that had been a problem throughout the lead time for this meeting.

I am concerned about all three of the PEIS's, but I needed to be four places at once Monday evening, which was impossible. Because I was told that everything would be over by noon on Tuesday I was not able avail myself of the additional sessions on Tuesday afternoon.

I would encourage the Dept. in planning future meetings, hearings or workshops to automatically notify those who have participated in the past and to notify national offices of groups that would be interested in providing public input on the topics at stake.

The message? Public input, questions, and comments are not really being sought in this round of reviews.

1/08.02.00

Questions and Requests:

1) I would like to have sent to me the documents, memorandum or legislation from the President and the Congress that directs the DOE "to maintain the safety and reliability of the enduring nuclear weapons stockpile." p S-1 What is the number of warheads that the Dept. is being asked to maintain in the ready arsenal? How was this number determined? Was there public debate on this?

I was surprised to be told in Amarillo that the number (NWSP) was classified as a matter of national security. Is the number so small that the touted "nuclear deterrence" would be questioned? In light of the collapse of the Soviet Union, the signing of the NPT treaty extension and the discussions of a CTB, and the fact that we do indeed live in free and open society—I plan to request a Freedom of Information request for this information. It is impossible to respond to the issues of safety and environmental impact when the numbers range in the thousands.

"Stockpile stewardship and management capabilities are independent of foreseeable future stockpile sizes." S-3 It is hypocritical to say that we will lead the world toward nuclear disarmament, our NPT position, but we want to keep on the ready the capability of putting a bomb together tomorrow.

2) In light of the negotiations for a CTB and the Testing Moratorium that has been in effect under both a Republican and Democratic President, why is the Nevada Test Site being maintained and funded?

3) Why must an alternative to underground nuclear testing be developed to verify the "safety and reliability of weapons"? S-1 Our arsenal has been tested, repaired, & maintained for years. We have accumulated a huge stockpile and an incredible amount of knowledge. Didn't we learn how to do it? How can the additional expense be defended?

4) In light of the knowledge (an lack of it) that we have acquired in the 50 years of the atomic era, why would we even consider the continuation or the new construction that would result in the

M-216

08 02 00

Comment Number 1

The Department of Energy, including the Office of Fissile Materials Disposition, makes every effort to automatically notify those who have participated in the past of public meetings about the availability of documents.

creation of more low and high level waste? We are struggling with the waste we already have! To construct new facilities that would provide the plutonium processing that formerly was at Rocky Flats in this era of nuclear disarmament seems to make a mockery of our treaties, it insults the intelligence of the American taxpayer and is an incredible threat to the environment

5) In the alternative to consolidate the "capability", translate that the ability to build new nuclear bombs, that moves the Rocky Flats plutonium processing to Pantex, I would like to ask if any or all of the other DOE facilities are located over an aquifer?

2/09.04.08

6) Clarify for me the level of importance placed on the impact of jobs lost or jobs gained in any particular area in making your recommendations.

3/08.03.00

I hope to receive answers to the above questions. In light of these questions, I would like to take some clear positions on the issues.

Positions and urgings:

1) Develop a program that would continue the orderly disassembly of our nuclear arsenal. Use this disassembly action to lead and provide an incentive to the other nuclear powers to do the same. Concentrate our research and considerable technical expertise on the safe disposal of the lethal material.

Use the nuclear labs and our trained and dedicated workers throughout the complex in a collaborative way to assist other nuclear powers in safely disposing of the nuclear arsenals over a period of time, with open inspections and exchange of expertise.

2) Provide American citizens with information that will enable them to participate in the development of a sound and safe nuclear public policy. The removal of the "classified for national security" blanket will set the stage for transparency in dealing with our international global neighbors.

4/08.02.00

3) If other DOE sites are not over aquifers of the size and importance as the Ogallala, I would urge the storage of plutonium or the vitrified or ceramic treatments of the waste at any of these other sites. There is no good location, but we do know that if radio-active material from plutonium enters the water supply it will be there for what number of years?--25,000? or just a few hundred?

5/08.03.01

4) I strongly oppose the use of surplus plutonium by the nuclear energy companies here or abroad. It continues the waste stream, threatens the environment at every movement and handling of the material, and it leaves plutonium in the spent fuel that could be diverted to nuclear weapons. I know it is hot, difficult, etc., but the plutonium is still there and plutonium is a crucial component of the bomb.

6/08.03.01

5) Shut down the Nevada Test Site. Convert it to a solar energy testing site or is the area too hot?

6) Shut down one of the labs. Does the myth of the "competition" still rein? When I learned that Nagasaki bomb was from the 2nd lab it made me grieve with shame that we might have used Nagasaki as a test. Convert the remaining lab into an all out effort to do the research on waste disposal or neutralization of radio-active materials.

M-216

09 04 08

Comment Number 2

Potential impacts to groundwater quality are considered to be minimal at all facilities due to hazardous material/waste handling and treatment/disposal Federal and State requirements. Due to the current and expected future depletion of the Ogallala Aquifer, the potential to affect groundwater availability is a concern at Pantex.

08 03 00

Comment Number 3

Socioeconomic factors, such as the number of jobs lost or gained under each alternative, have been analyzed in the PEIS. That information will be presented to the decisionmakers in making decisions on the storage and disposition of weapons-usable fissile materials. Socioeconomic environmental factors include the number of direct jobs (construction and operation), indirect jobs, local area infrastructure (police, hospitals, transportation, and education), and environmental justice.

08 02 00

Comment Number 4

The PEIS and its source documents referenced in Chapter 5 (*References*) of the PEIS are unclassified to the extent practicable without compromising national security. The classified information needs to be protected in order to reduce the probability of the nuclear materials being taken by terrorists, foreign or domestic. DOE is committed to an Openness Policy. A significant portion of the information used to prepare this PEIS was declassified in the last 2 years.

08 03 01

Comment Number 5

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.

PEACE ACTION TEXAS, DALLAS, TX,  
 JAN SANDERS  
 PAGE 4 OF 4

7) Stop the connection between technological research and development and war and killing. If our scientists would benefit from the development of a super computer, fine. Place it in one of our great universities or hospitals or at the Peace Institute not for new bomb making.

8) Peace Action has as one of its four program areas its support for economic conversion from a war-defense contracted economy to a peace economy. It includes job conversion and/or re training of workers loyal to and dependent as their localities have also been on the large government defense contracts. We would not turn our backs on their needs, nor would we ever support the continuation of bomb making as a jobs program. The DOE should not allow the boosterism of the Chamber of Commerce of one area (Panhandle 2000) dictate these decisions of national and international import. And finally,

9) Peace Action has taken a position in support of Abolition 2000, a worldwide movement to abolish nuclear weapons by the year 2000. Therefore, I urge that you consider the Start II treaty just that, a start toward the very attainable goal of Abolition 2000. To allow the Start II treaty to limit in anyway our leadership in the Non Proliferation work (p 3-7) would be wrong.

7/01.06.00

Some further observations, questions and comments:

With a stockpile numbering in the thousands, which was built over a period of years, I would make the logical assumption that it will age over a period of time as well. What if we cannibalized parts from one to another to make repairs and to maintain as many as possible, how long would it take for us to drop to zero? If, during this wear down period, we took a leadership role in the Non-Proliferation movement, we could produce a much safer and secure world, than we would have if we were bristling with new weapons "capability".

In recent years the military genius of this country has produced modern, non nuclear weapons that approach the destructive power of a nuclear warhead. As a peace advocate, I'm not particularly proud of that, but I would point out that the environmental risks from the raw materials, the transport, the manufacturing, the assembling and the deployment of those weapons are not as great or as long lasting as those associated with nuclear bombs. How can we put our own people and our own environment at this level of health and safety risk when we have in hand safer alternatives? Have we, in the build-up and now in the prospects of the "stewardship" of an arsenal capable of blowing up the world, deterred the bomb from being dropped on us by others, but instead have we not dropped it on our selves?

The power, the near worship of the power of the nuclear bomb is evil. It undermines the moral character of this country that we are willing to continue to possess weapons of mass destruction of this magnitude and by the possession threaten the peoples of the world with their use.

During the height of the arms race during the Cold War the Bishops of the Catholic church challenged the bomb making and then the Bishops of the Methodist church in their "In Defense of Creation" pastoral letter challenged even the possession.

I intend to copy these comments to the President, the Secretaries of Defense and Energy and to my elected representatives to Congress -

Thank you - Jan Sanders

M-216

08 03 01

Comment Number 6

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.

01 06 00

Comment Number 7

Comment noted.

Storage and Disposition of Weapons Fissile Materials  
Comments on Draft PEIS  
April 2, 1996

Bob Peelle  
130 Oklahoma Avenue  
Oak Ridge, TN 37830

Summary:

1. The "no disposition" option should be chosen for surplus weapons plutonium in the short run. Since treaty obligations probably require effort soon to reduce the amount of weapons plutonium stored, a plan must be developed to reduce the total amount of plutonium through its use as fuel in suitable nuclear reactors. Note that mixed oxide fuel use in current light water reactors would not reduce the total plutonium figure very much.

(Total Pu = weapons Pu + reactor fissile Pu.)

2. The number of storage sites for weapons plutonium should be reduced (not necessarily to one). This thought is based on efficiency and the need to abandon some storage sites.

3. Plutonium and HEU storage should not be co-located. If the same site must be employed, strict separation between the areas used for each material should be assured. This suggestion is based on the assumption that fissile materials will be processed to some extent at each storage site. The health physics needs at the facilities can efficiently be met if workers at the HEU storage site are sure that plutonium cannot be present.

Details leading to Recommendation 1:

The author recognizes that this recommendation rests on different bases from those generally adopted. These are:

a. DOE and relevant agencies in other responsible nations should show concern for the long-term future of our society. Here, I suggest a time horizon of 1000 years for our nation and at least 1000 generations for human civilization.

b. Energy resource depletion will eventually be a problem, so we should avoid compromising the resources that will be required. If breeder reactors come to be needed, plutonium reserves will be of great value for startup.

1/01.00.00

2/02.00.08

3/08.03.01

4/02.04.08

1/01.00.00  
cont.

OR-001

01 00 00

Comment Number 1

The Department of Energy's Proposed Action is to conduct disposition for surplus Pu and provide safe and secure long-term storage for non-surplus weapons-usable fissile materials to support national defense. The intent of the Proposed Action for Pu disposition is not to pursue total Pu destruction, but to convert the Pu into a proliferation-resistant form that meets the Spent Fuel Standard as recommended by the NAS. DOE, in considering the Spent Fuel Standard, evaluated the adequacy of the Standard versus the greater degree of destruction achievable with other options such as the Advanced Deep Burn Reactor Option and the Accelerator Option. It was judged that the Spent Fuel Standard is adequate since it would convert the weapons Pu to a form that would make it as difficult to retrieve and reuse in weapons as the Pu contained in the much larger existing volume of spent fuel from commercial nuclear reactors.

02 00 08

Comment Number 2

Comment noted.

08 03 01

Comment Number 3

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

02 04 08

Comment Number 4

Comment noted.

PEELLE, BOB, OAK RIDGE, TN  
PAGE 2 OF 3

c. After a few hundred years, spent reactor fuel (or Cs-137 spiked plutonium) can be safely processed by national groups or by terrorist organizations.

d. For either good or evil purposes, spent fuel repositories will be mined once fission product radioactivity has decayed to the level that the work can be done safely. If weapons grade plutonium (or HEU) is present, use in weapons will be considered.

e. Terrorist nations or organizations are assumed to be able to do anything that is possible. It is stated that reactor grade plutonium can be used to make nuclear explosives. (National Academy of Sciences, "Management and Disposition of Excess Weapons Plutonium" (1994) p30. I don't have the underlying reference)

A quick response to my approach might be "...future generations will have to care for themselves." They must, but we should give them a chance for success whenever we can. Disposing of weapons plutonium quickly seems unimportant if much larger amounts of reactor plutonium are present and becoming available. The best course must be to pause and think hard before taking hasty expensive action.

**Needs for careful analysis in the final FEIS:**

Topics are listed below that need to be discussed in the final FEIS if the present recommendations are to be considered. Perhaps the author failed to locate adequate sections that are already included in the draft FEIS.

a. Show the estimated switchover and operating costs for plutonium storage as a function of how many storage sites are maintained, for a fixed total amount of plutonium.

b. Indicate the extent to which chemical and/or physical processing are expected to take place at the major plutonium storage sites. Surface treatments and machining should be included. The interest is in supporting estimates of likely environmental releases.

c. Estimate the extra capital and operating costs expected to be required if storage facilities for HEU and plutonium are co-located in such a fashion that health physics operations must distinguish during field monitoring whether alpha particles have been emitted from uranium or plutonium.

d. Indicate what can be foreseen about the security of deep underground storage against a determined national effort to utilize guided drilling from a surface location external to the secure area at a storage location. (Note remarks in the

1/01.00.00  
cont.

5/07.02.00

6/02.00.08

5/07.02.00  
cont.

7/13.00.00

OR-001

07 02 00                      **Comment Number 5**

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

02 00 08                      **Comment Number 6**

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.

13 00 00                      **Comment Number 7**

The security aspects of the storage and disposition alternatives will be developed further in detailed designs for the selected alternative(s).

August 1995 American Nuclear Society panel report "Protection and Management of Plutonium", page 26.)

7/13.00.00  
cont.

e. Is spent fuel easy to process safely to extract plutonium once most fission products have decayed, say after 300 years?

8/15.00.00

f. The acceptance of the finding that availability of reactor grade plutonium (high percent Pu-240) is as sensitive for proliferation concerns as pure plutonium-239 has grave policy implications. If the statement is fully true, the problem with surplus weapons-grade plutonium pales compared to the total plutonium nonproliferation problem.

Is it likely that the extra difficulties and dangers of building nuclear explosives with reactor-grade plutonium would discourage national or renegade terrorists from using this route to terror? Should DOE reverse its finding? If so, the idea of using mixed oxide fuel in light water reactors would be much more sensible than it is under the current "all plutonium is equivalent" dictum.

1/01.00.00  
cont.

g. How rigid are the treaty obligations relative to how soon disposition of excess weapons plutonium must be accomplished?

h. Have reactors been developed for which discharged fuel does not contain as much plutonium as spent fuel from light water reactors now does? What about CANDU or equivalent reactors? My memory is that heavy water reactors can utilize most of the plutonium they produce.

The above comments represent only myself. I am a nuclear physicist retired from ORNL and a fellow of the American Nuclear Society. I was long a Roane County Commissioner.

OR-001

15 00 00

Comment Number 8

This would require appropriately designed facilities including extensive chemical processes. 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.

**PETERS, DON, POCA TELLO, ID**  
**PAGE 1 OF 1**

Comment ID: P0020  
 Date Received: April 18, 1996  
 Name: Don Peters  
 Address: Pocatello, ID

Transcription:

I'm for using the expertise that is available at the INEL to classify nuclear waste, however, the storage problem has got to be solved. If the State of New Mexico continues to stall on the utilization of the storage facility that has been built down there, it should be closed, and if they stall saying they need roads around their cities, to me that's just another stall. The overhead that is being spent at taxpayer's expense down there for, in my estimation, no good purpose should be terminated, and if Nevada is going to pull the same thing, then we should be taking a hard look at that. Idaho has got the expertise and an area that can process this material without undue harm if it's left above ground and not in storage. If the storage problem should ever contaminate the aquifer out there, the down stream area of Idaho could be seriously damaged. That's my comments.

1/08.03.01

2/12.00.00

3/09.04.03

P-020

**08 03 01** **Comment Number 1**

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.

**12 00 00** **Comment Number 2**

Comment noted.

**09 04 03** **Comment Number 3**

Hazardous material handling/storage operations are regulated to minimize the potential for releases of hazardous substances to the soil or surface waters where they could migrate to the groundwater.

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

Name (optional): Daniel E. Peterson  
Address (optional): 9127 75th Ave N.E.  
Seattle, Wa. 98115

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, 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 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.

*After listening to public hearings presentations vitrification seems the best option. The mix should include security at mix if materials that prevent reuse for weapons.*

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.

*Current problems with 2.5 mile deep or 6221 ft wells lead me to oppose direct disposal but allow immobilization this might be tried on a limited basis before mass disposal.*

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 is less desirable and calls for security on an increased scale.*

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

M-111

08 03 01 Comment Number 1

The Department of Energy acknowledges the commentator's support for the Immobilization 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 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 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.

PETERSON, DANIEL E., SEATTLE, WA  
PAGE 2 OF 2

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.

These topics are very complex but there is no doubt the cost factor is high in all of them. As a US foreigner living on modest retirement income I want to go on record as wishing to pay increased taxes that would be earmarked for storage and disposition of weapons-usable fissile material. This includes aiding Russia and other nations improve their security and methodology in these areas.

All of my for paying taxes I have supported defense spending while calling for limits on such spending when it reduces spending for social issues. I feel the cold war "policy" should not be furthered any by now saving money. I believe to spend on programs of security storage and disposition for those of us in the state of Washington the "border legacy" of mismanagement and "down sized" problems makes the a life and death issue.

Daniel Peterson

4/01.03.00

M-111

01 03 00 Comment Number 4

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 or bilaterally through negotiations, or unilaterally as an example to Russia and other nations.

Storage and Disposition of Weapons-Usable Fissile Materials Final PEIS

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

Name (optional): Merry Ann Peterson  
 Address (optional): 20312 Marine View Dr SW  
Seattle WA 98148-4211

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.

*Maybe we don't need this if it will be buried very deep*

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.

*This sounds good*

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.

*I understand this would not get rid of all the plutonium, is that right?*

2/06.00.08

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*

3/08.03.01

M-116

08 03 01 Comment Number 1

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

06 00 08 Comment Number 2

The commentator is correct. Whereas there is a net reduction in the Pu inventory by an appreciable fraction, typically 25 to 35 percent, and perhaps as high as 50 percent, the total inventory is not destroyed. Note that the residual Pu is encapsulated in a highly radioactive spent fuel assembly and is no longer considered to be weapons-usable.

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.

PETERSON, MERRY ANN, SEATTLE, WA  
PAGE 2 OF 2

15 00 00

Comment Number 4

Comment noted.

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.

I am wondering if there are still problems as there were  
when the sheep down wind died in the 1960s; radiation sickness  
as in Japan since 1945; radon; sleeping as in the silohead case.  
I understood the Chernobyl incident was a worker induced problem  
since workers over rode all safety devices to test a theory.  
Thank you for addressing these issues.

4/15,00.00

M-116

COLORADO CHAPTER

**PHYSICIANS FOR SOCIAL RESPONSIBILITY**

The U.S. Affiliate of International Physicians for the Prevention of Nuclear War  
Recipient of the 1985 NOBEL PEACE PRIZE  
1738 Wynkoop, Suite 1, Denver, Colorado 80202 • (303) 298 8001

May 7, 1996

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

**Comments on the Storage & Disposition Draft PEIS**

Please accept these comments on behalf of the Colorado Chapter of Physicians for Social Responsibility on the Draft Programmatic Environmental Impact Statement for the Storage and Disposition of Weapons-Usable Fissile Materials:

Introduction

The United States government bears the awesome responsibility of protecting its vast quantity of plutonium stored in Colorado and other states from ever ending up in a nuclear weapon. Decisions the United States government makes on the future disposition and storage of plutonium must also protect the public, workers and the environment from hazards associated with the plutonium.

(Although these comments specifically refer to plutonium, they also pertain to highly enriched uranium, as applicable.)

Specific Comments

1. Disposition option should be limited to immobilization: The only option the Department of Energy (DOE) should be considering is immobilizing the plutonium which would 1) stabilize it, 2) help prevent theft or diversion and 3) would make a very important statement to the rest of the world that plutonium has no value or usefulness thereby discouraging other countries for using it too, whether for civilian or military purposes. The immobilization process most promising is vitrification. A pilot vitrification facility should be studied for Rocky Flats without delay. Because plutonium at Rocky Flats is likely to be stored on site for many years, the DOE should begin making plans for storing it in a manner that addresses nuclear non-proliferation and safety. Absent from the draft PEIS are any such plans for the possible scenario of longterm storage of plutonium at Rocky Flats. This should be included in the final document in the context of exploring vitrification at Rocky Flats.

2. Reactor fuel and deep borehole disposal should not be under consideration: The use of plutonium as a fuel for nuclear reactors would be unwise from two standpoints. First, such an option is not

1/08.03.01

1/08.03.01  
cont.

2/01.05.00

2/01.05.00  
cont.

3/08.03.01

M-169

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.

01 05 00

**Comment Number 2**

Rocky Flats Environmental Test Site is not included in the PEIS as a candidate site for any of the alternatives evaluated. DOE has made a decision to move all weapons-usable materials out of RFETS and clean up the site. Any decision to vitrify Pu will involve RFETS only to the extent necessary to provide for stabilization of materials prior to their transfer to another DOE site.

08 03 01

**Comment Number 3**

The Department of Energy acknowledges the commentor's opposition to the disposition alternatives. 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 into a nonproliferation form as spent reactor fuel.

The Reactor Alternative using MOX fuel is a reasonable alternative that converts the surplus Pu into spent fuel that meets the Spent Fuel Standard. Dependent upon fuel management, it is likely that no additional spent fuel would be generated beyond that of a conventional uranium fuel cycle.

The Department of Energy is committed to waste minimization and waste minimization considerations will be included in the implementation of the selected 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.

PHYSICIANS FOR SOCIAL RESPONSIBILITY, DENVER, CO,  
 SAMUEL H. COLE  
 PAGE 2 OF 2

congruent with nuclear non-proliferation since it treats plutonium as a useful product and would legitimize similar actions by other countries. This would make it difficult for the United States to determine the true motives of plutonium possession by other nations as military use of plutonium could be disguised as civilian use. Second, the MOX fuel option creates an enormous amount of radioactive waste - in a sense diluting the radioactivity of the fuel. Therefore, the DOE is encouraged to adopt a Nuclear Waste Standard in considering its disposition options in which the option chosen must produce the least amount of waste.

Information is scant on the science behind the deep borehole option. Nevertheless, there are health, safety and environmental concerns that should be thoroughly addressed should this option be explored more closely.

3. Disposition should be congruent with future activities at Rocky Flats: The PEIS must better address how its disposition and storage decisions are congruent with the activities at Rocky Flats. The path forward in the document must address how the work at Rocky Flats fits into that plan. Processing should make the plutonium proliferation resistant.

4. The processing and transport must be kept to a minimum: To protect the health and safety of workers and the public, processing and transportation of plutonium in the PEIS must be kept to a minimum.

5. Plutonium must be subject to outside regulation: DOE's Advisory Committee on External Regulation has recommended the independent oversight of DOE's plutonium activities. The PEIS should likewise do the same.

6. Plutonium must be labeled a waste by the DOE: To seriously discourage nuclear non-proliferation in the world, the DOE should determine, for the purposes of this PEIS, that plutonium is a waste, has no value and should be immobilized, perhaps in glass, in extremely secure conditions.

Thank you for your consideration of these comments.

Signed,

  
 Samuel H. Cole  
 Executive Director

3/08.03.01  
 cont.

4/01.00.00

5/01.00.00

6/01.06.00

7/01.04.00

01 00 00                      Comment Number 4

The schedule analysis is presented in a separate document along with cost and technical analyses to support the DOE's ROD, which would lay out a path forward for implementing the Proposed Action.

01 00 00                      Comment Number 5

Comment noted.

01 06 00                      Comment Number 6

Comment noted. DOE is still evaluating external regulatory options for its activities.

01 04 00                      Comment Number 7

The determination of whether or not Pu should be considered a waste is beyond the scope of the PEIS. Furthermore, whether or not Pu is a waste will not change the range of disposition alternatives addressed in the PEIS. NEPA requires that the environmental impacts for all reasonable alternatives be considered. While immobilization is clearly a reasonable alternative, so are the Reactor and Borehole Alternatives. The nonproliferation risks of each alternative will be carefully considered and factored into the ROD for disposition. Cost, schedule, and technical analyses have been conducted by DOE and will also be factored into the ROD.

*For the millionth time!  
No nuclear waste dump  
in Nevada. We don't want  
it, we don't produce it &  
it will never be OK.*

*Robin Picardo*

1/08.03.01

PC-001

08 03 01

Comment Number 1

The Department of Energy acknowledges the commentator'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.

POE, W. LEE, JR., AIKEN, SC  
PAGE 1 OF 3

807 E. Rollingwood Rd  
Aiken, S. C. 29801  
May 6, 1996

U. S. Department of Energy  
Office of Fissile Materials Disposition  
P.O. Box 23786  
Washington, DC 20026-5156

Dear Sir:

Re: Comments on Draft FEIS "Storage and Disposition of Weapons-Usable Fissile Materials"

I would like to provide the Department my comments on the recent FEIS. I have a single comment on my view of what alternative should be selected. I have several comments on the materials presented in the FEIS and how they should be modified to improve the quality of the document.

**Proposed Action.**

The Department should select the MOX alternative for the proposed action. My judgment is based upon the following points.

- The surplus plutonium has large fuel value and should not be discarded. My view is that this plutonium should be fabricated into fuel and used to produce electrical energy. Recycle of the irradiated MOX-SNF should be used again to produce more energy, etc. As the Department of Energy has indicated the U. S. dependence on imported oil has increased from ~33% to ~67% over the last 15 years. This plutonium should be used to help turn-around this dependence on imported fuel by this country.
- Use of the plutonium can be accomplished in a safe and secure manner. This use will not increase proliferation. It can be safeguarded; all we need do is to turn our energies to developing this approach. This development can be accomplished in the same time that production of MOX fuel takes. Other nations have safely used this recycled plutonium while safeguarding it.
- This turning from an illogical posture (that of not reusing all of our energy sources) will show the world that the United States understands world needs and is prepared to help with premier approaches that meets all of the needs for energy and provides a tight safeguard system to ensure that the surplus weapon materials are not stolen and pose clandestine threats to world security.

1/08.03.01

M-165

08 03 01

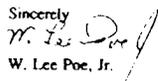
**Comment Number 1**

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

- The cost-effectiveness of this alternative should include the cost of replacing the energy generated by using the surplus plutonium with fossil fuel at today's oil prices and also at the cost of this replacement oil in say 20-years. Consideration should also be given to costs if the foreign oil producers decide to limit pumping of this oil to raise prices.

**Specific Comments.**

- Revise the last sentence of the summary to show that when used properly these stocks of weapons-usable materials do not pose a threat to world security. | 2/09.00.08
- Page S-4 the PEIS references DOE-STD-3013-94. Please have a copy of that standard sent to me.
- In several places in the PEIS (see page S-18 as an example), the statement is made that "because of the high percentage of minority and low populations in certain countries surrounding SRS, the potential exists for these populations to be disproportionately affected by an accident." This statement is not incorrect when all of the information presented in the PEIS is used but it does not apply only to SRS, it applies to most if not all DOE sites. At best, it is inflammatory to the minority residents and points out that in the areas surrounding SRS, minorities are at risk. From my understanding of the executive order pertaining to this subject, it requires DOE to evaluate "highly adverse" and "disproportionate" impacts. This PEIS did not evaluate either of these. Revise to place in perspective and apply to all of the DOE sites in the PEIS. | 3/09.08.08
- The PEIS assumes a threshold of 100 person-rem as some standards below which analysis is not required or given. The source and intent of this <100 person-rem floor is unclear. | 4/09.09.08
- The schedule for implementing the various alternatives should play a more important role in the PEIS. It is clear to me that the large driver for this PEIS is the need to get this weapon-usable plutonium under strict control as soon as possible. This raises several questions not addressed with sufficient clarity near the front of this PEIS. Several related points that need addressing early in the report are:
  - Safeguarding of U. S. governments Pu. | 5/01.00.00
  - Safeguarding of other governments Pu around the world. As I see it the prime justification for these actions is the Pu stored in the former Soviet countries. If this is the case, the PEIS should show how actions in the U. S. will affect these other countries' protection of their Pu.
- The deep borehole technology described in the PEIS seems to be in a very early stage of development and not sufficient for it to be a viable alternative in this PEIS. As I have seen in other projects, a proponent of a new technology underestimates the task of bringing such a technology to fruition and underestimates the associated risks. This section should discuss this item in sufficient detail that the reader can assess the alternative. Environmental effects of this alternative assume only technical risks. What about political risks and stakeholders concern of "disposal - not in my state". The Department has been hung-up on these disposal issues at Nevada for many years. | 6/04.00.00  
| 7/04.03.00

Sincerely  
  
W. Lee Poe, Jr.

M-165

**09 00 08                      Comment Number 2**

By meeting the Stored Weapons Standard, the storage of weapons-usable fissile materials managed by DOE will not pose a threat to world security.

**09 08 08                      Comment Number 3**

The PEIS evaluates demographic data for all of the candidate DOE sites. SRS has potentially affected minority and low-income populations within 80 km (50 mi) of the site. Although the health analysis for SRS indicates that there would be no significant adverse health impacts from operational and accidental releases of hazardous and radioactive materials, the PEIS acknowledges the possibility that dispersion of radioactive emissions could flow in the direction of minority or low-income populations. This could happen if an accident occurred and the wind conditions were unusual. However, the PEIS notes that the probability of such an accident is low and that under average meteorological conditions (based on the prevailing wind direction), accidental release of radiation would not lead to a disproportionate exposure to these populations.

**09 09 08                      Comment Number 4**

The Final PEIS has been corrected. 100 person-rem is not a standard below which analysis is not given or required for NEPA purposes. Proposed 10 CFR 834 (see 58 FR 16268) would require that potential annual population dose be limited to ALARA and generally total effective dose equivalent be limited to 100 person-rem/yr from all pathways combined for DOE activities. The radiation exposure to the public is limited by the maximum individual dose of 100 mrem/yr.

**01 00 00                      Comment Number 5**

Analyses of the cost, schedule, and proliferation impacts are discussed in separate documents to support DOE's ROD. The cost, schedule, and technical analyses were made available for public review beginning in July 1996. The nonproliferation analysis was made available to the public beginning in October 1996. A series of public meetings to discuss the proliferation analysis were conducted by DOE prior to issuance of the Final PEIS.

**04 00 00                      Comment Number 6**

More detailed information on a borehole technology is available in the Technical Summary Report and related borehole alternative summary reports made available to the public beginning in late July 1996.

**04 03 00                      Comment Number 7**

As described in Section 1.5 of the PEIS, environmental considerations, technical, economic, domestic and international policy, and schedule analyses will support the ROD.

Comment ID: P0031  
Date Received: May 1, 1996  
Name: Father Ted Pottson  
Address: 5005 Klinky Road  
Amarillo, TX 79107

Transcription:

I'm calling in to say that I am against Pantex having and storing nuclear waste and plutonium near where I live. Actually about four miles away. I as a citizen am against this. Thank you. | 1/08.03.01

P-031

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.

**PUBLIC MEETING ORAL COMMENTS, AMARILLO, TX**  
**PAGE 1 OF 29**

**Amarillo Public Meeting Oral Comments - April 22 & 23, 1996**

**Public Meeting Comments**

**Pantex Site**  
**April 22 & 23, 1996**

**Evening Meeting - April 22, 1996**

**Plenary Session**

- C: [Prepared statement of Senator, Mac Thornberry (see attached)].
- C: [Prepared statement of Representative, Larry Combest (see attached)].
- C: [Prepared statement of State Senator, Teel Bivens (see attached)].
- C: [Prepared statement of State Representative, David Swinford (see attached)].
- C: [Prepared statement of Mayor of Amarillo, Kel Seliger (see attached)].
- C: [Prepared statement of City Commissioner, Dianne Bosch (see attached)].
- C: [Prepared statement of Amarillo Economic Development Corporation, Vance Reed (see attached)].

**Evening Meeting**  
**Breakout Sessions**

- C: Fuel fabrication is not a new technology for uranium oxide, but we are talking about the technology to produce plutonium oxide. Significant changes to the facilities and processes would not be required. 1/06.01.08
- C: There would be a one-half percent increase. The language of adverse impact when the impact would not be significant and it is not used at any of the other sites that have a slight increase is very harsh and misleading. (Note: This comment was made after a discussion concerning adverse impacts of water usage at Pantex.) 2/09.04.04
- C: If DOE would not build the mixed oxide fuel facility at Pantex then the land would be used for something else. For example, if the land was used for farming, more water would be used than if the land was used for a mixed oxide fuel or storage facility DOE needs to compare 3/09.04.04

AM-001

**Note:** A number of documents submitted during the public meetings were recorded as part of the minutes. The same documents, in some instances, were also submitted as hand-ins at the end of the meeting. In those cases, the documents are analyzed once, either as part of the minutes or as stand alone documents.

Listed below are the names of the organizations/individuals who submitted documents as part of the minutes and the page numbers containing DOE's responses to the comments:

U.S. House of Representatives, Congressman William "Mac" Thornberry	3-1088
U.S. House of Representatives, Congressman Larry Combest	3-691
State of Texas, Senator Teel Bivins	3-107
State of Texas, State Representative, David Swinford	3-1003
Amarillo Mayor Kel Seliger	3-107
City of Amarillo, Commissioner Dianne Bosch	3-140
Amarillo Economic Development Corporation, Vance Reed	3-16
No Name Submitted	3-521

**06 01 08                      Comment Number 1**

Fabrication and use of MOX fuel using reactor grade Pu is a mature, industrial scale technology in Europe with at least three vendors actively fabricating MOX fuel. There are some differences introduced by the use of weapons-grade Pu, which DOE is addressing as part of an ongoing weapons-grade MOX fuel development program.

**09 04 04                      Comment Number 2**

The depletion of the Ogallala Aquifer is a serious concern for the Panhandle region. Pantex is the only DOE site considered in this PEIS where depletion of water resources is a concern. Since the Ogallala Aquifer is being depleted (that is, the current withdrawal is exceeding the current recharge), Pantex operations contribute to the depletion of the Ogallala Aquifer and are analyzed in the PEIS.

**PUBLIC MEETING ORAL COMMENTS, AMARILLO, TX**  
**PAGE 2 OF 29**

**Amarillo Public Meeting Oral Comments - April 22 & 23, 1996**

the disposition processes with other land usages rather than zero usage DOE is overreacting to the water usage at Pantex 3/09.04.04 cont.

C: But it is not a fair perspective, if there is a small change with not a large adverse impact We (the citizens of Amarillo) are very sensitive, when this language is used against the natural resources that we have. As stated before, the water usage for farming would be for irrigation. 2/09.04.04 cont.

C: DOE needs to clarify predicted water use, define the baseline, and put water use in perspective to other local uses (i.e., irrigation) (Note: This comment summarizes participants' concerns regarding water usage.) 4/09.04.04

C: DOE gives the impression that they have ranked sites. If DOE has ranked the sites then DOE needs to provide the basis for and an explanation about how the ranking will be used. 5/09.00.08

C: DOE should not consider small impacts that have no significant effect. DOE needs to change the language so that true impacts are expressed and insignificant ones are not. 6/09.00.08

**Evening Meeting  
Summary Session**

C: Any person opposed to using Pantex for any of these processes would oppose anything proposed in Antarctica 7/08.03.01

C: By trading one fuel for another, the waste would be different. In order to replace mining and milling, the United States would have to build a mixed oxide fuel fabrication facility, which would increase the amount of waste. 8/09.11.08

C: I am concerned about using the mixed oxide fuel process, which will contaminate the plutonium, rendering it no longer as a proliferation threat. Vitrification could accomplish this without the additional waste. 9/08.03.01

**Morning Meeting - April 23, 1996**

**Plenary Session**

C: The slide from the storage and disposition brief showed public input to the Record of Decision in reference to the preferred alternative. However, there has been no discussion on what the preferred alternative might be and the public is trying to provide comments. During the discussions last night on this issue there were no answers. DOE has seemed to make the 10/08.00.00

AM-001

**09 04 04 Comment Number 3**

The disposition environmental analyses in the PEIS are provided so that the decisionmaker can choose a disposition technology or combination of technologies. Site-specific analyses were provided in this document to provide a range of environments that could be affected. All comparisons are made to the No Action Alternative, so that a conservative analysis of the impacts is performed.

**09 04 04 Comment Number 4**

The No Action Alternative water use estimates for the year 2005 were used as the baseline against which each of the alternatives are compared in Chapter 4. Consistent with NEPA, the potential for impacts from operations at Pantex is analyzed; analysis of users outside the ROI is not within the scope of this PEIS. Since Pantex contributes to the depletion of the Ogallala Aquifer, the impacts are analyzed in the PEIS.

**09 00 08 Comment Number 5**

The Department of Energy did not intend to give the perception that the sites were ranked. Based on comments received, the Summary of the Draft PEIS was revised. All revisions made appear in the Summary of the Final PEIS.

**09 00 08 Comment Number 6**

Based on comments received, the Summary of the Draft PEIS was revised. All revisions made appear in the Summary of the Final PEIS.

**08 03 01 Comment Number 7**

The Department of Energy acknowledges the commentator'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.

**PUBLIC MEETING ORAL COMMENTS, AMARILLO, TX**  
**PAGE 3 OF 29**

**Amarillo Public Meeting Oral Comments - April 22 & 23, 1996**

preferred alternative moot to this process.

10/08.00.00  
cont.

**Morning Meeting  
Breakout Sessions**

- C: I urge DOE to collocate the storage facilities for strategic and surplus materials. | 11/08.03.01
- C: The radiological impacts chart showed that for storage there would be minimal impacts and for disposition the impacts would be within standards.
- C: Can DOE reference the standard or criteria that reached this basis. *(Note: This comment was related to a discussion on acceptable radiation exposure levels to workers.)* | 12/09.09.04
- C: There is not any reason not to consider long-term storage or disposition at Pantex. | 7/08.03.01  
cont.
- C: The wording within the document should be checked. The summary says there are adverse impacts to water usage at Pantex. | 13/09.04.04

**Morning Meeting  
Summary Session**

No summary session

**Afternoon Meeting- April 23, 1996  
Plenary Session**

- C: [Prepared statement of Source Unknown (see attached)]

**Afternoon Meeting  
Breakout Sessions**

Q: Executive Order 12898 addresses the Federal actions to be taken on environmental justice. A February 11, 1994 memo from President Clinton to all government agencies and department heads requires that the socioeconomic effects at site communities not just health effects are to be analyzed? Why have health effects only been covered in the draft Programmatic Environmental Impact Statements? *(Note: This question did not appear to be answered in the course of the meeting.)*

14/09.12.08

AM-001

09 11 08

**Comment Number 8**

The PEIS acknowledges the fact that constructing and operating a MOX fuel fabrication facility would increase the wastes generated at any sites selected for analyses. The wastes generated for the MOX fuel fabrication facility are presented in Section E.3.2.3. The impacts associated with operating the MOX fuel fabrication facility are presented in Section 4.3.5.1.10.

08 03 01

**Comment Number 9**

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 00 00

**Comment Number 10**

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 considerations independent of the NEPA analyses. The results of the technical, cost, and schedule analyses were issued by DOE beginning in July 1996, and the results of the nonproliferation study were issued in October 1996. This information will be used in reaching a ROD.

08 03 01

**Comment Number 11**

The Department of Energy acknowledges the commentator's support for the Collocation Alternative. Decisions on storage alternatives will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

Amarillo Public Meeting Oral Comments - April 22 & 23, 1996

C: The cumulative potential for adverse impacts in the storage and disposition summary show that Pantex has the highest impacts. I know adverse is a technical term used by the National Environmental Policy Act, but it is a scary and emotional term. Can DOE re-examine this and state exactly what adverse means.

C: I am concerned about the cumulative impacts in the storage and disposition document and summary, the document itself and the summary do not relate. I can't understand the basis for the statement adverse impacts? On pages 18, 19, 20, 28 and 31 of the summary, "could have adverse impacts" is stated for several sites, however, on S-72 "sites are expected to comply with ambient air standards and guidelines" both of these statements are referring to the upgrade alternative. I do not understand why Pantex, Savannah River Site, Idaho National Engineering Laboratory, and Richland are singled out.

15/09.00.08

Q: The Council on Environmental Quality Guidelines published in 40 CFR 1500 defines cumulative impact as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over period of time. Why is there no analysis of the incremental socioeconomic impact of this action when added to other past and present actions such as the cancellation and closure of several government programs? (Note: This question did not appear to be answered in the course of the meeting.)

16/09.08.04

C: DOE needs to address the issue of the definition for adverse impacts with the Council on Environmental Quality.

15/09.00.08  
cont.

Afternoon Meeting  
Summary Session

No summary session

The meeting was recessed, DOE representatives stayed until the 6 p.m. adjournment. During that time one individual came and a statement was presented to DOE by Cecil Wilson concerning the newspaper article by Mark C. Self. (Copy attached.)

AM-001

09 09 04

Comment Number 12

The Federal radiation exposure limit for an individual worker is 5,000 mrem/yr which is set forth in the Federal Code (10 CFR 835). This is the basis for limiting the radiation exposure to workers on DOE sites. Furthermore, DOE has also established an administrative exposure level of 2,000 mrem/yr (DOE/EH 0256T) for the workers. DOE requires all sites to maintain worker radiation exposure levels ALARA, preferably below the administrative level.

09 04 04

Comment Number 13

Since the Ogallala Aquifer is being depleted (that is, the withdrawal is exceeding the recharge), Pantex operations contribute to the depletion of the Ogallala Aquifer and therefore are analyzed in the PEIS.

Additional groundwater drawdowns from the Proposed Actions for the various long-term storage alternatives are expected to be very small. The Summary was revised to emphasize that, under the No Action Alternative, 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 are expected to be very small (less than 0.5 inches [in]/yr).

09 12 08

Comment Number 14

Socioeconomic impacts are analyzed in detail in all of the environmental statements noted by the commentor. The PEIS analyzes potential socioeconomic impacts for all of the Proposed Alternatives. For those alternatives that would add a new mission to a particular DOE site, there would be no adverse socioeconomic impacts. In fact, the analyses indicate that the impacts of these alternatives would be small but beneficial to the affected regional economies. There would be no environmental justice issues associated with these alternatives. For those alternatives involving phaseout of storage facilities, the job loss would be very small in all cases except RFETS. Even in the case of RFETS storage facility phaseout, the employment loss would only have a minimal impact on the local communities and the regional economy. Hence, there would be no environmental justice impacts from these alternatives.

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**PAGE 5 OF 29**

Thank you for allowing me the opportunity to make a few remarks.

Many of the others who will testify  
 will discuss the outstanding record of the Pantex plant,  
 the unparalleled level of community support which the plant enjoys,  
 and the willingness to consider other missions  
 as we sort out the nuclear weapons complex after the Cold War.

I'm going to focus on some broader questions  
 which certainly affect Pantex  
 but also the larger security needs of the country.

I do so not because I disagree with the other points  
 or because I don't think they are important.  
 Pantex's record, its people, its community support,  
 and its openness to other possibilities are its key strengths  
 and no one else can match them.

But during my tenure in Congress, *as a member of the Nat. Sec. Council,*  
 I have attempted to make a serious study *which covers our*  
 of our nuclear weapons complex, *weapons programs,*  
 in part because I represent one of its crown jewels  
 and in part because I believe  
 that a modern, effective nuclear capability  
 is absolutely necessary to our national security.

I won't say that I have learned all I can or intend to,  
 and I won't represent to you that I know all the answers  
 during this time of change and turmoil.

But I am confident that I know enough to raise some serious questions  
 that relate to the subject today and to our children's security.

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09 00 08

**Comment Number 15**

Based on comments received, the Summary was revised. The related text was revised to clarify the comparison of impacts and to delete references to "adverse" impacts. Also, language in the cumulative impacts section of the Summary has been revised to better reflect the impact analysis in Section 4.7 of the Final PEIS.

09 08 04

**Comment Number 16**

The proposed storage alternatives at Pantex would involve relatively small numbers of new workers and would not have a large impact on the regional economic area. In fact, adding new missions at Pantex would counter the projected decrease in workforce over the next decade that will result from the reconfiguration of the nuclear weapons complex. The Phaseout Alternative would involve the loss of only five jobs and even with projected future reductions, the cumulative impact would be small. These issues are discussed in Section 4.7.2.4.8 of the PEIS.

This is, of course, a time of great change  
brought about by the end of the Cold War,  
by the fact that the DOE was not as careful  
in the past as it should have been,  
and by this administration's decision to stop all nuclear testing.

Stockpile Stewardship and Stockpile Management

In my view, stockpile stewardship and stockpile management  
are important for the nation  
regardless of whether we conduct nuclear tests or not.

We should use a number of methods to make as sure as we can  
that our nuclear weapons are safe and reliable.  
In doing so, we are making a serious mistake  
if we neglect to factor in the importance  
of highly skilled workers at production plants.

I tend to agree with those who argue that we need smart people in labs  
and maybe even that we need smart people at two labs  
to compete against one another.

But every bit as much as we need smart people in labs,  
we need experienced, knowledgeable people in production plants  
who know how to take a design or a procedure  
and produce a product that meets the requirements  
safely and efficiently  
time after time  
so that we have weapons that are safe and reliable  
on which we can stake our children's freedom.

That's what people at plants like Pantex do.

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It's like if you're building a house,  
you need architects to draw up the blueprints and to consult with,  
but there is absolutely no substitute  
for skilled carpenters, and plumbers and painters  
who know how to get the work done,  
who know what problems there may be  
in translating the blueprints and procedures into precise components;  
and who have a proven track record  
of having done it --- time after time.

I am afraid that an undercurrent in DOE today,  
that sometimes even rises to the surface,  
is a lack of appreciation  
for the importance of those workers on the assembly line  
at Pantex and elsewhere.

If we lose them, we are a weaker nation  
and no number of PhD's at the labs  
will replace what we've lost.

I find it incredible that DOE would ask more and more  
of at least one of our production plants  
and yet allocate less money for it to fulfill its mission.

If we can't keep the trained, experienced personnel at Pantex,  
the country won't reach its goals for Stockpile Stewardship and Mgmt  
We will begin to lose confidence in our nuclear deterrent,  
and we will have been penny wise and pound foolish.

I am also concerned  
that we are just focusing on dragging out the life  
of current weapons  
without taking positive steps

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toward replacing our existing weapons  
which will all too soon be at the end of their intended design life.

A real question is whether we will be able to build nuclear weapons again  
and how.

There are many improvements which could be made now,  
others which we will want to make in the near future,  
and all the while we have to be prepared  
to deal with changes in Russia, China and elsewhere.  
I'm not sure we're ready.

High Explosives

Let me address the one issue in the PEIS  
for which no preferred alternative was included,  
that is high explosives.

When you compare apples to apples,  
no one seriously disputes  
that the most cost effective option  
is retaining the existing mission at Pantex.

The sole justification to moving high explosives  
to Los Alamos and Livermore  
is that we need to keep knowledge and competence  
of high explosives in the Labs.  
OK - but we need to keep it at the production level too.

You can do all the research you want  
and have all the knowledge you can handle,  
but if you can't reliably and safely translate that knowledge  
into real production,  
you have nothing.

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There is no reason in the world  
that the Labs can't continue to send people to Pantex as needed  
for the manufacture of high explosives,  
but to remove high explosives  
completely out of the production complex  
would be a big mistake.

Disposition -

The issue of what we're going to do  
with the excess plutonium and uranium is of key concern here.

As you know, we've got several thousand pits stored here  
with more being added every day.  
I am disappointed that the PEIS gives so little guidance  
on what's to be done.

We need to get on with making these key decisions.  
Two weeks ago at Los Alamos,  
I was able to see firsthand some of the work involved in the Aries project.

We have some very promising technologies,  
but the country needs leadership,  
and our area needs confidence that DOE knows what it is doing  
and is doing the right thing.

As long as I am in the Congress,  
I will be involved in making these decisions  
and I will do everything I can  
to see that our area is protected,  
to see that our nation is secure,  
and to see that our children have the opportunity to live in freedom.

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U.S. REPRESENTATIVE LARRY COMBEST  
(TEXAS--19)  
THE U.S. DEPARTMENT OF ENERGY'S  
PUBLIC HEARINGS  
AMARILLO, TEXAS  
APRIL 22, 1996

I would like to thank the Department of Energy (DOE) for holding these series of public hearings in Amarillo so that our Panhandle neighbors can have an opportunity to share their views on the DOE's Programmatic Environmental Impact Statements (PEISs) on Stockpile Stewardship and Management (SSM) and Storage and Disposition (S&D) of Weapons Usable Fissile Materials. I am pleased to be a participant in these public hearings to discuss Pantex's future.

Since the Pantex Plant's earliest origins in World War II as a site that built conventional bombs for the U.S. Army, countless numbers of individuals from across the Panhandle have made instrumental contributions to the United States' winning of the Cold War. In the post-Cold War era, Pantex workers have once again answered the call to duty in peacetime and found a new role in disassembling nuclear weapons. I stand here today to tell you that Pantex is not only ready, but uniquely qualified to continue to enhance its role as a vital component of our nation's nuclear weapons industrial base as we prepare for our national security needs for the 21st Century.

17/08.03.01

I can fully appreciate the DOE's responsibility to reconfigure the country's nuclear weapons production complex for the 21st Century. As the Chairman for the U.S. House of Representatives' Permanent Select Committee on Intelligence, I recently conducted a year-long review of what is commonly referred to as the "intelligence community," the classified government agencies that collect information to advise the president and Congress on actions of foreign governments and terrorists. The legislative proposal I introduced as a result of this year-long review will ready the nation's secret intelligence-gathering efforts for the 21st Century. The approach I took in crafting this proposal brings these agencies to end unnecessary duplication and work efficiently for better intelligence to keep America safe from nuclear proliferation, from terrorism, and from narcotics. America continues to need strong, highly-capable and ever-flexible intelligence community to provide the earliest-possible warning and analysis in a world that is still a very dangerous place. I want our nation to continue to meet the challenges of the next century, we should ask no less of our nation's nuclear weapon complex.

In the post-Cold War era, many have called for a retreat of our resources and readiness regarding national security. I believe that the post-Cold War era with nuclear proliferation leaves our nation more vulnerable than ever. Now that we no longer have the Soviet Union, we never know where our next threat is going to

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Comment Number 17

The Department of Energy acknowledges the commentor's support of continued and 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 considerations, and public input.

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come from. I urge the DOE to reject these specious arguments, and ensure that the nuclear weapons complex of the 21st century maintains our nuclear deterrent for the foreseeable future. With nuclear weapons remaining a vital component of our national security into the 21st Century, Pantex is the only facility that can fulfill this mission.

However, first and foremost I am adamant that any current and future functions at Pantex will be conducted in a safe and environmentally sound manner. The first priority for any expansion at Pantex is that it be implemented in a way that does not impair the health or safety of area residents or have an adverse affect on the environment. I believe these points serve as a prerequisite to any current or future activities at Pantex.

I do not take these points lightly. I was born and raised in the Panhandle. I grew-up not far from the Pantex Plant on a family farm. I would never support any proposal or effort that would endanger the lives or environment of this region. This is my home and members of my family reside here.

I am proud of the Pantex Plant's reputation as one of the cleanest facilities in the DOE's nuclear weapons complex. They have been good stewards of the land. As a matter fact, if I were not in Amarillo today talking about the importance of Pantex to our country, I would be singing their praises from back in Washington, D.C. Today, in Washington, the DOE's Pantex Plant is being recognized as a "Model Facility" and will receive the "White House Closing the Circle Award" for its efforts on waste minimization and recycling activities. Only twenty-two federal facilities from across the country received a "Closing the Circle" award. Clearly, Pantex takes its environmental safety responsibilities very seriously and I am pleased that this national award is highlighting their hard work.

In the DOE's draft FEIS, I am pleased that the department selected Pantex as the preferred alternative for assembly and disassembly. Wisely abandoning earlier plans to transfer those functions to the Nevada Test Site (NTS) which would have been cost prohibitive and painfully inadequate to meet future needs. In addition, I am pleased the DOE draft recognized the importance of Pantex to the country's nuclear weapons complex.

Pantex is perhaps the most cost-effective alternative for any new construction of Stockpile Stewardship and Management facilities. Among many of the reasons, labor, costs, utility rates and water and land availability at Pantex, as well as public and political support, are more agreeable than those at any other site in the complex. Pantex should be considered as an alternative site for future defense-related facilities to complement activities at the national labs. Location of additional defense-related activities at Pantex would ensure that core technical capabilities are preserved at a location that can secure them at the most efficient cost to American taxpayers. In deliberations, the DOE

17/08.03.01  
cont.

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should insist that budgetary comparisons between Pantex and other sites are accurate, and include capital, transportation, training, remediation, and other costs.

With the production assembly and disassembly functions remaining at Pantex, the high explosives functions should be present at the corresponding site. Even the DOE draft admits that Pantex must retain high explosives capabilities to process the inventories already on site from dismantling. Therefore, the least expensive alternative is to maintain high explosives functions at Pantex. I would also take issue with the draft PEIS statement that there are no advantages to siting high explosives at Pantex as opposed to the national labs. The capital outlay alone necessary for transfer is cost prohibitive. Also of importance, should future need arise for new weapons production it will be critical to have the high explosives facilities at the weapons production and assembly site.

As the DOE considers its options regarding the dismantling of a significant portions of the nuclear stockpile and searches for productive and environmentally sound uses for the dismantled components of our nuclear arsenal, Pantex and its functions are uniquely qualified for these new missions. Pantex has the necessary safety, security and surveillance capabilities to accommodate and expanded role with minimal costs to the federal government.

Once again, I would like to thank the Department of Energy for holding these hearings on the future of Pantex. I firmly believe the Pantex Plant will continue to play a vital role in our nuclear weapons complex well into the 21st Century. I applaud all of you who are here tonight to make your views known on this critical issue. I pledge to you that I will work with Representative Mac Thornberry and the rest of the Texas delegation in Congress to ensure that Pantex is a vital component of our country's nuclear weapons industrial base. I appreciate the opportunity to participate in this public hearing, and respectfully request the DOE to consider my recommendations. Thank you.

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The Senate of  
The State of Texas

SENATOR TEEL BIVINS  
DISTRICT 31

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April 22, 1996

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

Thank you for the opportunity to comment on the U.S. Department of Energy's Programmatic Environmental Impact Statements on Stockpile Stewardship and Management and Storage and Disposition of Weapons-Usable Fissile Materials. Please also consider this my comment on the Pantex Site-Wide Draft Environmental Impact Statement, since most of the issues addressed in these documents are identical.

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

I. Generally, I am pleased that DOE selected Pantex as the preferred alternative for assembly/disassembly, thereby abandoning earlier plans to transfer those functions to the Nevada Test Site which would have been cost prohibitive and never been adequate to meet future needs. However, by failing to recognize Pantex as the preferred candidate site for new and/or consolidated stockpile management facilities, the DOE overlooks the best site for maintaining the integrity of the U.S. nuclear stockpile and attaining maximum efficiencies and cost savings.

II. SSM PEIS:

1. Pantex is the best place to site new construction/stewardship activities. Pantex is perhaps the most cost-effective alternative for any new construction of SSM facilities. First, labor costs, utility rates, and water and land availability at

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Pantex, as well as public and political support, are more amenable than those at any other Complex site. DOE makes no mention of a strategic plutonium reserve that is necessary to meet future national security needs, even though the PEIS mentions that strategic storage should be co-located with disassembly. Pantex should be the preferred site for such a mission in coordination with its management functions. In its deliberations, DOE should insist that budgetary comparisons between Pantex and other sites are accurate, and include capital, transportation, training, remediation and other costs.

**2. Pantex is the best site to continue High Explosives fabrication.** Consistent with the strengths identified above for increased stewardship and management duties, the high explosives functions should also remain at Pantex. Because the production assembly/disassembly functions remain at Pantex, the HE fabrications duties should be present at the corresponding site. After all, the SSM Draft admits that Pantex must retain HE capabilities to process the inventories already on site from dismantling. Therefore, the least expensive alternative is to maintain HE functions at Pantex. I adamantly disagree with the statement in the draft PEIS that there are no advantages to siting high explosives at Pantex as opposed to the national labs. The capital outlay alone necessary for transfer is cost prohibitive. In addition, should future need arise for new weapons production, it will critical to have the HE facilities at the weapons production/assembly site. More over, this is a highly trained group of workers at Pantex with vast experience in HE fabrication. Creating a new workforce at another location would be inefficient, expensive and potentially dangerous.

**III. Fissile Materials (Plutonium) Storage and Dispositions PEIS.** As the sole DOE-authorized facility for the assembly and disassembly of nuclear weapons, Pantex has historically handled storage in a safe and efficient manner for more than 40 years. Once again, acknowledging cost saving considerations, Pantex could continue to store plutonium, which is already at the site, and upgrade facilities for any and all storage options being considered by DOE with minimal cost and difficulty. Pantex currently safehouses more than 8,000 surplus pits and plans are being made to ship additional pits from Rocky Flats to Pantex. It makes little sense to re-create storage facilities at another site and the unnecessarily transport large amounts of plutonium across the country from Pantex. The budgetary and political costs for such a decision would be enormous.

Of the three disposition options identified in the PEIS, it appears that only mixed-oxide fuel fabrication would be relevant to Pantex. Because this is an experimental procedure, I believe three criterion are critical before it be commenced: 1) It must be demonstrated beyond the shadow of a doubt that this plutonium processing can be done safely and in an environmentally sound fashion. The sad truth is DOE's history with processing plutonium is not a good one.

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2) The community of the Texas Panhandle must come together and support this technology being conducted at the Pantex Plant. Pantex currently enjoys widespread community support. If this technology meets criteria number one, I anticipate that the support could also go to the implementation of a mixed-oxide fuel processing program. 3) Independent regulatory oversight is more critical for disposition than any other area of DOE nuclear materials operations. From a public policy standpoint, it makes no sense that there is no independent regulatory oversight of DOE's handling of nuclear materials. (While Congress created the Nuclear Facilities Safety Board, it lacks the authority to shut down a plant.) Because of the regulatory morass that currently exists in the State of Washington, I believe that this regulatory oversight should be vested in one agency outside of the DOE. The lead agency could be a state agency or a federal agency. The lead agency would then contract with the other state and federal agencies needed to provide seamless regulatory oversight without overlap of function and jurisdiction.

IV. Conclusion. Based upon these reasons, I respectfully urge DOE to designate Pantex as the preferred alternative site for all existing and new stockpile management and stewardship functions, as well as, consolidation of all plutonium storage. Thank you for the opportunity to comment on these documents.

Sincerely,



Teel Bivins

TB/tsb

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DAVID SWINFORD  
STATE REPRESENTATIVE

COMMITTEES  
APPROPRIATIONS  
AGRICULTURE AND  
LIVESTOCK  
LEGAL AND CONSUMER  
CALIFORNIA

April 15, 1996

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U.S. Department of Energy  
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P.O. Box 3417  
Alexandria, VA 22302

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

Re: Comment on Stockpile Stewardship and Management (SSM) and Storage and Disposition (S&D) of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statements (PEISs).

Thank you for the opportunity to comment on the U.S. Department of Energy's (DOE) Programmatic Environmental Impact Statements (PEIS) on Stockpile Stewardship and Management (SSM) and Storage and Disposition (S&D) of Weapons-Usable Fissile Materials. Please also consider this my comment on the Power Site-Wide Draft Environmental Impact Statement, since most of the issues addressed in these documents are identical. First and foremost, I am pleased that any current and future functions at Pantex will be conducted in a safe and environmentally sound manner. Our first priority is to ensure any expansion at Pantex be implemented in a way that does not impair the health or safety of area residents or have an adverse effect on the environment. These goals serve as a prerequisite to any current or future activities at Pantex, including expansion.

I am pleased that DOE selected Pantex as the preferred alternative for assembly/disassembly, thereby abandoning earlier plans to transfer those functions to the Nevada Test Site (NTS) which would have been cost prohibitive and never been adequate to meet future needs. However, by failing to recognize Pantex as the preferred candidate site for new and/or consolidated stockpile management facilities, the DOE overlooks the best site for maintaining the integrity of the U.S. nuclear stockpile and ensuring maximum efficiencies and cost savings.

Pantex is perhaps the most cost-effective alternative for any new construction of SSM facilities. High labor costs, utility rates, and water and land availability at Pantex, as well as public and political support, are more amenable than those at any other Complex site. It is appropriate to consider Pantex as an alternative site for all future defense-related facilities to

STATE OF TEXAS  
POTTER AND MOORE COUNTIES

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complement activities at the national labs (such as the planned Alamos Facility and plutonium pit fabrication site at Los Alamos National Laboratory). DOE makes no mention of a strategic plutonium reserve that is necessary to meet future national security needs, even though the PEIS mentions that strategic storage should be co-located with disassembly. Panex should be the preferred site for such a mission in coordination with its management functions. The location of additional defense-related activities at Panex would ensure that core technical capabilities are preserved at a location that can secure them at the most efficient cost to the American people. In its deliberations, DOE should insist that budgetary comparisons between Panex and other sites are accurate, and include capital, transportation, training, remediation and other costs.

Consistent with the strengths identified above for increased ownership and management duties, the high explosives functions should also remain at Panex. Because the production assembly/disassembly functions remain at Panex, the high explosives fabrication duties should be present at the corresponding site. After all, the SEM Draft admits that Panex must retain high explosives capabilities to process the inventories already on site from dismantling. Therefore, the least expensive alternative is to maintain these functions at Panex. I adamantly disagree with the statement in the draft PEIS that there are no advantages to siting high explosives at Panex as opposed to the national labs. The capital outlay alone necessary for transfer is cost prohibitive. In addition, should future need arise for new weapons production, it will be critical to have the high explosives facilities at the weapons production assembly/disassembly site.

As the sole DOE-authorized facility for assembly and disassembly of nuclear weapons, Panex has historically handled these functions in a safe and efficient manner for more than 40 years. One of the challenges faced after dismantling a significant portion of the nuclear stockpile is processing or disposal with the materials that remain. The DOE is considering several options. Once again, acknowledging cost savings considerations, Panex could continue to store plutonium which is already at the site and upgrade facilities for any and all storage options being considered by DOE with minimal cost and difficulty. Panex currently stores more than 8,000 surplus pits and plans are being made to ship additional pits from Rocky Flats to Panex. It makes little sense to re-create storage facilities at another site and then unnecessarily transport large amounts of plutonium across the country from Panex. The budgetary and political costs for such a decision would be enormous. Because of those costs, Panex also should be designated the preferred site for any disposition options and related functions. It makes budgetary and policy sense to site disposition where storage already exists. Furthermore, it makes no sense from any perspective, budget or otherwise, to site strategic storage at one site and surplus at another. Panex should be selected for both storage functions. Panex has the necessary safety, security, and surveillance capabilities to accommodate an expanded role with minimal costs and it is the production site closest to Los Alamos, the planned pit fabrication site.

Based upon these reasons, I respectfully urge DOE to designate Panex as the preferred alternative site for all existing and new stockpile management and storage functions as well as consolidation of all plutonium storage and disposition and any related functions. Thank you for the opportunity to comment on these documents.

Sincerely,



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CITY OF AMARILLO

KEL SELIGER  
MAYOR

May 3, 1996

U.S. Department of Energy  
Office of Reconfiguration  
P.O. Box 3417  
Alexandria, VA 22302

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

Re: Comment on Stockpile Stewardship and Management (SSM) and Storage and Disposition (S&D) of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statements (PEISs).

Dear Sirs:

Thank you for the opportunity to comment on the U.S. Department of Energy's (DOE) Programmatic Environmental Impact Statements (PEISS) on Stockpile Stewardship and Management (SSM) and Storage and Disposition (S&D) of Weapons-Usable Fissile Materials. Also, please consider these my comments for the Pantex Site-Wide Environmental Impact Statement (SWEIS).

As the mayor of Amarillo, I have an obvious personal stake in the activities at Pantex as this plant is the largest employer in the region. But my first and foremost responsibility is to the welfare of the people and environment which is why I am adamant that any current and future functions at Pantex will be conducted in a safe and environmentally sound manner. While the Amarillo economy would surely benefit from an expansion of Pantex, my first priority is to ensure any expansion be implemented in a way that does not impair the health or safety of area residents or have an adverse affect on the environment.

That being said, I noted with great interest at the April 22-23 hearings that many of our residents who make their living "off the land" (including public officials such as Congressman Mac Thornberry and St. Rep. David Swinford) have recognized DOE's findings that there are "no significant impacts" of any planned or current activities at Pantex. While the safeguarding the environment is a prerequisite to any current or future activities at Pantex, I want to ensure that Pantex is not "passed over" for any functions which could be performed safely. Further,

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such incorrect applications of NEPA serve to mislead, and in some cases unjustly concern, our residents. I urge DOE to correct its findings which unfairly discriminate against Pantex by rankings which are not based on "significant" impacts.

I. **Generally.** By failing to recognize Pantex as a candidate site for new stockpile management facilities, the DOE overlooks the best choice for consolidation of functions to maintain the integrity of the U.S. nuclear stockpile and attain maximum efficiencies and cost savings. Pantex played an important role in our Cold War victory and the plant will continue to serve as the sole DOE site for maintaining a safe and reliable nuclear deterrent to meet our national security needs.

II. **SSM PEIS:**

1. **Pantex is the best place to site new construction/stewardship activities.** I support DOE's finding that Pantex is the best site for assembly/disassembly and related management functions. Pantex is perhaps the most cost-effective alternative for any new construction of SSM facilities. First, labor costs, utility rates, and water and land availability at Pantex, as well as public and political support, are more amenable than those at any other Complex site. The location of new or consolidated activities at Pantex would ensure that core technical capabilities are preserved at a location that can secure them at the most efficient cost to the American people. In this regard, I recall, at the 1995 Notice of Intent hearings in Amarillo, that DOE said it "will not build duplicative facilities, *unless DOE decides to do so.*" If I ran the City of Amarillo this way, we would be swimming in red ink. In its deliberations, *DOE should insist that budgetary comparisons between Pantex and other sites are accurate, and include capital and transportation costs.*

2. **Pantex is the best site to continue High Explosives fabrication.** Consistent with the strengths identified above for increased stewardship and management duties, the HE functions should also remain at Pantex. Since assembly/disassembly functions will remain at Pantex, it follows that HE fabrications duties should be present at the same site. Should the need arise for new weapons production, it will be critical to have the HE facilities at the production site. Further, DOE officials at the April 22-23 hearings admitted that it would cost more to move these functions to the labs, and that the labs lacked the critical quality assurance capability which Pantex already possesses. How then can DOE assert that there is no cost advantage to either site? Again, DOE is ignoring not only the cheapest site, but the best site for maintaining our nuclear deterrent.

III. **Fissile Materials Storage and Disposition PEIS.** As the sole DOE-authorized facility for assembly/disassembly for nuclear weapons, Pantex has historically handled these functions in a safe and efficient manner. Once again, acknowledging cost savings considerations, DOE should maintain the current storage of surplus and Strategic Reserve plutonium which is already at the site and upgrade facilities for expanded long-term missions. Pantex currently safehouses more than 8,500 surplus pits and plans are being made to ship the pits from Rocky Flats to Pantex. It makes little sense re-create storage facilities at another site and then transport

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large amounts of plutonium across the country from Pantex. DOE said at the hearing "it made sense" to collocate strategic storage and assembly/disassembly to minimize transportation, and to collocate strategic storage with surplus storage, since the strategic stockpile may be declared surplus at some point. DOE should not only recognize that storage should follow disassembly, but also that certain disposition options should follow storage to minimize transportation and other costs. In addition, since most of the plutonium deemed surplus is already at Pantex, and given Pantex's close proximity to LANL (the new site for pit fabrication), it makes practical and economic sense to site any plutonium disposition functions at Pantex.

**IV. Site-Wide EIS.** I am concerned about the "plane crash" analysis. As Mayor, I have been deeply involved in efforts to reduce overflights over the plant, and other preventative measures. How can it be that the probability of a crash causing a release has increased since your 1994 Finding of No Significant Impact, after Pantex and the Amarillo Airport? Even the DOE officials at the hearings conceded that their analysis had serious problems, and needed to be corrected. I urge your office to correct these errors, and act to avoid wrongfully depriving Pantex of future functions for which it may be selected.

**V. Conclusion.** Based upon these reasons, I respectfully urge DOE to designate Pantex as the preferred alternative site for all existing and new stockpile management functions as well as consolidation of plutonium disposition and control. Thank you for the opportunity to comment on these reports.

Yours truly,

  
Kel Seliger  
Mayor of Amarillo

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**PUBLIC MEETING ORAL COMMENTS, AMARILLO, TX  
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**HON. DIANNE BOSCH  
CITY COMMISSIONER  
CITY OF AMARILLO, TEXAS**

**COMMENTS ON THE STOCKPILE STEWARDSHIP AND MANAGEMENT  
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT,  
STORAGE AND DISPOSITION OF FISSILE MATERIALS PROGRAMMATIC  
ENVIRONMENTAL IMPACT STATEMENT AND  
PANTEX SITE-WIDE ENVIRONMENTAL IMPACT STATEMENT**

**THANK YOU FOR THE CHANCE TO ADDRESS THE DEPARTMENT OF  
ENERGY IN THIS INTERACTIVE WORKSHOP FORMAT. AS AN  
AMARILLO CITY COMMISSIONER SINCE 1989, I HAVE WITNESSED  
COUNTLESS D.O.E. HEARINGS ON PANTEX. THE GIVE-AND-TAKE  
BETWEEN THE AUDIENCE AND THE D.O.E. OFFICIALS IS VERY  
INFORMATIVE TO EVERYONE IN ATTENDANCE. THE D.O.E. IS TO BE  
APPLAUDED FOR THE USE OF AN INTERACTIVE FORMAT, AND SHOULD  
CONTINUE TO USE IT IN FUTURE HEARINGS.**

**THE D.O.E. IS ALSO TO BE APPLAUDED FOR THE OPEN MANNER WITH  
WHICH IT HAS, AND CONTINUES TO, ADDRESS LOCAL  
ENVIRONMENTAL CONCERNS. WE ARE ALSO THANKFUL THAT GOOD  
MANAGEMENT AT PANTEX BY THE D.O.E.'S CONTRACTORS, MASON &  
HANGER AND BATTELLE, HAS PREVENTED PANTEX FROM HAVING  
ENVIRONMENTAL PROBLEMS OF THE TYPE AND MAGNITUDE FOUND  
AT OTHER D.O.E. SITES. AS IS EVIDENT BY THE LARGE TURNOUT  
TONIGHT, THIS COMMUNITY STRONGLY SUPPORTS PANTEX, AND THIS**

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SUPPORT COMES IN LARGE MEASURE FROM THE D.O.E.'S  
COMMITMENT TO OUR LOCAL ENVIRONMENT. THAT CONTINUED  
COMMITMENT TO THE ENVIRONMENT IS CRITICAL FOR COMMUNITY  
SUPPORT OF ALL CONTINUED OR NEW MISSIONS AT PANTEX.

REGARDING THE STOCKPILE STEWARD SHIP AND MANAGEMENT PEIS,  
I STRONGLY SUPPORT THE CHOICE OF PANTEX AS THE PREFERRED  
ALTERNATIVE FOR THE ASSEMBLY AND DISASSEMBLY MISSION. THIS  
COMMUNITY IS EXTREMELY PROUD THAT PANTEX PLAYED AN  
IMPORTANT PART IN WINNING THE COLD WAR, AND WILL CONTINUE  
TO PLAY A CRITICAL ROLE IN REDUCING THE SIZE OF THE NATION'S  
NUCLEAR ARSENAL IN THE POST-COLD WAR PERIOD. KEEPING THIS  
MISSION AT PANTEX IS NOT ONLY THE RIGHT CHOICE FOR AMARILLO,  
IT ALSO MAKE SENSE FROM A NATIONAL PERSPECTIVE BECAUSE IT  
MAINTAINS A CONTINGENT PRODUCTION CAPABILITY, AND IT SAVES  
MORE THAN 1.5 BILLION DOLLARS WHEN COMPARED TO THE COST OF  
TRANSFERRING THE WORK TO THE NEVADA TEST SITE.

AS LONG AS WE ARE ON THE SUBJECT OF COST SAVINGS AND  
RETENTION OF PRODUCTION CAPABILITY, THE D.O.E. MUST NOT LET  
THE HIGH EXPLOSIVE (H.E.) FABRICATION MISSION BE MOVED FROM  
PANTEX. PANTEX EMPLOYEES HAVE SUCCESSFULLY PERFORMED  
THIS MISSION FOR MORE THAN FORTY YEARS, AND THERE IS

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**PUBLIC MEETING ORAL COMMENTS, AMARILLO, TX  
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ABSOLUTELY NO REASON FOR THIS WORK TO BE MOVED. WHEN THE WEAPONS COMPLEX WAS ORGANIZED, IT MADE LOGICAL SENSE TO LOCATE HIGH EXPLOSIVE WORK WITH ASSEMBLY AND DISASSEMBLY. IT STILL MAKES SENSE. FURTHERMORE, THE D.O.E.'S OWN ANALYSIS INDICATES THAT THE COST OF TRANSFERRING H.E. WORK TO NEW MEXICO LABS WOULD BE FIFTY MILLION DOLLARS. IT IS INCONCEIVABLE. THAT THE D.O.E. MIGHT SEEK TO JUSTIFY SPENDING FIFTY MILLION DOLLARS ONLY TO END UP WITH LESS PRODUCTION CAPABILITY IN A LOCATION THAT HAS NEVER PERFORMED THIS MISSION.

IN TERMS OF STORAGE AND DISPOSITION ACTIVITIES, I WOULD FIRST LIKE TO NOTE MY PREVIOUS COMMENTS ABOUT THE NEED TO PROTECT THE ENVIRONMENT. I AM ENCOURAGED BY THE PREVIOUS COMMENTS ABOUT THE NEED TO PROTECT THE ENVIRONMENT. I AM ENCOURAGED BY THE OUTSTANDING ENVIRONMENTAL RECORD THAT PANTEX HAS REGARDING STORAGE OF PLUTONIUM OVER MANY YEARS. I HOPE THAT THE D.O.E. WILL MAKE THE RIGHT CHOICE AND CONTINUE THE SAFE STORAGE OF SURPLUS PLUTONIUM AT PANTEX. I ALSO HOPE THAT THE D.O.E. WILL KEEP IN MIND THAT PLUTONIUM FROM DISMANTLED WEAPONS REPRESENTS A TREMENDOUS INVESTMENT AND MAY PROVE TO BE A VALUABLE ASSET IN CIVILIAN

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USE. I URGE THE D.O.E. TO CHOOSE PANTEX AS THE SITE FOR ENVIRONMENTALLY SOUND DISPOSITION ACTIVITIES.

ONCE AGAIN, THANK YOU FOR THE OPPORTUNITY TO COMMENT ON THE D.O.E.'S PLAN FOR THE FUTURE OF PANTEX. PANTEX HAS BEEN AN IMPORTANT PART OF OUR REGIONAL ECONOMY FOR MANY YEARS, AND WE SUPPORT THE CONTINUATION OF ENVIRONMENTALLY SOUND OPERATIONS AT THE PLANT. I WOULD ALSO LIKE TO THANK ALL THE CONCERNED CITIZENS OF OUR COMMUNITY WHO HAVE MAKE THE EFFORT TO ATTEND THIS MEETING TONIGHT.

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PUBLIC MEETING ORAL COMMENTS, AMARILLO, TX  
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Mr. Vance Reed  
President, Amarillo Economic Development Corporation

Comments on the Stockpile Stewardship & Management PEIS,  
the Storage & Disposition of Fissile Materials PEIS, and  
the Pantex Site-Wide EIS

Thank you for this opportunity to provide input to the Department of Energy regarding the operation of the Pantex plant. I would like to address two primary issues tonight regarding Pantex's future: 1) the environment, and 2) jobs.

Starting with the environment, I would like to reiterate this community's adamant position that all work performed at Pantex continue to be done in a fashion that protects the environment. While the public has heard a great deal about "contamination" at Pantex, there has been little media attention given to the nature of pollution problems at Pantex. Most contaminants at Pantex are related to solvents and hydrocarbons that are very similar to those that would be found at practically any large manufacturing facility. This community is very reassured by the fact that Pantex has not had contamination problems from radioactive materials, such as occurred at Rocky Flats and Hanford.

The Amarillo Economic Development Corporation views Pantex in much the same manner as we view other large manufacturers in terms of presenting risks to the environment. For instance, if we were recruiting a computer chip manufacturer, we would realize that these plants have hazardous waste streams including arsenic and other heavy metals. The A.E.D.C. would only recruit a company that is committed to full compliance with E.P.A. and state environmental regulations. High tech businesses have created whole new industries and thousands of jobs, while working with very hazardous substances. This shows that protection of the environment and job creation can go hand-in-hand.

Likewise, we believe that Pantex can be a site where good, high-paying jobs are created in a work environment that includes potentially dangerous materials. When

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measured in terms of total payroll, Pantex is by far the area's largest employer. With 3,500 employees at the plant, a job multiplier of 3.87 shows that Pantex is responsible for a total of over 13,500 jobs in this region. This multiplier was established by Dr. Ray Perryman at Southern Methodist University. The multiplier reflects the fact that the money that Pantex brings into the local economy supports many retail, medical, educational, finance, insurance and real estate jobs. All told, employment related to Pantex represents over 12% of all jobs in the Amarillo metropolitan area. I urge the D.O.E. to correct the socio-economic impact portions of all three EIS documents to accurately reflect the impact of Pantex on our local economy.

Because of the importance of Pantex to our local economy, the A.E.D.C. is very pleased that Pantex has been chosen as the preferred site for continued assembly and disassembly functions. We also believe this decision is in the best economic interests of the nation, as it saves more than 1.5 Billion dollars to American taxpayers. I also urge the D.O.E. to continue the high explosive fabrication mission that is currently performed at Pantex. Again, this not only protects jobs in our region, it saves American taxpayers 50 Million dollars compared with the cost of moving these operations to New Mexico.

For Pantex's future, the D.O.E. should locate storage and disposition missions at Pantex, as long as they can be done in an environmentally safe fashion. I urge the Department to make use of the expertise of the Amarillo National Resource Center for Plutonium. This resource center, which is operated by the University of Texas System, the Texas A&M University System, and the Texas Tech University System, can provide world-class evaluation of disposition options. I believe the Amarillo area will prove to be an outstanding operating environment for those storage and disposition functions that have been fully scientifically evaluated and safely implemented.

Once again, thank you for the opportunity to address you in this workshop tonight.

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Daily News

Monday, April 23, 1976

## Pantex mechanic tired of plant's negative image

Well, I've had a thought in my mind. I've been in the maintenance shop at Pantex. I was sick and tired of being put around in those maintenance shops and some kind of a maintenance shop, gathered up with my fellow workers and some other workers. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

### Mark C. Self

There was the underlying goal of the program. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

The program's employees, having been exposed to a more environmentally protective program, are a lot more concerned about the program. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

When I was a boy on my grandpa's farm, I remember helping him change oil in his car. The oil was drained out right into the ground. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

### Continuation

I don't know, maybe better on a few questions. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

K.C. WILSON  
2-216 M/LAM  
AMARILLO TEXAS  
352-1763

Amarillo, TX  
April 23, 1976

plants. There was never any mention of the health effects of the materials which were used in the production of the oil. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

I also remember my grandfather making particulate and hydrocarbon control tests for personal protective gear. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

Grandpa is dead and gone, but the farm is still in the family. I've had a thought in my mind, I've had a thought in my mind, I've had a thought in my mind.

What would the Texas Natural Resources and Conservation Commission find if it were

*Retired Employee  
Mark C. Self  
Monday Page 5 A  
Comprehensive picture  
of the real plant  
Opponents -  
Redundant  
Owner  
Clergy  
Exhibitionists  
Economic Value*

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Necessary Fleet - and. Do not have to pay for it.

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

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Augusta Public Meeting Oral Comments - April 30, 1996

**Public Meeting Comments**

**Savannah River Site**  
**April 30, 1996**

**Morning Meeting**  
**Plenary Session**

C: Please clarify the time frame of the documents release

C: The cost should not drive the decision but it should be considered. Timing could have a stronger driving force and it has not been mentioned. You (DOE) did not mention future generations and the conservation of nonrenewable resources. Other countries will have nuclear technologies available and the United States will be behind technologically. I am looking for a complete environmental analysis that includes cost, timing, impacts to future generations, and conservation of nonrenewable resources. 1/01.00.00

C: My initial fears about the Savannah River Site have been reassured, allowing me to ignore all of the negative statements I have heard in the past which did not have a basis in fact. I am now reassured that the site is safe and environmentally sound. Savannah River Site is logical for the storage and disposition options. The Savannah River Site community is involved and wants to keep the public and environment safe. The site is the largest employer in the area and with the downsizing effort there have been some negative impacts from an economic standpoint. I urge DOE to use the Savannah River Site and its intellect and physical infrastructure. We welcome you. 2/08.03.01

C: I would like to address two issues. 1) I am fearful that without having a continued needed mission at the Savannah River Site, DOE will lose this nuclear weapons expertise and experience; 2) Savannah River Site has a good future use plan, the other sites may not. I would hope that the other sites have a wildlife preservation plan for their undeveloped areas. DOE should make it a policy to not build on green field sites, but build new facilities by using brown field sites, a complex wide program. DOE needs to disregard the deep borehole option. 3/15.00.00  
4/08.03.01

C: The Savannah River Site has touched everyone's life directly or indirectly. Through my work as Director of Planning for the Lower Savannah Council, I feel the Savannah River Site programs, manpower, and experience are an integral part of this community. Informing the public has been good and it is very important to know what is going on with the Savannah River Site and 2/08.03.01  
cont.

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**Note:** Some documents submitted during the public meeting were recorded as part of the minutes. The same documents, in some instances, were also submitted as hand-ins at the end of the meeting. In those cases, the documents are analyzed once, either as part of the minutes or as stand alone documents.

Listed below is the name of the individual who submitted a document as part of the minutes and the page number containing DOE's responses to the comments:

American Nuclear Society, James Dewes 3-32

**01 00 00 Comment Number 1**

Cost and timing (schedules) were not addressed in the PEIS since it focuses primarily on environmental analyses. However, cost and schedules were considered in a separate Technical Summary Report issued in July 1996. These factors will be considered, along with environmental impacts of the candidate alternatives, as part of the ROD. Conservation of nonrenewable resources for Reactor Alternatives is considered in this PEIS.

**08 03 01 Comment Number 2**

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.

**15 00 00 Comment Number 3**

Comment noted.

**08 03 01 Comment Number 4**

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.

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its potential. We (citizens) would like to see the Savannah River Site utilized. We (citizens) feel the Savannah River Site has the ability and experience to do perform these options, the economics are not only in the best interest for the community but for the United States.	2/08.03.01 cont.
C: If the plutonium was turned into a powder or dust form, low income areas and minorities would be disproportionately impacted if dispersed.	5/09.12.08
C: It is important to bring the public into this process. What is the weakness within public outreach that a more diverse group is not here at this meeting to learn and raise their concerns. A more diverse group would assist DOE in decisionmaking and they would be involved in the process.	6/08.02.00
Q: Why can't DOE reopen and process the fuel rods and radioactive material at the Barnwell Plant?	7/15.00.00
C: I understand that DOE has five reactors containing spent fuel that have been sitting for five years, why doesn't DOE use them. Why is DOE letting them sit there?	8/01.04.00
C: Participant showed a slide on the future use of Savannah River Site. (slide attached)	
C: The Barnwell Plant closed fifteen years ago. It was shut down by President Carter, he shut the plant down without conducting the National Environmental Policy Act process. It is not encouraging that other countries have done processes that the United States did not encourage and they have performed them successfully, for example, reprocessing. So why does the United States think we can influence them now?	9/01.03.00
Q: Referencing the calculation of potential risks in the summary, Savannah citizens are in the range of the site for getting cancer. Did DOE look at the Savannah River Site only for the release of radiation or did DOE look at all of the industries in the area combined with the Savannah River Site that could cause effect?	10/09.00.06
A: I believe it covers the cumulative impacts from the Savannah River Site only. DOE will review that again to make it clearer.	
C: That is not fair to the citizens of Savannah. There should be a combination of the Savannah River Site and industry impacts. It could show that we may live longer if the Savannah River Site was closed.	11/09.00.06

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09 12 08

**Comment Number 5**

A review of the geographical distribution of minority and low-income populations and meteorological data indicates that if an accidental release of radiation were to occur, these particular populations would not be disproportionately affected. The prevailing wind conditions at SRS, for example, would not lead to dispersion of the Pu to cause these populations to receive higher doses than other populations.

08 02 00

**Comment Number 6**

The Department of Energy announces, in advance, public meetings on NEPA documents with the intent of involving all interested parties. These meetings are advertised in a number of ways in order to encourage full public participation. Eight public meetings were held concerning this PEIS to present information contained in the Draft PEIS and to receive public comment. All comments submitted received equal consideration.

15 00 00

**Comment Number 7**

This would require appropriately designed facilities including extensive chemical processing. 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.

01 04 00

**Comment Number 8**

Existing DOE reactors were operated for the purpose of R&D. Most of these reactors are of smaller scale and would not have sufficient infrastructure to support the Pu disposition mission.

01 03 00

**Comment Number 9**

The goal of the materials disposition program is to utilize processes that place Pu in a form that meets the Spent Fuel Standard, a condition where the Pu is as inaccessible and difficult to retrieve and reuse in nuclear weapons as the Pu

Augusta Public Meeting Oral Comments - April 30, 1996

- C: Under Stockpile Stewardship and Management it seems that more pits will be made and under Storage and Disposition, DOE is trying to figure out what to do with the pits. This doesn't make sense for one document to make more plutonium and then the other does not know what to do. 12/01.00.00
- Q: The possible use of two options being an "either" "or" situation has not been addressed. How long would it take to vitrify 50 tons? How long would it take to process 50 tons in a reactor? How long would it take if both options were used for the 50 tons? 13/05.01.08  
14/06.00.08  
15/01.04.00

Morning Meeting  
Breakout Sessions

- C: DOE needs to realize that with the public meetings and breakout sessions there will always be a room of people that are not well-versed on the topic. DOE needs to address this situation. 16/08.02.00
- C: If DOE could commit now to using the European capability the space would be available. With a commitment, the capacity for the lead test assembly or test demonstration program and the first core loading will be available. However, it has to be committed early, instead of waiting and the capacity being full. 17/15.00.00
- Q: What is the greatest negative of using mixed oxide fuel? (Note: This comment initiated a discussion about proliferation when converting plutonium to mixed oxide fuel but there was never a definitive statement of risk.) 18/06.01.06
- Q: Why is the commercial industry in the United States considered to be a proliferation risk? Why can't the commercial industry be trusted to reprocess when DOE trusts Mario Fiori? (Note: The response provided at the meeting did not appear to fully respond to the issue.) 19/01.06.00
- C: In an International Atomic Energy Agency report that looked at large scale processing plants and mixed oxide production, it said there is no proliferation risk. For Europe, the International Atomic Energy Agency is concerned about nonproliferation 20/01.06.00
- C: With that answer, I would think the reactor option would be discounted because of the waste generated. 21/08.03.01

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that is present in spent fuel from nuclear reactors. While the PEIS discusses the generation of spent fuel as a result of potential disposition actions, any subsequent reprocessing and extraction of Pu from the spent fuel is beyond the scope of the PEIS and 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 evaluate reprocessing of the spent fuel, does not preclude future changes in the U.S. Nonproliferation Policy.

09 00 06 Comment Number 10

In accordance with NEPA regulation 40 CFR 1508.7, *Cumulative Impacts* are defined as impacts that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. With respect to radiological impacts from normal operations, the contribution from the Vogtle Nuclear Plant (located across the Savannah River from SRS), considered a present action under this definition, is included in the cumulative impacts presented in Section 4.7.2.6.9. There are no other facilities in the area of SRS that release radioactivity to the environment.

09 00 06 Comment Number 11

No other Federal, State, local, or private reasonably foreseeable actions were found that would contribute to cumulative impacts for the time period being considered. When possible, planned projects before the year 2005 No Action baseline have been incorporated into the No Action Alternative. The No Action Alternative takes into account existing site operations and includes the impacts resulting from planned changes to operations until the year 2005. Projects planned for beyond the 2005 No Action baseline would be in such a preliminary stage as to make analysis speculative.

01 00 00 Comment Number 12

No new weapons are being produced, but the United States needs to maintain the core competency and capabilities to produce pits to support national defense in a dynamic world. Existing pits declared surplus need to undergo the disposition process to fulfill the goals of the President's Nonproliferation Policy and to provide visible evidence of irreversible disarmament.

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<p>C: It is not in the draft Programmatic Environmental Impact Statement. (Note: This comment was made at the end of a discussion regarding how DOE accounted for waste generated by the mixed oxide fuel option as compared to the waste generated by uranium mining and burning of the fuel. DOE committed to do more with this in the final Programmatic Environmental Impact Statement.)</p>	22/09.11.08
<p>C: Salt drifts would be released to the aquatic environment and the wetlands with the reactors mentioned earlier that use cooling towers. There are several endangered animals along the Savannah River which would be impacted, this should be analyzed. The salt is corroding the beaches in Savannah.</p>	23/09.06.06
<p>C: The deep borehole option would place the plutonium in itself. The barrier is the length of the hole. Then there is the mixed oxide fuel reactor, which could create energy giving it an economic value. Both options create nuclear waste, however, mixed oxide fuel may create more waste. The United States has the potential to reprocess the fuel now. The immobilization and deep borehole options will require very sophisticated technology and equipment to retrieve the plutonium. Wouldn't it be easier to reprocess the plutonium in case it is needed later, since it is harder to retrieve material from immobilization or from the deep borehole.</p>	9/01.03.00 cont.
<p>C: If you look at the amount of plutonium being discussed today and the amount of plutonium generated in commercial reactors over fifteen to seventeen years, it is about two percent of the total available.</p>	24/15.00.00
<p>C: If the United States does not use mixed oxide fuel it will lose technology and expertise. The United States was a technology leader now will become a beggar.</p>	25/08.03.01
<p>C: My comment and question regard excess (surplus) plutonium. People don't understand the difference between the commercial spent fuel issue and the nonexcess material. This confusion should be cleared up. How will DOE get the material to the spent fuel standard and not change the isotopic content?</p>	26/01.04.00 27/01.00.00
<p>C: I have heard today that on one hand DOE does this and on the other hand DOE does that. It seems that some things have been taken out of context when DOE is suppose to have put this altogether and considered everything. The United States just keeps chasing its tail. There are some people who cannot grasp the information and get the correct perspective. One statement says DOE is doing this to get rid of plutonium then DOE is generating plutonium. It bothers me that statements contradict each other.</p>	28/01.00.00

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**05 01 08                      Comment Number 13**

Current plans call for vitrifying 4 or 5 t (4.4 or 5.5 tons) of Pu per year, resulting in a 10- to 12-yr campaign for the full 50 t (55 tons).

**06 00 08                      Comment Number 14**

The details vary with selections of reactor designs and specific core designs. Typically, a very large LWR is capable of consuming MOX fuel at a rate of 1 t (1.1 tons) of Pu per year. If 5 reactors were used, then the irradiation campaign would be about 10 years, not including an approximate 10-yr period required to make the fuel available to the reactors.

**01 04 00                      Comment Number 15**

The length of time depends on the throughput of each facility and how many facilities are being used, which in turn is determined by the urgency of the mission and the amount of available congressional funding. Analyses of the cost, schedule, technical, and Nonproliferation Policy impacts are described in separate documents to support DOE's ROD. The cost, schedule, and technical analyses were made available for public review beginning in July 1996. The nonproliferation analysis was made available to the public beginning in October 1996.

**08 02 00                      Comment Number 16**

Comment noted.

**15 00 00                      Comment Number 17**

Comment noted.

**06 01 06                      Comment Number 18**

The use of MOX fuel is analyzed for the Reactor Alternatives in the PEIS to provide an understanding of their potential environmental impacts, and how these impacts differ from those of the other alternatives. No attempt is made to rank the alternatives since all of the impacts are within acceptable environmental, safety, and health limits.

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<p>C: DOE is fooling itself, if it (DOE) thinks that it can influence another country to do what the United States wants. DOE needs to look at what can be done and how to move forward instead of linking it with an unpredictable party. I am trying to justify what our time is being spent on.</p>	<p>29/01.00.00</p>
<p>C: The agreement on disposition seems to be an element of uncertainty. The United States should use the technology it has now to deal with our problems and not wait for the Russians. Things are taken out of context, one idea is jumped on then it is dropped, the public ends up getting the wrong impression. I am sure some of the public today is searching for information.</p>	<p>30/01.06.00</p>
<p>C: Future generations are not mentioned in the draft Programmatic Environmental Impact Statement. What happens when the United States runs out of fossil fuels? The National Environmental Policy Act states that the impact of making energy resources inaccessible or irretrievable should be considered. What is the impact for the year 3000 is not the impact for the year 2010. Will DOE look at the alternatives, for example operational reactors, partially constructed reactors, and new reactors? These would supplement the energy of fossil fuels and reduce carbon dioxide emissions. The cost and cost benefits need to include the cost of research and development of other plants, when will it be made available.</p>	<p>31/01.04.00</p>
<p>C: What are the barriers DOE perceives for closer coordination with the United States program, to include light water reactors, perhaps even to burn the Russian plutonium in addition to the United States plutonium and what is being done to bring the barriers down?</p>	<p>32/01.06.00</p>
<p>C: There is momentum for the Canadian option because of pairing. I don't think that the United States pairing has been explored enough, it needs a harder look.</p>	<p>33/01.03.00</p>
<p>C: Russia won't give us their material for free and the Canadians will be getting the energy value, I don't want my taxpayer money that has been used and will be used to be spent for that way.</p>	<p>34/08.03.01</p>
<p>C: DOE should contact Phyllis Laser of Texas for information on the problems with deep boreholes in Texas.</p>	
<p>C: The amount of waste generated from mixed oxide use seems to be a lifetime figure not an annual figure, could DOE get a specific answer and sent it to us?</p>	<p>35/09.11.08</p>
<p>C: I would suggest that in the final document this should be reworded so that the whole conclusion rather than just the bad part is stated. (Note: This comment refers to comments in the summary relating to environmental justice impacts.)</p>	<p>36/09.12.08</p>

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**01 06 00                      Comment Number 19**

The Department of Energy does not consider commercial industry a proliferation risk, as evidenced in the Existing LWR Alternative which uses commercial reactors to carry out the Pu disposition mission. 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.

**01 06 00                      Comment Number 20**

Comment noted.

**08 03 01                      Comment Number 21**

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.

**09 11 08                      Comment Number 22**

The Avoided Impacts section of the PEIS (Section 4.9) has been updated not only to include avoided human health impacts from mining, milling, and enrichment operations, but avoided air quality impacts, avoided waste generation, and other avoided environmental impacts. This section includes the displacement of uranium fuel by MOX fuel.

**09 06 06                      Comment Number 23**

A detailed analysis of potential impacts from salt drift was not presented in this PEIS because design parameters have not been developed for the alternative. Section 4.3.5.4.6 of the PEIS states that potential impacts due to salt drift may be evaluated in additional environmental documentation, if required.

**PUBLIC MEETING ORAL COMMENTS, NORTH AUGUSTA, SC**  
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Augusta Public Meeting Oral Comments - April 30, 1996

C: In the tables of background radiation (Volume I, Chapter 3 - tables for each site), the public should be given the range of background radiation for a 50 mile area. The ability to compare the person rems from background radiation to the person rems at the Savannah River Site, would show how minuscule the increase is. Not having a comparison of the numbers does not show a true reflection. This information needs to be put in context. 37/09.09.06

C: If there was not the mixed oxide fuel option, the following is what you would expect from a uranium fuel cycle: 340 cubic meters of high level waste glass, 5 million additional cubic meters of mill tailings, and 3,400 cubic meters of enrichment tails. This would be the waste generated if the mixed oxide option was not chosen. 38/09.11.08

C: Regarding the movement of the pits from Pantex to the Savannah River Site which could be surplus and strategic. It is unwise to store them together in same facility and an unwise decision to approach. 39/08.03.01

C: DOE does not want the strategic pits to be found.

C: There are a significant amounts of oxides. 40/15.00.00

Q: Can DOE clarify the minorities statement, is DOE saying that minorities will not be affected? (Note: The response provided at the meeting did not appear to fully respond to the issue.) 41/09.12.06

C: Because the minorities are affected, more public relations is needed for the minorities. Minorities should have some voice in this decisionmaking process. 42/08.02.00

C: The same was thought for Carlsbad 20 years ago. (Note: This comment came from a discussion on the deep borehole and its viability and site selection probability.) 43/04.03.00

**Morning Meeting  
 Summary Session**

C: Two things: 1) There needs to be outreach activities beyond the present outreach activities to reach the minorities and low income areas and involve them in this process. Outreach through brochures, television, and radio is not enough. Particularly downstream and rural communities. Most minorities could not take professional leave today without penalty. DOE needs to think of ways to bring in the communities affected. A strategic effort is needed to train these individuals, a base of understanding needs to be established; 2) The analyses need to take 44/08.02.00

45/08.02.00

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15 00 00 **Comment Number 24**

Comment noted.

08 03 01 **Comment Number 25**

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

01 04 00 **Comment Number 26**

Comment noted. The PEIS indicates that only the storage of all weapons-usable fissile materials (both surplus and nonsurplus) and the disposition of materials declared surplus to national defense needs are addressed in the document. The document also indicates that the Pu in commercial spent fuel is not addressed.

01 00 00 **Comment Number 27**

The purpose of the Spent Fuel Standard is to convert Pu to a form that makes it as unattractive and inaccessible as the residual Pu in commercial spent fuel. Once the Pu is converted, it is very difficult to retrieve and separate out. Any Pu separated would become weapons-usable, regardless of its isotopic content.

01 00 00 **Comment Number 28**

Comment noted.

01 00 00 **Comment Number 29**

The Department of Energy is proposing to take action on storage and disposition of weapons-usable fissile materials in the United States. Once the decision is made late this year, there will be a path forward for the storage and disposition of these materials. DOE also hopes that other nations will follow our example and seek our technical assistance.

Augusta Public Meeting Oral Comments - April 30, 1996

into consideration the low income areas affected with the combination of the Savannah River Site and area industry impacts. We (Citizens for Environmental Justice) don't want to come to more meetings without the involvement of black community. Local officials need to become more involved, especially in Georgia. It is a disservice for DOE to ask the public to wade through the size of these documents. The average citizen has a third grade intellect. We (Citizens for Environmental Justice) want facts from independent sources, not just DOE.

45/08.02.00  
cont.

C: People of color need to become more informed. We (DOE and minorities) should be working together. DOE needs more input from the minority population

46/08.02.00

C: The employees of the Savannah River Site have not been represented, they received an e-mail about this meeting yesterday. It would be nice for DOE to bring in these employees, maybe have a meeting at the site, they need to be included.

47/08.02.00

C: The material from the Savannah River Site should be moved to either Oak Ridge or Pantex. Low income or people of color are largely impacted in this area.

48/08.03.01

C: We (minorities) don't want to fall into the syndrome of not in my back yard. The information needs to be thoroughly analyzed to make sure that the risk to all humans is minimized.

49/09.12.06

Evening Meeting  
Plenary Session

Q: More precise information is needed for the deep borehole option. How will the different radioactive wastes be placed in these deep boreholes? Phyllis Laser has reported about the deep borehole process (not in relation to the Materials Disposition program) and the problems that have been encountered in Texas with them. Are there more public meetings on these subjects or is this the last? (Note: The response provided at the meeting did not appear to fully respond to the issue.)

50/04.00.00

C: The Aiken Chamber of Commerce would like to state on behalf of the Chamber of Commerce in the areas surrounding the Savannah River Site we are united for future missions. I am representing 30,000 employees from 3,000 employers in seven counties with four Chambers of Commerce from two states with one message. We want future missions for the Savannah River Site.

2/08.03.01  
cont.

C: The Building and Trades Union, second the Chamber of Commerce comments and look forward to working with the Savannah River Site in the future.

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01 06 00 Comment Number 30

The Department of Energy is proposing to take action on storage and disposition of weapons-usable fissile materials in the United States. Once the decision is made late this year, there will be a path forward for storage and disposition of these materials. DOE also hopes that other nations will follow our example and seek our technical assistance. It is important for the United States to work with Russia on disposition options to help them focus their efforts, make technology decisions, and begin implementation of disposition activities. The United States is not likely to proceed with Pu disposition unless Russia takes reciprocal action.

01 04 00 Comment Number 31

This PEIS analyzes the environmental impacts of various reasonable alternatives now and in the foreseeable future, following NEPA guidance. Impacts in the year 3000 involve a great deal of uncertainties and would be unrealistic to predict at this time.

01 06 00 Comment Number 32

The use of domestic LWRs for disposition of U.S. Pu has been analyzed in the PEIS. Disposition of Russian Pu in U.S. reactors was not considered as an option. Disposition of both Russian and U.S. Pu in CANDU reactors was considered since it was proposed by Canada as a non-weapons state.

01 03 00 Comment Number 33

Comment noted.

08 03 01 Comment Number 34

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.

PUBLIC MEETING ORAL COMMENTS, NORTH AUGUSTA, SC  
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C [Prepared statement submitted (see attached)]

Evening Meeting  
Breakout Sessions

C This program could benefit by accelerating the site disposition decision along with the storage decision. DOE should not follow in the foot steps of the Foreign Research Reactor Spent Nuclear Fuel Environmental Impact Statement decisionmaking process.

51/08.03.00

C From the long-term perspective, disposition seems to take the material from an "as is" condition to a spent fuel form. The full life cycle costs don't seem to be laid out in the document. The disposition of the material after it is used and future mortgage do not seem to be addressed in your (DOE) decisionmaking process.

52/06.01.06

53/08.00.00

C I accept this as an open issue. The unknowns here should be translated into economic or environmental impacts that get added to the analysis when they are compared to other alternatives that do not have the same amount of unknowns. (Note: This comment was made following a discussion on whether or not waste from mixed oxide fuel could be certified.)

54/09.11.06

C [Prepared statement of American Nuclear Society, Central Savannah River Section (see attached)]

Evening Meeting  
Summary Session

No summary session

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09 11 08

Comment Number 35

Impacts reported in Sections 4.2 and 4.3 of the PEIS are annual values for each of the storage and disposition alternatives. Impacts reported in Sections 2.5, 4.6, and the Summary of the PEIS are for the life of each alternative.

09 12 08

Comment Number 36

The environmental justice analysis, Section 4.5 of the PEIS, summarizes potential environmental justice impacts for all the sites so that the decisionmaker has all information available. The Summary contains a condensed description of the impacts of the available information. Based on comments received, the Summary of the PEIS was revised.

09 09 06

Comment Number 37

To better understand the natural background environmental radiation levels and the Proposed Action's incremental radiation levels, the natural background environmental radiation levels at each potential site involved in the Pu storage and disposition alternatives are presented in Chapter 3 of the PEIS. For the same purpose, the incremental radiation levels from Proposed Actions are compared to the natural background environmental radiation levels in the same area in Chapter 4 of the PEIS. In all cases, the natural background environmental radiation levels are the major source of exposure to the general population.

09 11 08

Comment Number 38

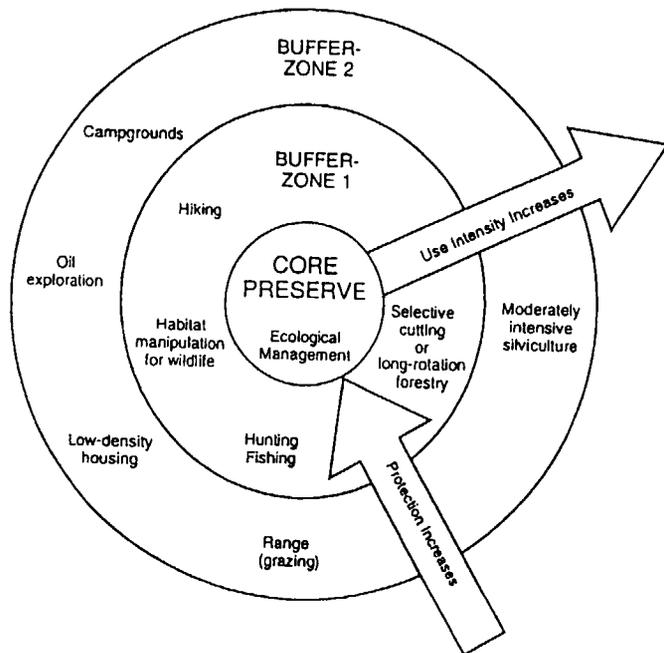
The Avoided Impacts section of the PEIS (Section 4.9) has been updated not only to include avoided human health impacts from mining, milling, and enrichment operations, but avoided air quality impacts, avoided waste generation, and other avoided environmental impacts. This section includes the displacement of uranium fuel by MOX fuel.

08 03 01

Comment Number 39

Comment noted.

MULTIPLE USE MODEL



Source: R. Noss, "Protecting Natural Areas In Fragmented Landscapes," *Natural Areas Journal* (1987), 6.

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15 00 00

Comment Number 40

Comment noted.

09 12 06

Comment Number 41

The environmental justice analysis does not assess whether minorities would be affected, but whether minorities and low-income populations would be disproportionately affected. This is accomplished by combining detailed demographics data for the areas surrounding the candidate sites with the results from the public health and socioeconomic analysis. The public health and socioeconomic analyses assess whether all of the surrounding populations would be affected by the Proposed Alternatives. These sections do not distinguish among sub-population groups.

08 02 00

Comment Number 42

All members of the public have a voice in the decisions to be made on this very important area. All comments receive equal weight and are given equal consideration. All comments are given to the decisionmakers so that good sustainable decisions are made.

04 03 00

Comment Number 43

Comment noted.

08 02 00

Comment Number 44

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.

**PUBLIC MEETING ORAL COMMENTS, NORTH AUGUSTA, SC  
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**AMERICAN NUCLEAR SOCIETY - SAVANNAH RIVER SECTION STATEMENT  
REGARDING STORAGE AND DISPOSITION OF WEAPONS-USEABLE FISSILE  
MATERIALS DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT**

My name is John Dewes and I am Vice Chairman of the Savannah River Section of the American Nuclear Society. Our local section consists of some 800 scientists and engineers in the Central Savannah River Area. On behalf of the Section, I would like to make a statement concerning the Storage and Disposition of Weapons-Useable Fissile Materials Draft Programmatic Environmental Impact Statement.

We believe that all of the long term storage options are acceptable from the standpoint of environmental, safety and health. We also believe that any of the Long Term Storage sites proposed have sufficient infrastructure to handle the engineering & design of such a facility.

We strongly support the recommendations contained in the American Nuclear Society Special Panel Report on the Protection and Management of Plutonium<sup>1</sup>, a Panel chaired by Glen T. Seaborg, who discovered Plutonium almost 60 years ago. This report recommended implementation of the reactor irradiation option for disposal of surplus weapons-useable plutonium.

The stated goal of the PEIS is to make surplus plutonium inaccessible and unattractive for use as nuclear weapons. We believe that the reactor irradiation option has several advantages over the other options in meeting this goal. It is the only option that converts weapons grade plutonium to reactor grade plutonium. This is a crucial point, because our weapons testing history indicates that, although possible, it is extremely difficult to build a successful nuclear weapon from reactor grade plutonium, and that the infrastructure required to either build a successful weapon or to purify the plutonium to weapons grade presents a tremendous barrier to diversion. The reactor irradiation option is also the quickest way to reach the goal of the Spent Fuel Standard for protection from misuse.

Jill Lytle, Deputy Assistant Secretary, in her prepared comments for the Citizens Advisory Board Plutonium Forum, indicated that she wanted a "sustainable decision", one which considers the issue in light of other decisions under review and one that garners long term public support. The decision should therefore reflect the long term need to protect the public from diversion of the materials in question. The French have recognized this issue, and are currently taking advantage of the long term protection associated with the use of mixed oxide fuel for their civilian stockpiles of plutonium.

We believe that if the mission of the DOE is to ensure a stable energy supply for our country's needs, then the energy value of the plutonium, estimated at 32 billion dollars, should be considered when selecting the preferred alternative. Plutonium is not a waste - it is the closest thing to a peace dividend our country will ever see. We also believe that the DOE needs to pay attention to scientific facts related to plutonium rather than irresponsible and irrational statements made concerning its toxicity and potential impact on the population.

We strongly urge you to select the reactor irradiation option as the most beneficial and effective method for dispositioning of weapons-useable fissile material. Thank you for the opportunity to provide comment on this important issue.

<sup>1</sup> Protection and Management of Plutonium, American Nuclear Society Special Panel Report, Glen T. Seaborg, August 1995.

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**08 02 00                      Comment Number 45**

The analyses in the PEIS take into consideration low income areas that could potentially be affected by decisions on storage and disposition of weapons-usable fissile materials.

Local officials in South Carolina and Georgia have been provided copies of the Draft PEIS, or it has been made available for their use.

**08 02 00                      Comment Number 46**

Comment noted.

**08 02 00                      Comment Number 47**

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.

**08 03 01                      Comment Number 48**

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.

**09 12 06                      Comment Number 49**

One objective of the PEIS is to identify potential impacts from each of the Proposed Alternatives so that human health risks are taken into account in the decisionmaking process. DOE is committed to implementing a program that minimizes risks to all workers and all affected populations.

**04 00 00                      Comment Number 50**

More detailed information on the borehole technology is available in the Technical Summary Report and related borehole alternative summary reports made available to the public beginning in July 1996.

**08 03 00                      Comment Number 51**

The Department of Energy is working to make decisions on these very important issues in a timely manner using all available information such that wise, sustainable decisions can be implemented in a deliberate, properly scheduled manner.

**06 01 06                      Comment Number 52**

Technical, schedule, cost, and nonproliferation analyses along with the environmental analysis will be used by the decisionmaker in determining the ROD. The technical, schedule, and cost analyses were made available for public review beginning in July 1996. The nonproliferation analysis was made available to the public beginning in October 1996.

**08 00 00                      Comment Number 53**

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.

**09 11 06                      Comment Number 54**

Appendix H of this PEIS evaluated the various Pu waste forms for potential disposal in a HLW repository to include MOX spent nuclear fuel. The environmental impacts associated with the operation of the HLW repository are not within the scope of this PEIS. The environmental impacts of constructing and operating a HLW repository would be completed in a separate NEPA analysis. This PEIS analyzes the construction and operation of a MOX fuel fabrication facility and the associated reactors in Section 4.3.5.

**PUBLIC MEETING ORAL COMMENTS, DENVER, CO**  
**PAGE 1 OF 7**

**Rocky Flats Public Meeting Oral Comments - March 26, 1996**

**Public Meeting Comments**

**Rocky Flats Environmental Technology Center**  
**Tuesday, March 26, 1996**

**Afternoon Meeting**  
**Plenary Session**

C: I am in favor of moving this material off Rocky Flats. | 1/08.03.01

**Afternoon Meeting**  
**Breakout (Combined) Session**

C: The population parameters should be kept visible in the matrix, because it is the great deterrent for not using Rocky Flats. | 2/01.05.00

C: I don't see security listed as a parameter, if we have to have 371(not identified as a building or area) and a new vault then security will have to be increased, therefore, increasing costs. I don't see maintenance and operation listed. These subjects should be considered in relation to the matrix. | 3/13.00.00

C: [Prepared statement of Kenneth Werth (see attached)]

C: In reviewing the summary I noticed that whenever transportation was dealt with it was written in the summary as, "and intersite transportation would be susceptible to cumulative impacts." I recognize that there will be transportation of these materials. I think that the public will be concerned with the security measures associated with the transport of this material. The processes used to transport the material should be displayed and explained better to the public. A better statement of the security should be addressed in the final Environmental Impact Statement to further allay the public's fears. I recommend that a general statement saying, "Security measures are in place" be added, at least, in the final document, even if most of the security measures are classified. | 4/13.00.00

Q: Is there a policy forthcoming on the movement of the material by interstate highways and roads? (Note: DOE staff present at the meeting acknowledged that they did not have an answer to this question and asked the participant to fill out an unanswered question card.) | 5/01.00.00

C: I don't think it's a good idea to give too much latitude to the standards or policies on how to deal with this material or to allow too many decisionmakers. If the United States has the capability, it should be used. | 6/01.06.00

C: Senator Nunn will speak on nuclear safety tomorrow on C-SPAN. I propose for Colorado to use interim storage of the weapons-usable material but not at Rocky Flats. A new vault for storage is not a problem but the vault should be placed on a military base for security reasons, do not place the vault at Rocky Flats. Northeast Colorado has minuteman silos for storage, why couldn't DOE use these silos for material storage? | 7/08.03.01

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**Note:** Some documents were submitted during the public meetings and were recorded as part of the minutes. The same documents, in some instances, were also submitted as hand-ins at the end of the meeting. In those cases, these documents are analyzed once, either as part of the minutes or as stand alone documents.

Listed below is the name of the individual who submitted a document as part of the minutes and the page number containing DOE's responses to the comments:

Kenneth Werth 3-1119

**08 03 01 Comment Number 1**

All storage alternatives in the PEIS analyze the removal of all weapons-usable fissile materials from RFETS for long-term storage or disposition.

**01 05 00 Comment Number 2**

The site selection process including criteria for evaluating candidate storage sites is described in Chapter 2 of the PEIS.

**13 00 00 Comment Number 3**

The security aspects of the storage and disposition alternatives will be developed further in detailed designs for the selected alternative(s).

**13 00 00 Comment Number 4**

In response to comments, DOE has expanded the transportation analysis (Section 4.4 and Appendix G) to include a more detailed description of issues involved in transportation of the weapons-usable fissile materials. This revision is included in the Final PEIS.

**PUBLIC MEETING ORAL COMMENTS, DENVER, CO**  
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**Rocky Flats Public Meeting Oral Comments - March 26, 1996**

C: Thanks to DOE Site and Headquarters personnel for coming out. I am sorry for the small turn out to today's meeting. The people in this area have become satisfied.

**Afternoon Meeting  
Summary Session**

No summary session

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**01 00 00**

**Comment Number 5**

Transportation of weapons-usable fissile materials will comply fully with applicable DOT regulations. Should new Federal regulations or policies be promulgated, DOE will comply.

**01 06 00**

**Comment Number 6**

Comment noted.

**08 03 01**

**Comment Number 7**

The Department of Energy acknowledges the commentor's opposition to storage of weapons-usable fissile materials at RFETS. All storage alternatives in the PEIS analyze the removal of all weapons-usable fissile materials from RFETS. Decisions on storage of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

PUBLIC MEETING ORAL COMMENTS, DENVER, CO  
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Rocky Flats Public Meeting Oral Comments - March 26, 1996

Evening Meeting  
Plenary Session

C: I would like to see more balance between the federal agencies and the private sector with the issue of handling hazardous waste. The more stringent requirements demanded of the private sector should be demanded of the federal agencies. During a visit to Rocky Flats it seemed the monitoring is slowing down, the plastic covering the buildings is decaying because of weather and other elements, this makes one wonder about the steps taken for monitoring. I would like to see the monitoring efforts for Rocky Flats increase and not decrease. Thank you for the opportunity to speak I think that DOE and Rocky Flats is moving forward but more work is needed.

8/15.00.00

C: I think that all nuclear countries should work toward disposition of nuclear weapons, not just the Russians. The Chinese are threatening to destroy Hawaii and California, then there is the speculation about a recent Chinese nuclear test. DOE may be moving forward but they are going too fast. The President giving away plutonium to the United Nations was not a good idea. He should be placed in jail. At present, higher importance has been placed on other trivial political issues, for example: Whitewater and Clinton's alleged affairs. The United States should place the issue of plutonium before all of them. President Clinton took the responsibility for giving the plutonium to the United Nations.

9/01.03.00

C: There are two objectives that need to be talked about tonight. One is the disposition of surplus weapons. Weapons using plutonium is a major problem. The second is the draft Programmatic Environmental Impact Statement as it is related to long term-storage. I am disappointed that the presentation by Dr. Canter did not go into the technologies that are available. There are many issues about costs, security, and safety, however, DOE needs to include health officials in monitoring and making sure there are no problems.

10/01.04.00

C: I would like to see more attention given to storage issues. The disposition of surplus weapons should be reviewed for a longer period of time, since it seems that there are still a number of questions about the technologies. Too much attention is being given to foreign policy. We need a stronger emphasis on making certain the material is stored safely and securely now, and that it can be inspected by health officials as well as safeguard agencies.

11/02.00.08

Q: How does the spent fuel standard relate to the technical alternative(s) for immobilization? The value is limited to the retrieval of the material. Is the value of placing the plutonium in a nonproliferable form greater than having to retrieve the material out of spent fuel and spending more money? (Note: The response provided at the meeting did not appear to fully address the issue.)

12/04.02.00

13/07.01.00

C: The interim storage vault decision for Rocky Flats is a wise decision.

14/08.03.01

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15 00 00

Comment Number 8

Comment noted.

01 03 00

Comment Number 9

The Department of Energy believes that the process for making decisions, including national policy considerations, will provide the basis for implementing Pu disposition actions that will encourage other nations to dispose of their Pu. The technical disposition process may not be the same for all nations.

01 04 00

Comment Number 10

One of the screening criteria DOE used for selection of reasonable alternatives to be analyzed in the PEIS is environment, safety, and health. In implementing the selected alternative, DOE will meet the high standard of public and worker health and safety, and all applicable environmental laws and regulations.

02 00 08

Comment Number 11

The PEIS provides the environmental analysis for the storage alternatives and sites in sufficient detail to provide the decisionmaker with the information to choose the storage alternative(s) and site(s). This analysis will provide the basis for long-term storage capability for the period required to reach decisions and implement actions required to achieve final disposition. Disposition alternatives are also analyzed to provide the decisionmaker with the information to choose a technology(ies). Further technology demonstrations and designs may be required before site selection and implementation of a disposition alternative.

04 02 00

Comment Number 12

Immobilization technologies meet the Spent Fuel Standard which makes Pu as inaccessible for weapons use as the residual Pu contained in commercial reactor spent fuel.

Rocky Flats Public Meeting Oral Comments - March 26, 1996

C: DOE does not have viable disposition alternatives in the draft Programmatic Environmental Impact Statement - DOE needs to focus on safety and security. Immobilization of the material is not a wise decision. The long-term storage options, glass or ceramics, should be poisoned with material other than highly hazardous materials. DOE needs to initiate a national dialogue to decide what will happen with the surplus plutonium.

15/01.02.00  
16/08.03.01  
17/05.00.08

Evening Meeting  
Breakout (Combined) Session

C: On April 30, 1996, a second meeting (near the Rocky Flats Site) will be held for comments on this document. Rocky Flats is currently missing a ton of plutonium, for which the public has not received an adequate answer as to where it went. The public has been told that DOE can explain how the plutonium became (was found to be) missing.

18/15.00.00

C: I live here and I also work for the U.S. Geological Survey. Some of our guys monitor the soils and water at Rocky Flats. I'm concerned with radiation and whether there is any safe way to dispose of this material. I don't think the No Action alternative has negligible adverse impacts. Our land, air, and water resources would be impacted. The No Action alternative seems to imply that it is safer not to touch the material. To me, the No Action alternative reflects that, if you don't do anything, you won't impact the economy, but if the material stays here it will still have a big affect on the environment and the people.

19/02.01.07

C: The No Action alternative is required by the National Environmental Policy Act; however, several ecological impacts would exist. Choosing the No Action alternative at Rocky Flats seems more viable then getting cows off public land.

20/08.03.01

C: DOE needs to consider values that are not just about economics, such as the value of a nuclear weapons-free world.

21/08.03.00

C: I like the deep borehole alternative because it puts the material totally out of the way of harming people.

22/08.03.01

C: I would not be in favor of the deep borehole alternative, the United States should get some use out of this material. I am in favor of No Action alternative. The United States needs to make sure that the world is stable before disposing of this material.

23/08.03.01

24/08.03.01

C: The deep borehole alternative would have been safe many years ago. For example, three million years ago there was a natural nuclear African reactor where daughter products did not travel far.

22/08.03.01

cont.

Q: Would heat be an issue with the deep borehole alternative, causing a dangerous situation? (Note: The response provided at the meeting did not appear to fully respond to the issue.)

25/04.00.00

CM-001

07 01 00 Comment Number 13

Cost data, along with technical and schedule data, were provided in Technical Summary Reports for disposition beginning in late July 1996. Recovery of Pu from the "much larger and growing quantity of Pu that exists in spent nuclear fuel" is outside the scope of the PEIS.

08 03 01 Comment Number 14

The Department of Energy acknowledges the commentor's support for interim storage of weapons-usable fissile materials at RFETS. However, decisions on interim storage are not within the scope of this PEIS. The scope of the PEIS is long-term storage.

01 02 00 Comment Number 15

One of the screening criteria for selection of reasonable alternatives is the feasibility/viability of the disposition technology. The reasonable alternatives analyzed in the PEIS are considered technically viable. DOE will demonstrate the chosen disposition technologies prior to their implementation.

08 03 01 Comment Number 16

The Department of Energy acknowledges the commentor's opposition to the Immobilization Alternatives. Decisions on disposition alternatives will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

05 00 08 Comment Number 17

Comment noted.

15 00 00 Comment Number 18

Accountability of materials at RFETS is beyond the scope of the PEIS. This subject is addressed in RFETS site-specific documents.

PUBLIC MEETING ORAL COMMENTS, DENVER, CO  
PAGE 5 OF 7

Rocky Flats Public Meeting Oral Comments - March 26, 1996

- C: You can institute storage that deters proliferation or theft by a subnational group. I don't think any of the options shown here tonight would stop use by the host nation, including deep borehole. 26/13.00.00
- C: I think we should reject the disposition options we have right now and continue our research in that area while making our long-term storage as proliferation-resistant as possible. 27/01.00.00
- C: The deep borehole alternative seems very "out there", and I hope it is not a likely alternative. DOE should try to get the energy out of the material. Deep borehole seems like it was thrown in there just to have another option. 23/08.03.01 cont.
- C: Political instability is a crazy reason to move so quickly. One administration should not make this decision, and it should not be made in a year, this decision is too important to rush. The United States moving quickly will not rush the Russians to dispose of their material. 28/08.03.00
- C: I would like to see a level of respect for the material, the materials seem to be larger than the storage facilities. I would like to see more emphasis on monetary issues for future generations. I am concerned that the United States will not be able to keep track of the material within the next 50 years. The United States created it and everyone needs to take responsibility for it. This is an enormous responsibility. The public should inform Congress of this real problem that needs to be dealt with.
- C: The United States can't expect that our example will be followed. The United States needs to work with all nations together, to make plutonium and highly enriched uranium harder to use. Mixed oxide fuel use could spur a plutonium economy, this might be a problem. DOE should use Rocky Flats as a research location for a suitable immobilization technique. 29/01.03.00  
30/08.03.01  
31/08.03.01
- C: It is important to develop technologies and to share these technologies with other countries, in order to be a leader. Once the United States takes the lead, the United States will have greater benefits for our society and the world. 32/01.03.00
- C: DOE cannot characterize their waste. This is a problem. 33/09.11.08
- C: I would like to thank DOE for a very clear presentation.

Evening Meeting  
Summary Session

No summary session

CM-001

02 01 07

Comment Number 19

The *National Environmental Policy Act* requires the analysis to include the No Action Alternative as a baseline to compare the potential environmental impacts. The No Action Alternative may not accomplish the purpose and need, as identified by the PEIS, which is the case for storage and disposition. However, should the No Action Alternative be chosen, ongoing actions such as material stabilization and security, health and safety improvements would continue under the current management direction to ensure that the environment and the people are protected.

08 03 01

Comment Number 20

Comment noted.

08 03 00

Comment Number 21

Comment noted.

08 03 01

Comment Number 22

The Department of Energy acknowledges the commentor's support for the Borehole Alternatives. Decision 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 23

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 24

The Department of Energy acknowledges the commentor's support for the continued storage of surplus Pu (No Action 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.

**04 00 00                      Comment Number 25**

No. As discussed on page 1-5 of the Deep Borehole PEIS Data Input Report (Direct Disposal), "heat generation by the Pu is not great enough to disturb the stagnant fluid regime at depth."

**13 00 00                      Comment Number 26**

Comment noted. The purpose of assessing the various reasonable alternatives in the PEIS is to find ways to execute the Proposed Action to meet the objectives in the President's Nonproliferation Policy.

**01 00 00                      Comment Number 27**

The Department of Energy acknowledges the commentator's support for the continued storage of surplus 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.

**08 03 00                      Comment Number 28**

The Department of Energy is not in a rush to make decisions in these very important areas of national security and proliferation concerns. DOE is following a schedule that allows the careful consideration of all relevant information, such as this PEIS, technical and economic studies, and commentators' input. Then, good sustainable decisions can be made.

**01 03 00                      Comment Number 29**

The intent of DOE's Proposed Action is not only to take the lead in Pu disposition, but also use the environmental, technical, cost, schedule, and policy analyses results obtained during the decisionmaking process to enhance the flexibility of the U.S. negotiations with Russia and other nations, so that cooperative efforts in Pu disposition can be reached through bilateral or multilateral agreements.

**08 03 01**                      **Comment Number 30**

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 31**

The Department of Energy acknowledges the commentor's support for research of a suitable immobilization technique for weapons-usable fissile materials at RFETS. However, decisions on interim storage are not within the scope of this PEIS. The scope of the PEIS is long-term storage.

**01 03 00**                      **Comment Number 32**

Comment noted. The United States and Russia currently have a joint technical working group that is assessing disposition technologies. The purpose is to evaluate and exchange information on technology already developed in each country to help the decision process and expedite implementation. A Report of the Joint Working Group issued in September 1996 considers reactor, immobilization, and borehole technologies, as well as economics and safeguards. Plans also call for conducting small-scale technical demonstrations to various disposition alternatives.

**09 11 08**                      **Comment Number 33**

The conceptual designs for the consolidated and collocated 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 enable long-term storage and/or disposal in accordance with RCRA and other applicable Federal and State regulations and DOE Orders. As the designs mature, Process Waste Assessments, which include individual waste stream characterization, will be completed. No waste stream will be generated that cannot be treated and packaged into a form than enables long-term storage and/or disposal.

Idaho Falls Public Meeting Oral Comments - April 15, 1996

Public Meeting Comments

Idaho National Engineering Laboratory  
April 15, 1996

Afternoon Meeting  
Plenary Session

C: I am pretty familiar with the Governor's Agreement and it does not refer to all the plutonium in Idaho as waste. 1/01.00.00

C: In reference to the eradication of the plutonium. I understand that material from the first splitting of the atom is still in its original state. I hear proposals but no solutions. Like the Waste Isolation Pilot Plant where billions are being spent, and it is still not ready. 2/12.00.00

C: [Prepared statement of John Commander (see attached)].

C: I have discovered how to change matter through electron donors. An implosion machine emits protons, but not gamma or x-rays. I do not have the ability to check the emission of alpha or beta rays. I will submit the photographs taken which show this through the blue balls on the picture. The implosion machine can dissolve materials with no residue. I am an expert in Plasma Particle Physics. I can create new DNA in persons enabling them to become younger. When you add electron particles materials will change. I will also submit my carbon formula which violates the second law of thermodynamics. I have constructed a cyclotron which will get rid of plutonium-239 and waste. Through this process the plutonium and waste would be placed in another time phase. If cells in the human body can be restructured, then why can't it work on metals and restructure solid matter? With my procedures hair would begin to grow back. It has worked for me. As individuals we are programmed to believe what we believe until proven differently. I have documentation for everything I have told you today. 3/14.00.00

Afternoon Meeting  
Discussion Session

C: At present there is ongoing construction for two additional lanes going into the Idaho National Engineering Laboratory. These additional lanes will relieve the transportation burden placed on lanes now. (Note: This comment follows a discussion in the PEIS analysis of impacts of level of service of local roads.) 4/09.08.03

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**Note:** A number of documents submitted during the public meetings were recorded as part of the minutes. The same documents, in some instances, were also submitted as hand-ins at the end of the meeting. In those cases, the documents are analyzed once, either as part of the minutes or as stand alone documents.

Listed below are the names of the organizations/individuals who submitted documents as part of the minutes and the page numbers containing DOE's responses to the comments:

American Nuclear Society, John Commander	3-40
State of Idaho, Governor Philip E. Batt	3-909
Steve Herring	3-363

01 00 00                      **Comment Number 1**

The *National Environmental Policy Act* requires that DOE consider a range of reasonable alternatives for the storage and disposition of weapons-usable fissile materials. INEL and five other DOE sites are evaluated in the PEIS as potential storage sites. In addition to site evaluations, the document considers a range of storage approaches such as retention or off-site shipment of current inventories.

The final decisions on materials storage will be based on programmatic cost and policy considerations, as well as environmental analyses. Consistent with efforts to foster the cooperative spirit that we want to see continue to emerge from our agreement with the State of Idaho, DOE will not make any decision regarding the storage of weapons-usable fissile materials at INEL without first discussing the matter with the State of Idaho.

12 00 00                      **Comment Number 2**

Comment noted.

14 00 00                      **Comment Number 3**

Comment noted.

Comment Documents  
and Responses

PUBLIC MEETING ORAL COMMENTS, IDAHO FALLS, ID  
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- C: Transport of material would have to be in compliance with Department of Transportation regulations and maximize the interstate system. All interstates in Idaho go across sovereign nations
- C: As defined in the Programmatic Environmental Impact Statement, nonproliferation is the peaceful, beneficial reuse of the materials whenever possible. I don't think the United States can get other countries to stick this material in a hole, because they will want to use it. The United States needs to lead by example through the way it deals with the material. | 5/01.06.00
- C: It would be helpful to weight this issue (*latent cancer rates*) to be a zero as far as the danger to the public. If the ranking changes the issue should be reevaluated. | 6/09.09.08
- C: There is a problem with the (*latent cancer*) rates and numbers in the document showing three decimal places, this appears to make the rates and numbers more precise than they are. | 7/09.09.08
- C: Personal cancers are difficult to accurately estimate. The risks from background radiation are often more dangerous than the true impact of proposed activities. The way they are presented in the document could be misleading. | 8/09.09.08
- C: In a magazine story, Dr. Unman discusses radioactive doses, he sited that the public is used to living in a radioactive environment. He asks, have you gotten your dose today? However, studies of cancer cases through the United States, have looked at cancers caused by radiation. The results have seemed to be analogous with the corn belt and not near nuclear facilities.
- C: I thought that an environmental impact statement was to look at impacts of the options that will be used, not at worst case impacts of options that will never be used. This is a waste of time and money if it doesn't reflect reality. | 9/08.00.00
- (Note: The following two statements were made during a discussion about plutonium and spontaneous combustion between meeting participants.)
- C: There was a fire in a glove box at Rocky Flats which burnt a facility down.
- C: There were two fires at Rocky Flats that occurred about 10 years apart, but the facilities did not burn down.
- C: Greenpeace is telling half-truths when they say that plutonium is dangerous. Plutonium is the most hazardous when it is in weapons form; we're trying to get it out of weapons, and that's good. Botulism is more dangerous than plutonium. The United States is talking about 900 tons of highly enriched uranium and 200 tons of plutonium, approximately 1000 tons total. My cost figures estimate the material at \$500 a gram, which would equal approximately that one-half | 10/08.03.01

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09 08 03                      **Comment Number 4**

The Department of Energy acknowledges the commentor's observation and has revised text in Section 4.2.3.8 of the Draft PEIS as necessary.

01 06 00                      **Comment Number 5**

Comment noted.

09 09 08                      **Comment Number 6**

Potential human health impacts from the Proposed Actions are calculated and documented in this PEIS as required by NEPA. To inform the public and the decisionmakers, all latent cancer risks associated with the Proposed Alternatives are presented in the PEIS even if the risks are very small. The ranking or decisionmaking analysis for the alternatives is based on various factors including the human health impacts. Since the human health impacts are very small for all alternatives, it will not affect the ranking or decisionmaking analysis.

09 09 08                      **Comment Number 7**

In order to provide information to the public and decisionmakers, the human health risk and latent fatal cancers are presented in the Draft PEIS even though they are very small numbers. To aid the public understanding of the risk numbers, an explanation of how to interpret these risk numbers is also included in Section M.5. Due to the inherent uncertainties associated with risk assessment, the parameters related to human health risk assessment should be kept to two significant digits. Risk numbers that are more than two significant digits were modified in Chapter 4 of the Final PEIS. Presenting more significant digits does not affect the decisionmaking process, but artificially grouping ranges of numbers may disguise significant discriminators.

Idaho Falls Public Meeting Oral Comments - April 15, 1996

trillion dollars that have been spent on weapons. Placing this material in the ground is irresponsible considering the money that has been spent.	10/08.03.01 cont.
C: The total amount of plutonium we are discussing could be stored under the table. However, few people understand critical mass, why the material can't be stored together. The size of a hockey puck is enough (8 oz.) material to make a nuclear warhead. Botulism kills now, whereas plutonium will kill forever and ever. Plutonium can accelerate as does anything with a nuclear charge. DOE should explain critical mass, and how it is being dealt with.	11/09.09.08
C: 22.4 kilograms of material placed together can obtain critical mass. The only way to get rid of it is to burn it. Other countries will believe that the United States is stupid if the material is placed in a hole. This information needs to be taken to Secretary O'Leary.	10/08.03.01 cont. 12/08.03.01
C: DOE is talking about a generic hole, however, when DOE begins site characterization on this generic hole all hell will break loose, as what happened with the Waste Isolation Pilot Plant and Yucca Mountain. People provide answers with no solutions.	13/01.02.00
C: During the Cold War, the United States and Russia built up a weapons stockpile. The United States should deal with this in a responsible manner now so that our grandchildren don't have to deal with our stupidity.	14/01.06.00
C: The document summary provides too much information on environmental impacts, for example, the tables give too much detail. It doesn't answer questions relating to critical mass, amounts of plutonium, and the specific facilities that would be used. DOE needs to summarize all of the document not just the environmental impacts.	15/01.00.00
C: There is a political party who wants to get rid of DOE. I don't see how politics can be divorced from the decision process.	16/01.06.00
C: It was implied that the decision made would be political, not technical. Upper management of DOE needs to stand true to the oath they have taken and make decisions based on technical information. I would like to know which way you think the decision will be made.	
C: The public needs to be educated on critical mass. Only a small amount of plutonium can be burned at once. Twelve years to get something on line is out of the question. The United States economy is shot. Isn't it true that United States economy is ruled by politics?	11/09.09.08 cont.
C: I don't know if I will be around in fourteen years to see if the decision is made to open Yucca Mountain. I don't think DOE will come up with any ideas in 40 to 50 years since nothing has been done since 1955.	17/12.01.00

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09 09 08 Comment Number 8

To better understand the potential health impacts from background environmental radiation and the Proposed Actions, the natural background radiation levels occurring at each potential site being considered as a Pu storage and disposition alternative are presented in this PEIS. These site background radiation levels were compared to the natural background radiation in the same area.

08 00 00 Comment Number 9

The Department of Energy under NEPA is required to analyze the environmental impact of all reasonable alternatives. DOE used a formal screening process, plus input from a NAS Report, to develop the list of alternatives. This list was then discussed with the public during the scoping process. Modifications and changes were made as a result of public comment.

08 03 01 Comment Number 10

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.

09 09 08 Comment Number 11

Critical mass is explained in the PEIS's *Glossary* in Chapter 7. The PEIS does present the potential environmental and health impacts for the Proposed Alternatives which includes analyzing criticality accidents.

08 03 01 Comment Number 12

The Department of Energy recognizes the commentator'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.

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C: The United States likes to rename things, so if DOE is eliminated, it will probably just be renamed or be given to the state level of government. The United States doesn't give solutions to problems. 18/01.00.00

C: Personally, I am concerned about human safety. Argonne National Laboratory-West has proven to have safe storage. It would be in the best interest of the state, nation, and economy to continue with this project. 19/08.03.01

**Afternoon Meeting  
Summary Session**

No summary session

**Evening Meeting  
Plenary Session**

C: There is the need to have an alternative that will store the material. That would enable the United States to use the material again for weapons, if needed.

C: [Prepared statement of Idaho Governor's Office, Bob Ferguson (see attached)]

C: [Prepared statement of Dr. Steve Herring (see attached)]

C: I agree with the intent of the disarmament agreement with Russians, which would see highly enriched uranium and plutonium unusable for weapons, as soon as possible. It is easy to decide what to do with the material in the short term, if DOE could decide on the final disposition chosen. Those individuals who worked with this valuable material hate to see it thrown away. We would prefer to see it used in reactors. I am sure that the disposition alternatives are technically safe; however, the deep borehole alternative seems expensive. I would not like to see underground disposal interfere with disposal of commercial spent nuclear fuel. Don't downgrade Uranium-233, it could be valuable in space reactors. 10/08.03.01  
cont.  
12/08.03.01  
cont.

**Evening Meeting  
Discussion Session**

Q: With regard to disposition or immobilization of the material-would that be done now or down the road? DOE should not preclude future use of the material. Plutonium has real value, the taxpayer has paid a lot of money for it and any value from the material should be given back to the taxpayer by energy or power. Deep borehole and immobilization is not an option. If DOE 20/07.01.00  
10/08.03.01  
cont.  
21/08.03.01

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**01 02 00                      Comment Number 13**

Comment noted.

**01 06 00                      Comment Number 14**

Comment noted.

**01 00 00                      Comment Number 15**

Based on public comments, the Summary was revised.

**01 06 00                      Comment Number 16**

This PEIS addresses the environmental impacts of the reasonable alternatives for DOE's Proposed Action. Analyses of cost, schedule, technical, and Nonproliferation Policy impacts are described in separate documents to support DOE's ROD.

**12 01 00                      Comment Number 17**

Comment noted.

**01 00 00                      Comment Number 18**

Comment noted.

**08 03 01                      Comment Number 19**

The Department of Energy acknowledges the commentator's support for additional missions at INEL. 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.

Idaho Falls Public Meeting Oral Comments - April 15, 1996

hydrides the material the facility should be at the storage location (Note: The response provided at the meeting did not appear to fully address the issue.)

C: Those processes should be done in an area with a significant buffer. Idaho National Engineering Laboratory has that buffer and the Snake River can be environmentally protected. The decision should be made based on technical information. 22/08.03.01

C: A small amount of the material should only be blended down to 20% for research reactors; it may be a help to University reactors to give them some of the 20% fuel for education purposes. 23/15.00.00

C: The same technology can be used to burn plutonium as to breed it, and because of this we seem to cater to certain interest groups that think we are going to create more plutonium. 24/14.00.00

Q: Did DOE consider giving the fuel to other contractors beside Canada? (Note: The response provided at the meeting did not appear to fully address the issue.) 25/01.03.00

C: With regard to disposition or immobilization of the material would that be done now or down the road. DOE should not preclude future use of the material. Plutonium has real value, the taxpayer has paid a lot of money for it and any value from the material should be given back to the taxpayer by energy or power. Deep borehole and immobilization is not an option.

C: A lot of people don't have electricity. By DOE not using the Integral Fast Reactor, The United States is giving up our technology to other countries. The Integral Fast Reactor would destroy in plutonium. Nonproliferation is not achieved if the plutonium is not destroyed. True nonproliferation means destruction of the material. 26/01.05.00

C: If the Integral Fast Reactor was chosen, the United States could use the fuel and have 10,000 years of world energy. If the environment would not be impacted, then why not take the material and reprocess? The amount of waste would be smaller. Our country could be taken over in 100 years. How our fuel is dealt with would be very important if this happened and the material was not placed in a nonproliferable form. There are 33 countries with light water reactors generating plutonium. Electroprocessing creates the same non-retrieval barrier for the material as glass, however the electroprocessed material would be harder to retrieve. DOE should use that process to make the material nonproliferable. Continuation of scientific research should be foremost, not political reasoning. 27/08.03.01  
26/01.05.00 cont.

C: The current administration is opposed to nuclear power. I am concerned that final Programmatic Environmental Impact Statement will be released in September, with the Record of Decision released in November. DOE needs to address the issues brought up during these meetings now and have the final Programmatic Environmental Impact Statement sent out after the election. With that schedule another administration will make the decision. President Clinton 28/08.03.00

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**07 01 00                      Comment Number 20**

Generally, the goal is to complete disposition within 25 years of the ROD. The storage decision will be for long-term storage up to 50 years. Schedule data, along with technical and cost data, were provided in a Technical Summary Report for storage and disposition in late July 1996.

**08 03 01                      Comment Number 21**

The Department of Energy acknowledges the commentor's opposition to the 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.

**08 03 01                      Comment Number 22**

The Department of Energy acknowledges the commentor's support for additional missions at INEL. 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.

**15 00 00                      Comment Number 23**

Comment noted.

**14 00 00                      Comment Number 24**

During the screening of alternatives for inclusion in the PEIS, a Reactor-Burning concept was evaluated involving a variation of the Integral Fast Reactor concept. However, this concept, which would use a reactor fuel cycle design still under development, would be more costly and less timely than other mature reactor options. The development program was recently terminated by the Administration and Congressional action. Since Pu disposition can be accomplished using existing technologies, there is no justification for developing this advanced technology for Pu disposition.

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Idaho Falls Public Meeting Oral Comments - April 15, 1996

wants to limit nuclear power.

C: I have visited the Argonne National Laboratory-West; its electroprocessor is working now. This technology could be spread throughout the country rapidly. Technical issues should come before political issues.

29/01.05.00

C: Third World Countries need power - maybe the United States could build a reactor to show it can be done and licensed. The United States would show the Third World Countries by leading. It is possible that the United States could export the reactor design and fuel, so they will stop using fossil fuel and damaging the environment.

30/01.03.00

C: Secretary O'Leary has said that the chance of Yucca Mountain opening is 50/50. The chance of the deep borehole option occurring now or in my child's future is zero. Also, the Waste Isolation Pilot Plant is not open, and with that most of the underground technologies have been exhausted. DOE keeps saying that some technologies require long schedules, but two out of the three proposed options are still not available. Completion of one of the options listed will probably take 40 to 50 years.

31/12.00.00

C: There is no time to finish the Integral Fast Reactor when it will produce 10,000 years of energy with plutonium. It may be two decades before the Integral Fast Reactor would be completed, during which the United States will be using up the fossil fuels available. There are a lot of pieces that need to be put together. With the plan of having electric cars in the future, the United States needs to be prepared. DOE might as well save the material or burn it. How does this tie in with the Integral Fast Reactor and its ability to make 10,000 years of energy? No one has been killed in 10,000 years by reactors, even in Russia only 200 persons have died. Which still makes reactors the safest energy source. DOE does not have America's interest at heart.

C: The State of Idaho supports the Integral Fast Reactor and is not willing to let it die. The Governor's comments state that this disposition option is in place. DOE would miss out if they didn't address restoring the Integral Fast Reactor to facilitate disposition of the material. The Integral Fast Reactor is closer to burning the material than any other reactor.

32/01.04.00

Evening Meeting  
Summary Session

No summary session

IM-001

01 03 00

**Comment Number 25**

The Department of Energy also considered the possibility of fabricating and burning MOX fuel in European facilities. This option was eliminated since the capacities of European fabrication facilities and reactors are being balanced to minimize accumulation of civilian Pu from reprocessing. If U.S. weapons Pu were introduced into the European fuel cycle, it would upset this balance and increase the accumulation of civilian Pu. While utilizing European facilities is not a long-term solution, it may be able to support the U.S. disposition mission in the short-term. Until an equilibrium is achieved among European reprocessing, fuel fabrication, and reactor facilities, there may be some excess MOX fabrication capacity available that could be utilized for a limited period to fabricate MOX fuel from U.S. weapons Pu for use in U.S. reactors. In the event that the Reactor Alternative using MOX fuel is selected in the ROD, this excess capacity could help get disposition efforts in the United States underway pending startup of a domestic MOX fuel fabrication facility.

01 05 00

**Comment Number 26**

The Integral Fast Reactor technology would require a significant amount of time and money to implement, complete technology development and demonstration, and build necessary facilities. Destruction of all Pu would take hundreds of years because of the many cycles of reprocessing and reintroduction into liquid metal reactors. Use of existing reactors can place the Pu into a form that makes it as difficult to use in a weapon as the Pu in commercial reactor spent fuel.

08 03 01

**Comment Number 27**

The Department of Energy acknowledges the commentator'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.

IANS Statement Re: Storage and Disposition of Weapons-Usable Fissile  
Materials Draft Programmatic Environmental Impact Statement

My name is John Commander. I am Vice-Chair of the Idaho Section of the  
American Nuclear Society, and represent some 900 members located predominately  
in Southeast Idaho. On behalf of the section, I would like to make a statement  
concerning the Storage and Disposition of Weapons Usable Fissile Materials  
Draft Programmatic Environmental Impact Statement.

We believe that all of the long term storage options are acceptable from the  
standpoint of safety and environmental impact; however, the option for the  
Collocation of the Plutonium and Highly Enriched Uranium receives our support  
as the most favorable alternative. We also believe that any of the Long Term  
Storage sites proposed could be designed to be acceptable.

We believe that the Plutonium Disposition Alternatives which involve disposal  
with out utilization as fuel for use in reactors are unacceptable. We support  
the recommendations contained in the ANS Special Report on the Protection and  
Management of Plutonium ( Special Panel Report, Glen T. Seaborg August 1995).  
This report recommended implementation of the reactor irradiation option for  
disposal of surplus weapons-usable plutonium.

The Special Panel Report also recommended continuation of development work on  
reprocessing and breeder ( Integral Fast Reactor ) as a promising approach to  
proliferation-resistant fuel cycle. We strongly support this recommendation  
also.

Sincerely,  
*John Commander*  
John Commander

170 Fieldstream Lane  
Idaho Falls, ID. 83404

33/08.03.01

10/08.03.01  
cont.

34/14.00.00

IM-001

08 03 00

Comment Number 28

Comment noted.

01 05 00

Comment Number 29

Comment noted.

01 03 00

Comment Number 30

Comment noted.

12 00 00

Comment Number 31

At this time, DOE is continuing efforts to characterize the Yucca Mountain  
site for receipt of HLW and efforts to open the WIPP site. If these efforts are  
unsuccessful, the United States will identify other sites and/or approaches for  
accommodating waste from materials disposition and other DOE activities. In  
the event that sites cannot be identified in time to receive waste, safe  
temporary storage arrangements will be made pending availability of a final  
waste acceptance site.

01 04 00

Comment Number 32

Comment noted.

08 03 01

Comment Number 33

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

14 00 00

Comment Number 34

Comment noted.



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Testimony regarding the  
Draft  
Fissile Materials Disposition  
Programmatic Environmental Impact Statement

Monday, April 15, 1996  
Idaho Falls, Idaho

As the Governor of the great state of Idaho, I appreciate the Department of Energy's efforts to come to grips with the by-products of the Cold War. To those of you who have traveled great distances to attend today's meeting, I extend to you my warm greetings.

This nation entered the nuclear age fifty years ago with big dreams, high hopes and in the case of nuclear weapons, horrible fears about what might some day be unleashed. At the same time we entered in the nuclear era, we were ill prepared for what to do with the final waste streams that come about through nuclear activity.

The DOE is addressing these issues now through multiple environmental impact statements. Not all of them affect Idaho, but because the decisions DOE will make on the Draft Fissile Materials Disposition Programmatic Environmental Impact Statement will impact our state, it is important that DOE listen to what Idahoans have to say. Many fear what your decisions will do to the environment. Others fear what it will do to their pocketbook. Whatever decisions are made, it is important that DOE listen.

Although the EIS process DOE has undertaken is difficult and fraught with a certain degree of inevitable controversy, this process is an opportunity to peacefully decide what to do with what are essentially surplus war materials. Rather than using them in war, we now have the opportunity to calmly and rationally decide what to do with these surplus Cold War materials.

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The products under consideration in the Draft Fuel Materials Disposition Programmatic Environmental Impact Statement include plutonium and highly enriched uranium. As a nation, we must do something with these materials to make them safer and protect ourselves from the potential for misuse.

Under the draft PEIS, DOE officials are currently considering several options regarding what to do with these by-products. The draft PEIS identifies three long-term storage alternatives for plutonium and highly enriched uranium: upgrade facilities at multiple sites; consolidate the nation's plutonium at a single site; and co-locate plutonium and highly enriched uranium. The six candidate storage sites are: the Idaho National Engineering Laboratory, Hanford Site, Nevada Test Site, Oak Ridge Reservation, Patuxent Plant and the Savannah River Site.

Let me make it perfectly clear to the DOE, media and citizens of Idaho: bringing nuclear waste material to Idaho for long term storage is not acceptable by either the letter or the spirit of the historic agreement reached last year.

Under the terms and principles of our agreement, transuranic waste material is specifically prohibited from entering Idaho until a treatment facility for that material is constructed and operating. Once the transuranic material is brought to Idaho, it has six months to be in Idaho before treatment and it must leave within six months after treatment. Transuranic waste is that waste contaminated with plutonium and other radioactive elements.

The state of Idaho considers any plutonium material brought to Idaho to be transuranic waste and therefore covered under the agreement.

Plutonium is a transuranic material because it contains more than 100 nanocuries of alpha-emitting transuranic isotopes with half-lives greater than 20 years per gram of waste. Surplus plutonium is a waste because it is DOE's stated purpose and intent to treat this material so that it can be made proliferation resistant pending its ultimate disposition in a geologic repository. This EIS proposes to treat the plutonium by vitrification or MOX fuel fabrication. If DOE proposes to construct and operate either of these treatment facilities in Idaho, then Idaho will hold DOE to its obligation under the agreement — treatment within six months of receipt and shipment out of Idaho within six months of treatment.

Furthermore, if DOE decides to bring either plutonium or highly enriched uranium to Idaho for long term storage rather than treatment, Idaho will regard this as a direct violation of the spirit of our agreement. Both federal parties and Idaho agreed to act in good faith to effecuate and fully support this agreement. There was no doubt that the

<sup>1</sup> United States v. Philip E. Best, Civil No. 91-0054-S-ETL, Oct. 17, 1993, definition section cites "transuranic waste as "defined as set forth in Spent Nuclear Fuel EIS, Volume 2, Appendix E.

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PUBLIC MEETING ORAL COMMENTS, IDAHO FALLS, ID  
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purpose of the agreement was to set the ground rules for how DOE would bring radioactive materials into Idaho and when these materials would leave.

Our agreement does allow DOE to request a modification of the agreement if a National Environmental Policy Act (NEPA) analysis results in the selection of an action that conflicts with the terms of the agreement. If Idaho doesn't agree with DOE, the court can decide whether DOE's proposal is reasonable. In this case, shipping large quantities of plutonium and highly enriched uranium for storage in Idaho makes little sense and is clearly unreasonable given DOE's other options.

Idaho has just 4.5% of the nation's plutonium and 10.1% of the nation's declassified highly enriched uranium. In contrast, Tennessee has 66.4% of the declassified highly enriched uranium and Texas has 66.4% of the nation's plutonium.<sup>2</sup> It would seem to make sense that if DOE wants to simply consolidate its holdings of these materials, there are places other than Idaho that are better suited for this purpose.

Idaho is no longer a nuclear dump site. Again, if DOE merely wants to bring plutonium and highly enriched uranium to Idaho for "long term storage" in violation of the agreement, that is unacceptable.

Idaho must be and will be ever vigilant. Under my administration, I assure every Idahoan that we will continue to hold INEL to the very highest standards. As part of that effort, the state of Idaho's Division of Environmental Quality recently issued 61 notices of violation at INEL.<sup>3</sup> Protecting Idaho's environment is an absolute must.

Having said that, let me add this. My administration still seeks new jobs and new missions for INEL. Just recently I came out in strong support of medical radioisotope production at Idaho's National Engineering Laboratory. I will continue, with others, including Idaho's Congressional Delegation, to seek new projects that provide quality jobs for eastern Idaho. I mention this because I believe that INEL scientists and engineers are some of the very best in the nation. I am confident that they can safely handle any material sent to them.

Radioactive material carries with it a lot of emotion. I believe the state's position addresses the fears of many. We want INEL to be clean. We want your operations to be safe. We want to see nuclear waste go to safe geologic repositories for permanent disposal. We also want good jobs at INEL, but simply bringing nuclear material to Idaho for indefinite "long term storage" does not achieve that objective and does not meet the spirit or letter of the agreement that was reached last year.

<sup>2</sup> Department of Energy National Governors' Association handout, "Department of Energy Nuclear Materials and Waste Status and Pending Decisions, March 19, 1996." Relevant graphs attached.

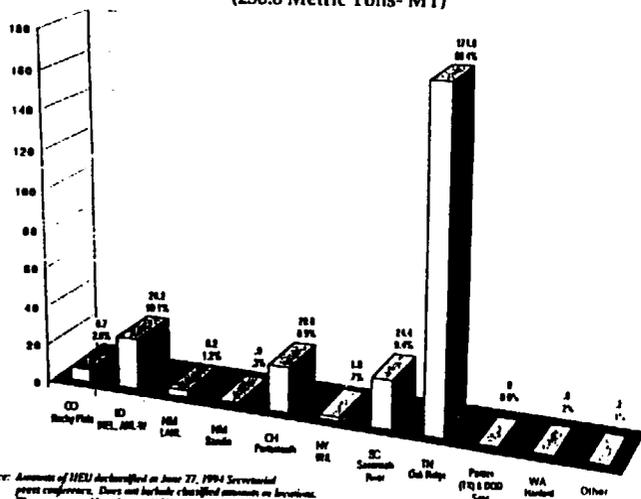
<sup>3</sup> For more information, contact Dave Pisarski, Bureau Chief, Enforcement Bureau, Idaho Division of Environmental Quality, 208-373-0502.





## Partial Inventory - Highly Enriched Uranium

(258.8 Metric Tons- MT)



Source: Amount of HEU discharged at June 27, 1994 Savannah River conference. There are further classified amounts in locations.  
Note: The amounts and locations of HEU at Pantex (TX) and INEL are classified.  
At the February 6, 1996 Press Conference, it was announced that there is 16.7MT of HEU at Pantex plus planned decommissioning. That all of the 16.7MT is currently at Pantex.

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Statement by  
Dr. Steve Herring  
798 Call Avenue  
Idaho Falls, Idaho 83402

April 15, 1996

1. A critical requirement for any alternative is that it meet more than the weapons-grade material cannot be chemically fabricated into a weapon for countries to use. The NAS study established the "spent fuel standard" as a criterion by which to judge disposition alternatives. According to the spent fuel standard, the plutonium in a form from which it is difficult to recover as the plutonium contained in spent LWR fuel. One intended way of meeting the "spent fuel standard" is to incorporate the plutonium in LWR fuel and then to use that fuel in high burnup.
2. Our priorities must be to advance a safe, technically sound and proliferation-resistant process first, a facility responsible alternative second and, only as a third priority, to advance alternatives located at the INEL.
3. The environmental impacts of the various alternatives are difficult to sort out of the EIS Summary Document without applying much more time and study (quality of the main EIS documents). They are not likely to exceed significantly the impacts of continuing-going activities.
4. Disposal of the Pu through burnup use in commercial power reactors provides a "Peace Dividend" for weapons-grade materials. Commercial reactors already produce considerable plutonium (concurrent with burning it up in the fission process). A number of commercial nuclear plants including WPPSS have expressed an interest in using weapons Pu in their plants as a way to lower overall fuel cost.
5. The MOXIC fuel fabrication facility would likely be built where the Pu storage is consolidated. It is appropriate to support the INEL for this use.
6. According to the EIS, some forms of Pu may not lend themselves to MOXIC fabrication. For these forms, the INEL should play a major role, either through the ANL-W EM process or via one of the other non-fabrication alternatives. If the material is shipped out of Idaho in a timely manner, it would meet the terms of the 1995 Waste Agreement.

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Las Vegas Public Meeting Oral Comments - March 28 & 29, 1996

**Public Meeting Comments**

Nevada Test Site  
March 28 & 29, 1996

Evening Meeting - March 28, 1996  
Plenary Session

C: The United States always says that the government will protect you, but what about the Western Shoshone Treaty? Is the government going to take the Shoshone land again and make the Shoshone come to DOE for our land. The deep borehole alternative will contaminate the soil and water table, no matter what DOE thinks. Why does DOE ignore the land owners of the Nevada Test Site and Yucca Mountain? Why are there no Shoshone at the meeting tonight? I have been saying for years that DOE ignores the Native people throughout the world. DOE only brings destructive material to our lands. The Shoshone want living things to continue growing, we (Shoshone) are tied to the land. I hope you (DOE) are listening.

1/09.07.02

**Evening Meeting  
Storage and Disposition Breakout Session 1**

C: It is my understanding that the Canadians are studying the draft Programmatic Environmental Impact Statement but no decisions have been made on whether they will agree on the CANDU option.

2/01.03.00

C: Basic fundamental science is missing from this issue, specifically colloid chemistry. DOE doesn't understand this process. All isotopes can be destroyed in the deuterium reactors. It has been done, however this was not listed. Colloid chemistry stops any idea of transporting or storing the material. Any material DOE places in the ground, the public will eventually drink. Again, the basic science is missing.

3/06.05.08

C: That is not true. (Note: This comment was made by a participant in response to DOE's statement that ... "Yucca Mountain is being considered for spent nuclear fuel, not for storage of surplus fissile materials.")

C: The underground storage of material is prohibited in any area. Underground storage can not be done safely and securely.

4/02.00.08

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09 07 02

**Comment Number 1**

The Department of Energy understands that the Western Shoshone have disputed the U.S. Government's ownership of lands on NTS and Yucca Mountain. The land ownership issue has been brought to court several times.

The Department of Energy seeks input from Native Peoples through the NEPA process and has instituted, and follows, the DOE *American Indian Policy*, as well as regulations under *American Indian Religious Freedom Act*, *National Historic Preservation Act* of 1966, and *Native American Graves Protection and Repatriation Act* that require such input. For this PEIS, scoping meetings were held for the public to discuss and influence the course of the project prior to document preparation. Also prior to document preparation, an NOI was published in the *Federal Register*. Applicable Federally recognized tribes were sent the NOI, a notification of the scoping meetings, and the Draft PEIS. After the Draft PEIS was issued, public meetings were held, and applicable Federally recognized tribes received advance notice of these meetings and the open public comment period.

01 03 00

**Comment Number 2**

The Department of Energy has received formal support for the concept of MOX fuel use in the CANDU reactor from the Canadian Government. However, should this alternative be selected for implementation, formal agreement between the two governments will be reached.

06 05 08

**Comment Number 3**

There are no chemical processes, colloidal or otherwise, capable of destroying Pu. A range of Reactor Alternatives was considered by DOE, including ones capable of destroying large fractions of the Pu inventory (deep burn reactors). All Deep Burn Reactor concepts were too immature to be considered technically viable for this mission.

02 00 08

**Comment Number 4**

Comment noted.

**Las Vegas Public Meeting Oral Comments - March 28 & 29, 1996**

- |   |                    |
|---|--------------------|
| <p>C: I disagree with the statement that Yucca Mountain is not considered, when all of the storage alternatives except deep borehole need to use a repository. There are hazy lines between long-term storage and disposition.</p>  | <p>5/01.00.00</p>  |
| <p>C: Until another repository option is made available, Yucca Mountain is the only repository where the material could be stored.</p>  | <p>6/12.01.00</p>  |
| <p>C: DOE talks about burying the material in Yucca Mountain and hauling the material to the Nevada Test Site. I am concerned about transportation safety. How dangerous is the material on the roadways? The United States has already wiped out the Shoshone, how many lives is DOE going to take before a stop is put to this? What is the transportation mechanism that will be used for this material; rail, air, or highway? DOE employees are brainwashed.</p> | <p>7/10.00.00</p>  |
| <p>C: DOE is stating that waste is not a weapon, but it could be used as a weapon if put in the environment. In the future the material will be and must be eliminated and not placed in the ground. The technology was developed 50 years ago, the United States needs to address our citizens and our future, not Russia or other countries.</p>  | <p>8/01.00.00</p>  |
| <p>C: The most dangerous material is slated for storage at Yucca Mountain. If there is not a way to securely immobilize the material, it should be placed in an area where the distance between the material and the population is large enough to not affect the population.</p>   | <p>9/12.00.00</p>  |
| <p>C: DOE wants to solve the problem but it's the politicians that are deciding where the material should go.</p>   | <p>10/01.05.00</p> |
| <p>C: Initially, the radiation barrier was the factor for using the spent fuel standard. The spent fuel standard definition being used by DOE is not the same as the National Academy of Sciences wording.</p>  | <p>11/01.05.00</p> |
| <p>C: What the National Academy of Sciences was looking at as the primary barrier was radiation.</p>  | <p>12/01.03.00</p> |
| <p>C: The National Academy of Sciences is talking about coming the Russians into using the materials as waste.</p>  | <p>13/14.00.00</p> |

**01 00 00                      Comment Number 5**

Consideration of Yucca Mountain as a potential geologic repository site is a national policy prescribed by Congress in the NWPA Amendment. This PEIS analyzes the environmental impacts of surplus Pu storage and disposition alternatives, not the impacts of siting and operating a geologic repository. Whether or not Yucca Mountain is the site has little relevance to the comparison of alternatives when the same geologic repository is being used.

**12 01 00                      Comment Number 6**

Comment noted.

**10 00 00                      Comment Number 7**

The stringent Federal regulations require the use of packaging that cannot release dangerous quantities of radioactive material in any credible accident conditions; therefore, the health risks for transporting these materials by either truck or rail are low. The potential health risks from transporting materials associated with the proposed storage and disposition alternatives are evaluated and presented in Section 4.4 and Appendix G of the PEIS. However, there has never been an accidental release of radioactive material which has caused injury or death during more than 40 years of DOE shipment activity.

**01 00 00                      Comment Number 8**

Comment noted.

**12 00 00                      Comment Number 9**

Comment noted.

PUBLIC MEETING ORAL COMMENTS, LAS VEGAS, NV  
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Las Vegas Public Meeting Oral Comments - March 28 & 29, 1996

C: DOE should look at the options versus the spent fuel standard. With mixed oxide fuel being the spent fuel standard, DOE seems to be modifying the definition. DOE should look at retrieval of material from deep borehole versus retrieval of material from spent fuel. With the acceptance of the spent fuel standard as the goal, it seems that DOE has imposed this standard on the public from one recommendation (National Academy of Sciences). The public should have more of a say. There should be a range of alternatives regarding the standard to be used.

11/01.05.00  
cont.

Q: What percent of fissile materials is waste? What percent of fissile materials is a weapons-usable resource? What percent of fissile materials will be disposed of? (Note: No response was provided at the meeting to these questions.)

14/01.00.00  
15/01.02.00

C: DOE needs to provide a direct and forthright response to the public. Stop using flowery phrases and be direct - say what you mean.

16/08.02.00

C: DOE needs to analyze all hybrid combinations of the options (mix and match). These combinations should be analyzed in the document and cumulative impact data provided especially for the specific selection chosen.

17/01.00.00

C: The public has not been afforded the opportunity to look at those mixes and matches. If DOE comes up with this in the final Programmatic Environmental Impact Statement, then there is not a lot of basis for commenting on the draft Programmatic Environmental Impact Statement, because DOE will be placing new options in the final Programmatic Environmental Impact Statement that were not available in the draft evaluation.

18/08.02.00

C: Past persons working with plutonium in secrecy were protected, but this is not the case anymore. How is DOE going to avoid potential legal ramifications, particularly when it doesn't understand the basic science showing that the material cannot be safely or securely stored? When the shroud of secrecy protecting DOE actions is lifted, DOE may find that it is violating environmental laws like it has done in the past.

19/01.00.00

Q: To what extent to date has DOE addressed a science-based rather than policy approach to storage and disposition, stockpile stewardship and management, downsizing, and nonproliferation? Who are the scientists working on this, what are their credentials, who decided which scientists it would be, and what if these scientists take the information from DOE and sell it or take it to Korea? DOE needs the best scientists now. The best should be done now, not later. It will matter to the victims. (Note: DOE staff present at the meeting acknowledged that they did not have a complete answer to these questions and asked the participant to fill out an unanswered question card.)

20/01.00.00

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01 05 00 Comment Number 10

The Department of Energy, in considering the Spent Fuel Standard, did evaluate the adequacy of the Standard versus the greater degree of destruction achievable with other options such as the Deep Burn Reactor Option and the Accelerator Option. It was judged that the Spent Fuel Standard is adequate since it would convert the weapons Pu to a form that would make it as difficult to retrieve and reuse in a weapon as the Pu contained in the much larger existing volume of spent fuel from commercial nuclear reactors.

The Department of Energy concluded that the shorter disposition time achievable with more mature technologies was more desirable than the greater Pu destruction that could only be achieved over a much longer time period through the use of Deep Burn Reactors and Accelerators. The NAS also adopted the Spent Fuel Standard as the most acceptable form for conversion of weapons Pu.

01 05 00 Comment Number 11

Mixed oxide spent fuel will be essentially the same as all uranium in commercial reactor spent fuel; therefore, it will meet the Spent Fuel Standard. Vitrification Alternatives will be mixed with or embedded in high-level waste which will provide a radiation field equivalent to that of spent fuel. For the Borehole Alternative, although a radiation barrier will not be provided, the extreme difficulty in accessing the buried Pu is considered to provide a physical barrier equivalent to the radiological barrier of MOX and immobilization.

01 03 00 Comment Number 12

Comment noted.

14 00 00 Comment Number 13

The intent of the proposed Pu disposition action is not to pursue total Pu destruction. Rather, it is to convert the Pu into a proliferation-resistant form that meets the Spent Fuel Standard as recommended by the NAS. DOE, in

**PUBLIC MEETING ORAL COMMENTS, LAS VEGAS, NV  
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**Las Vegas Public Meeting Oral Comments - March 28 & 29, 1996**

C: Did DOE take land away from the Shoshone? Or did DOE buy it? Or did DOE whip us? I am proud of that land, it provides food and other resources for me, but DOE does not care. The Shoshone are taking action about our land in court, the court has said that it will take a Congressional decision to allow the land to be used by DOE. Did DOE get Congressional permission? I hope DOE enjoys the land!

21/09.01.02

**Evening Meeting  
Storage and Disposition Breakout Session 2**

C: I did not receive a document and I called the provided 1-800 number.

22/08.02.00

**Evening Meeting  
Summary Session**

C: This is not a Nevada or United States specific issue, it affects the future. We are the last generation that can address this responsibly. It may be expensive, but it is more expensive to blow away mankind and all organic life forms. The material can be vectored to the Sun, Moon, or Venus, and this can be done safely, but the material cannot be placed underground or stored. This is a science based mission. Where are the scientists and are they the best? DOE needs the best scientists to deal with this issue because the United States is out of time. The best scientists can get it right the first time, give them the money they need. DOE needs to recognize what we are dealing with, the problem is not nuclear but human nature. We are out of time!

23/01.00.00

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considering the Spent Fuel Standard, did evaluate the adequacy of the Standard versus the greater degree of destruction achievable with other options such as the Deep Burn Reactor and the Accelerator Option. It was judged that the Spent Fuel Standard is adequate since it would convert the weapons Pu to a form that would make it as difficult to retrieve and reuse in weapons as the Pu contained in the much larger existing volume of spent fuel from commercial nuclear reactors.

The Department of Energy concluded that the shorter disposition time achievable with more mature technologies was more desirable than the greater Pu destruction that could only be achieved over a much longer time period through the use of Deep Burn Reactors and Accelerators.

**01 00 00                      Comment Number 14**

None of the weapons-usable Pu is considered waste. The exact percentages of Pu that go to vitrification or to reactor use would be determined as the result of the stabilization process for the Pu materials.

**01 02 00                      Comment Number 15**

According to the Proposed Action, the end state of all the surplus Pu disposition alternatives is disposal.

**08 02 00                      Comment Number 16**

Comment noted.

**01 00 00                      Comment Number 17**

Since the PEIS analyzed the maximum impact of each Pu disposition alternative, and all the alternatives are well within acceptable environmental limits, it is predictable that any hybrid alternative would have much less impact than the combined maxima analyzed.

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**Morning Meeting - March 29, 1996**  
**Plenary Session**

C: Then maybe you should not include that line in your briefing. DOE doesn't pay a lot of attention to the local public. *(Note: This comment was made by a participant following an exchange regarding Yucca Mountain decisions and an overhead in DOE's presentation stating that a "more informed public means better decisions.")* 24/08.02.00

C: The security at Nevada Test Site leaves a lot to be desired. The military has more ability (i.e., warhead disassembly) than just simple storage. 25/13.00.00

**Morning Meeting**  
**Breakout Session**

C: Education and communication with the public is needed for risk perception. The public does not know or understand the numbers and their meanings in relation to risk perception. 26/08.02.00

C: DOE has mentioned several Programmatic Environmental Impact Statements that will generate nuclear waste. Storage and transportation of this material is a major concern. Clark County is not the place to transport the material through. I propose using a rail system that would bisect the state to reach the Nevada Test Site. A rail system, in turn, could bring more industry to Nevada and some equity for the residents. 27/10.00.00

C: I realize that we are not creating high-level waste, but we are disassembling nuclear devices at Nevada Test Site. I would like to see an alternative route for transportation, not through Clark County. 28/10.00.00

C: A railway would provide a dedicated right-of-way for transporting these materials, and they could establish a suitable buffer zone if problems did occur. The rail shipments could be scheduled to occur at times when the least amount of people would be at risk. This would take away the fear people have of shipping this on public highways. DOE needs to use the most viable alternative. 29/10.00.00

C: I understand the security concerns, but there are inequities toward the Tribes. *(Note: This comment was made by a participant regarding DOE coordination with tribal communities following an exchange on transportation accidents and emergency response.)* 30/10.01.00

C: DOE needs to have a translator for individuals to understand the documents. DOE should not provide documents that the average person cannot read and understand. An example 31/08.02.00

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**08 02 00** **Comment Number 18**

The Department of Energy has not placed any new options (alternatives) in the Final PEIS. As stated in Chapter 2 of the Final PEIS, each of the disposition alternatives can be implemented in a number of ways as a variant of a specific alternative. A list of possible variants is included in Table 2.4-1. The alternatives analyzed are considered bounding for any of the variants suitable for the programmatic analyses included in the Final PEIS.

**01 00 00** **Comment Number 19**

Analysis of the Nonproliferation Policy impacts of the various storage and disposition alternatives, including safeguards and security of the facilities, is presented in a separate document to support DOE's ROD. This document was available for public review in October 1996. DOE intends to comply with all laws even if various materials, documents, and data are classified.

**01 00 00** **Comment Number 20**

Comment noted.

**09 01 02** **Comment Number 21**

In the mid-1800s, lands that now comprise NTS were included within the boundary of a treaty between the United States and the Western Bands of the Shoshone Indians (that is, *Ruby Valley Treaty*). In 1951, the Shoshone tribe sought compensation for the loss of aboriginal title to these lands and was later awarded \$26 million in compensation. All of the land within NTS is owned by the Federal Government and is administered, managed, and controlled by DOE.

**08 02 00** **Comment Number 22**

Comment noted.

Las Vegas Public Meeting Oral Comments - March 28 & 29, 1996

is the use of risk numbers. There needs to be greater emphasis on how they affect the public's concerns. Nevadans are interested in short-term effects, such as, property values, construction, etc. A region of influence of more than 50 miles needs to be developed. DOE is looking at costs, but what is DOE's decisionmaking process for the criteria to decide on transportation routes? The public should be able to see these. In the Record of Decision, DOE needs to make sure that Nevadans know what how it relates to the public, area counties, and the state. Negotiations should start for these issues either before or at least by the scoping meetings.	32/01.00.00
C: It took 5 years to receive funding to just expand the road in Pahrump. I am concerned about the impact that project costs and the availability of funding are going to have on the timetable for these programs.	33/08.03.00
C: What I am hearing today are some process problems. Public comments should have been incorporated before the draft document was issued. For example, the Environmental Impact Statement for the Nevada Test Site and Offsite Locations in the State of Nevada affected environment section identifies pollution levels that color the public's perception of alternatives being considered. Emphasis needs to shift to consider local needs and concerns first, not after the proposed action.	34/09.08.02
C: I applaud DOE in trying to address issues regarding nuclear material and waste. I would like to point out the fact that tourism in this area was not hurt during the years when we were detonating hundreds of nuclear devices. Nevada is a large state with a vast amount of federal lands, skilled workforces, and ample resources to address this problem. The factor that needs to be addressed is transportation.	35/08.03.00
C: Maybe this meeting is not concerned about Yucca Mountain, but the people here are.	36/10.00.00
C: The Yucca Mountain Site characterization has not been completed and the Environmental Impact Statement for the Nevada Test Site and Offsite Locations in the State of Nevada Record of Decision is slated for July. This Record of Decision will be made before any of the Yucca Mountain decisions will be made. I don't feel that DOE is integrating the issues, especially when they will impact the Nevada Test Site.	37/12.01.00
Q: What is going on environmentally with these options and how many problems are there going to be? How much damage will there be? <i>(Note: No response was provided at the meeting to these questions.)</i>	38/11.01.02
C: The Nevada Test Site should be utilized - it has fantastic infrastructure and is relatively remote from populations.	39/09.00.02
	40/08.03.01

**01 00 00**                      **Comment Number 23**

Comment noted.

**08 02 00**                      **Comment Number 24**

Comment noted.

**13 00 00**                      **Comment Number 25**

Comment noted.

**08 02 00**                      **Comment Number 26**

The Department of Energy acknowledges and understands the need for education and communication with the public on the subject of risk, accident probability, and related subjects. To help meet the goal of providing meaningful risk information, several pages of explanatory information on risk have been included in the Appendices to the PEIS (specifically see Appendix M).

**10 00 00**                      **Comment Number 27**

Hazardous material transportation routes are predetermined by DOT in conjunction with the States. The risk from normal (nonaccident) transportation of radioactive materials by DOE is minimal. Even severe accidents are highly unlikely to cause injury or death from a radiological release because of the stringent Federal DOT/NRC packaging design and transport safety requirements. In over 40 years of shipment activity, neither DOE nor its predecessor has ever experienced an injury or death from a radiological release during transportation. If a Proposed Action is accepted (by the ROD), additional detailed analyses would be conducted to address specific problem areas identified in the PEIS, such as the need for a railroad to service a site.

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Morning Meeting  
Summary Session

No summary session.

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**10 00 00                      Comment Number 28**

Federal laws govern the transport of hazardous materials in the United States to ensure the safety of the public and security of the cargo. The DOT is the principal Federal agency to implement the regulations, ensure compliance, and provide emergency response guidance. Radioactive materials under this PEIS would be transported through numerous states and local jurisdictions in full compliance with Federal laws (49 CFR) that are applicable to, and cannot be preempted by, individual states. The actual routes are classified. However, they are selected to circumvent populated areas, maximize the use of interstate highways, and avoid adverse weather. Exceptional precautions are taken to ensure safe transport.

**10 00 00                      Comment Number 29**

The methodology for the safe transportation of nuclear materials (Pu and HEU) is well established. Acceptable risk is not dependent upon the transportation mode (truck versus rail) but rather upon the rigorous packaging design requiring Federal safety certification. The packaging must retain its contents under the most severe accident conditions (fire, impact, puncture, or water immersion). Rail transportation for Pu and HEU was abandoned in favor of the SST several years ago, and is not now considered a viable transportation alternative for these materials.

**10 01 00                      Comment Number 30**

Pursuant to *Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, DOE and other Federal agencies identify and address appropriate disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. This may also include necessary coordination and communication with tribal communities regarding potential transportation risks and emergency response.

**08 02 00**                      **Comment Number 31**

The Department of Energy acknowledges and understands the need for education and communication with the public on the subject of risk, accident probability, and related subjects. To help meet the goal of providing meaningful information, several pages of explanatory information on risks have been included in the Appendices to the PEIS (specifically see Appendix M).

**01 00 00**                      **Comment Number 32**

The PEIS performs the risk analysis to estimate health impacts to workers and the public. The risk analysis can only quantify tangible impacts, such as cancer fatalities, on exposed populations. Estimating potential impacts such as future property values and construction activities at sites greater than 80 km (50 mi) from NTS would be speculative and would not fulfill the intent of NEPA. The potential storage and disposition activities that are evaluated for NTS are of smaller scope than previous activities (underground nuclear testing) which apparently had no adverse affect on either the population growth rate or the property values in Clark County and the State of Nevada.

**08 03 00**                      **Comment Number 33**

Transportation of special nuclear materials is by DOE's SST transportation system. This system involves coordination with State and local municipalities along the transportation routes to ensure proper response as required. The actual shipment times and routes vary and are classified for security reasons.

**09 08 02**                      **Comment Number 34**

The funding used to implement the Fissile Materials Disposition Program is unrelated to funding used for road upgrades. The Fissile Materials Disposition Program would have no impact on the availability of funds nor the timetable for completing the Pahrump project.

**08 03 00                      Comment Number 35**

Public comments on the scope of the Proposed Action have been included in the PEIS. Further, the relationship between other NEPA documents recently completed or in preparation (draft released) have been included in the PEIS.

**10 00 00                      Comment Number 36**

The potential risk from radiological exposure during transportation is low because safety is built into the packaging used to transport radioactive materials. Type B packagings are tested to retain their contents under the most severe accident conditions. During the more than 40 years of DOE shipment activity, there has never been an accidental release of radioactive material that has caused injury or death. The maximum potential health risk from transporting materials associated with the Proposed Alternatives is evaluated and presented in Section 4.4 and Appendix G.

**12 01 00                      Comment Number 37**

Comment noted.

**11 01 02                      Comment Number 38**

Consideration of the Yucca Mountain site as a potential geologic repository site is a national policy prescribed by Congress in the NWPA. This PEIS analyzes the environmental impacts of the surplus Pu storage and disposition alternatives, not the impact of siting and operating a geologic repository. Whether or not the site is Yucca Mountain has little relevance to the comparison of alternatives when the same geologic repository is being used.

**09 00 02                      Comment Number 39**

An environmental analysis has been conducted on all alternatives in the following areas: land resources, site infrastructure, air quality and noise, water resources, geology and soils, biological resources, cultural and paleontological resources, socioeconomics, public and occupational health and safety, waste management, and transportation. All impacts at proposed

sites are described in Chapter 4 of this PEIS and summarized in Sections 2.5 and 4.6 and the Summary to this PEIS for all resources specified.

**08 03 01                      Comment Number 40**

The Department of Energy acknowledges the commentor's support for new missions at the NTS. 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.

PUBLIC MEETING ORAL COMMENTS, OAK RIDGE, TN  
PAGE 1 OF 4

Oak Ridge Public Meeting Oral Comments - April 2, 1996

Public Meeting Comments

Oak Ridge Reservation  
April 2, 1996

Morning Meeting  
Plenary (S&D & SS&M) Session

C: I appreciate the opportunity to speak today and thank the press for their participation in the meeting. When I was sworn into office there was a fear in the Oak Ridge area of the Oak Ridge production facilities being sent to design laboratories. Many citizens feel that through the programmatic environmental impact statement process the Oak Ridge technologies will be taken out of Oak Ridge, however, myself and my colleagues are working to ensure that this will not happen. I would like to thank the Citizens for National Security for their work and drive to recognize the work needed for humanity not just Oak Ridge. Your Congressional Officials and myself have worked this year to save the funding for Y-12. In my meeting with Hazel O'Leary, she stated that it was a no-brainer that DOE needs to leave the weapons production capabilities in Oak Ridge. The shutdown that occurred in Oak Ridge was concerned with the money that had been spent and was not necessary. When I visited Los Alamos National Laboratory to see their production facilities, I left a list of 18 unanswered questions. I have a list of those questions and answers available for everyone today.

The programmatic environmental impact statement process does a couple of things: 1) It allows input from people who know what they are doing; and 2) DOE has pitted the partners of the Manhattan Project against each other. DOE needs to be a team today! DOE should not allow the sites to pit against each other therefore allowing a site to save itself while sacrificing the DOE complex. I disagree with the new found fear of nuclear energy, weapons, and waste. The nuclear deterrent is why our country is strong and won the cold war, the United States must maintain its deterrent and production capabilities. DOE needs to leave uranium storage and production capabilities in Oak Ridge. Do not violate National Environmental Policy Act, why would DOE want to contaminate green field sites and leave brown field sites? This makes no sense! DOE needs to slow down and not move so quickly to move weapons production. DOE should not allow partisan and parochial politics to drive this process. The public and DOE can not allow this to happen. *(Note: This comment is primarily directed toward SSM except for the bolded statements, which can be considered directed to both documents.)*

1/08.03.01

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08 03 01

Comment Number 1

The Department of Energy acknowledges the commentor's support for continued HEU missions at the ORR. 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.

PUBLIC MEETING ORAL COMMENTS, OAK RIDGE, TN  
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Oak Ridge Public Meeting Oral Comments - April 2, 1996

Morning Meeting  
Breakout Sessions

C: I do not think any citizen feels that Oak Ridge is a place for storage of plutonium. The option of collocated storage of plutonium and highly enriched uranium needs to be cut out of the final draft. If storage of plutonium did occur at Oak Ridge, this would require a radioactive waste facility to be built. 2/08.03.01

C: There is not an analysis for nonproliferation. This is the time for the United States to show more leadership. The United States should lay the ground work and show other countries how to handle the highly enriched uranium and place it under international control. 3/01.06.00

C: The deep borehole concept has several adverse effects and there are a number of issues raised with these effects. It seems that the deep borehole option should be placed on a secondary option list, so that the public would only need to discuss realistic options. 4/01.04.00

Q: The public would like to make comments on the technical and cost analyses reports. The dismantlement activities for nuclear weapons removed from the stockpile are vague, in particular Volume 3, page 185. I have questions about how the weapons are removed from the stockpile and dismantled in relation to Y-12. Where is this process in the realm of doing things? (Note: The response provided at the meeting did not appear to fully respond to the issue.)

Q: Are the weapons-usable 50 metric tons to be given to the United States Enrichment Corporation the same 50 metric tons in the Highly Enriched Uranium Environmental Impact Statement? Would the highly enriched uranium be titled to the United States Enrichment Corporation? If so, would the titled material be kept on DOE property with the United States citizens paying for storage until the United States Enrichment Corporation can take the material? Would the United States government have to babysit it? (Note: The response provided at the meeting did not appear to fully respond to the issue.)

Morning Meeting  
Summary Session

No summary session

08 03 01 Comment Number 2

The Department of Energy acknowledges the commentator's opposition to Pu storage 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.

01 06 00 Comment Number 3

Comment noted. A nonproliferation analysis was conducted during the summer and fall of 1996 and will be integrated into the decisionmaking process.

01 04 00 Comment Number 4

Comment noted.

**PUBLIC MEETING ORAL COMMENTS, OAK RIDGE, TN  
PAGE 3 OF 4**

Oak Ridge Public Meeting Oral Comments - April 2, 1996

**Evening Meeting  
Plenary Session**

C: At the highly enriched uranium meeting it was stated that the draft Programmatic Environmental Impact Statement was going to be sent to us; however, we did not receive it. I would hate to see this happen again with the cost analysis report, by not having the report available to the public. Reviewing the cost information in the analysis report is very important. 5/08.00.00

C: No disposition of the material should occur. The time horizon is very truncated. What is long-term storage? If the spent fuel is stored more than 200 years in a repository, it will become non-radioactive and then could be mined. Fourteen tons of reactor grade fuel has been separated out in this document, but the total in the country is very large. DOE should avoid making problems for the future. Trying to destroy plutonium is both futile and unrealistic. Making the plutonium unusable may not be good for the future, because the plutonium will probably have to be recovered for energy and nonproliferation needs. It is assumed by the United States that the material will be safe, however, terrorists can do anything. DOE needs to have a more thorough discussion about plutonium, beyond the focus of tonight's meeting. Do not rush into this and make a mistake for the future. The National Academy of Sciences' report (from last summer) has some very good points. 6/08.03.01  
7/08.03.01

C: This may be a problem that DOE cannot solve by itself. If the United States is headed toward energy problems DOE should not move too quickly.

C: It was first established that all of DOE's highly enriched uranium would be stored at Y-12. However, figure S-2 on page S-4 shows that all the highly enriched uranium would stay at Y-12; then page S-3 states that there are several different ways to deal with the highly enriched uranium. I also looked for cost information in the document. I am confident that the cost of moving the highly enriched uranium to other sites will be rolled into the cost analysis. Highly enriched uranium storage is important to Y-12 - it should be the preferred alternative. 1/08.03.01  
cont.

C: Collocation of the material is for safeguards and security purposes.

**Evening Meeting  
Breakout Session - Remained together**

C: In reference to creating a radiation field as a proliferation deterrent, I do not think the radiation field would deter a terrorist or potential antagonist. The field will not eliminate the material, it would just make it difficult for future retrieval. 8/13.00.00

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**08 00 00 Comment Number 5**

Cost data, along with technical and schedule data, was provided in Technical Summary Reports for storage and disposition in the summer of 1996.

**08 03 01 Comment Number 6**

The Department of Energy acknowledges the commentor's opposition to the 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.

**08 03 01 Comment Number 7**

The Department of Energy acknowledges the commentor's support for long-term 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.

**13 00 00 Comment Number 8**

The intent is to make the surplus Pu as unattractive and inaccessible as spent nuclear fuels. A committed terrorist would have to have the technical specialists and equipment to transport these radioactive materials and conduct extensive remote chemical processing in order to extract the Pu for weapons use.

Oak Ridge Public Meeting Oral Comments - April 2, 1996

C: The position of the local section of the American Nuclear Society is to endorse the "Protection and Management of Plutonium - Special Panel Report", especially its key conclusions and recommendations. For example: Strong support for the conversion of all plutonium now scheduled for release from the United States and Russian weapons stocks to a form which is protected from theft or seizure by intense radioactivity; and the prompt implementation of the reactors irradiation option for disposition of surplus United States and Russian weapons plutonium by employing available reactors in the United States, Russia, or other countries. 9/08.03.01

C: A lot of utilities are trying to get rid of reactors because of decommissioning and decontamination activities and cost. DOE may be able to purchase a reactor cheaply, then the government would only have to decontaminate and decommission that reactor. 10/06.00.09

C: The Stockpile Stewardship and Management and Storage and Disposition draft Programmatic Environmental Impact Statements are full of jargon and are hard to read and understand. These highly technical documents need to be comprehensive, and the documents should be written to an eighth grade level so that the average citizen will be able to read and understand them. 11/08.02.00

C: I am concerned about the socioeconomic impacts dealing with plutonium and its negative impacts. Negatives may be psychological versus real. These should be addressed in the document. 12/09.08.08

Evening Meeting  
Summary Session

No summary session

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08 03 01                      **Comment Number 9**

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.

06 00 09                      **Comment Number 10**

Comment noted.

08 02 00                      **Comment Number 11**

The Department of Energy acknowledges and understands the need for education and communication with the public on the subject of risk, accident probability, and related subjects. To help meet the goal of providing meaningful information, several pages of explanatory information on risk have been included in the Appendices to the PEIS (Specifically see Appendix M).

09 08 08                      **Comment Number 12**

The socioeconomic analysis estimates impacts to employment, income, housing, and community services. These impacts are estimated using standard methodology, and can be quantified and compared across sites. Addressing "risk perception" issues would be highly speculative and not quantifiable. Furthermore, it would not be possible to compare alternatives in a consistent manner.

**PUBLIC MEETING ORAL COMMENTS, RICHLAND, WA**  
**PAGE 1 OF 21**

Richland Public Meeting Oral Comments - April 11, 1996

**Public Meeting Comments**

**Hanford Site**  
**April 11, 1996**

**Afternoon Meeting**  
**Plenary Session**

- |  |                   |
|--|-------------------|
| <p>C: According to the Programmatic Environmental Impact Statement and briefing, these actions are being taken because of the Nuclear Nonproliferation Treaty and are considered an international obligation. The Fuels Material Examination Facility has been considered for mixed oxide fuel fabrication and storage in the draft Programmatic Environmental Impact Statement. It is unclear how the Fuels Material Examination Facility could be used as a production plant and as a storage facility.</p>  | <p>1/02.00.01</p> |
| <p>C: I am concerned about destroying weapons that the United States may need later. The Russians can not be trusted, they may use their material to produce weapons, and to establish relations with terrorist groups.</p>  | <p>2/01.03.00</p> |
| <p>C: The plethora of Environmental Impact Statements has bombarded the public in terms of Programmatic Environmental Impact Statements and how to encompass the environmental impacts under them. Since there are so many programmatic documents being produced and the Environmental Impact Statements are so segmented, I have no sense of the cumulative environmental impacts. The Environmental Impact Statements should be sub-projects of the Programmatic Environmental Impact Statements and not separate Environmental Impact Statements.</p> | <p>3/08.00.00</p> |
| <p>C: I would like to see a shell environmental document (Programmatic Environmental Impact Statement) that could handle waste as it is generated. This could be accomplished by having the cumulative impacts for an Environmental Impact Statement being provided to an overall shell. As of now, the public only sees a portion of the cumulative impacts. The public should be able to see the whole picture.</p>  |                   |
| <p>C: This is an exercise in futility. DOE should not lead the public on to think that a decision will be made based on this draft document. The decisions will be made for DOE by an extraneous group. This document has not progressed far enough in terms of technology, cost, research, and in discussions with Russia in order to be meaningful enough to include the public for comment solicitation. It seems that these meetings are a disclaimer, so that DOE can check off public participation from its list.</p>                             | <p>4/08.02.00</p> |

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**Note:** A number of documents submitted during the public meetings were recorded as part of the minutes. The same documents, in some instances, were also submitted as hand-ins at the end of the meeting. In those cases, the documents are analyzed once, either as part of the minutes or as stand alone documents.

Listed below are the names of the organizations/individuals who submitted documents as part of the minutes and the page numbers containing DOE's responses to the comments:

Tri-City Industrial Development Council, Sam Volpentest	3-763
State of Washington, State Representative, Shirley Hankins	3-1025
Benton County Commissioner, Sandi Strawn	3-65
American Nuclear Society	3-41
City of Richland, Councilman Ken Dobbin	3-147
City of Richland, Mayor Larry Haler	3-144
State of Washington, Department of Ecology, Max S. Power	3-1011

**02 00 01                      Comment Number 1**

The FMEF is considered for use as a long-term storage facility for Pu and the impacts are included in Section 4.2.1 of the PEIS. For the production of MOX fuel, a generic facility was considered for all six DOE sites. At Hanford the MOX fuel fabrication facility would be located in the 200-Area adjacent to 200 East. The utilization of the FMEF would be a variant for MOX fuel fabrication at Hanford, which is bounded by the environmental analysis for the MOX fuel fabrication facility located in the 200-Area. Table 2.4-1 of the PEIS provides a brief description for variants which includes "Modification/Completion of existing facilities for MOX fabrication." The storage options for Hanford also include constructing a new facility.

Utilization of FMEF for the Upgrade Alternative would not preclude its use to also support Pu disposition activities, for either Reactor or Immobilization Alternatives.

Richland Public Meeting Oral Comments - April 11, 1996

Afternoon Meeting  
Breakout Sessions

C: I would like to thank DOE for the opportunity to speak today. If the Hanford Site is considered for storage and disposition, there should be a quid-pro-quo on the other laws, agreements, and treaties which are in place with the State of Washington related to clean-up. DOE needs to ensure that the clean-up of the Hanford Site will not be hindered. Acceptance of material should consider the storage facilities available and cost. Transportation of the waste off of the Hanford Site should require research on area weather and conditions. This draft Programmatic Environmental Impact Statement has not evaluated transportation issues as detailed as other Environmental Impact Statements. Transportation is a national issue and local officials are very concerned. Emergency preparedness will require proper funding and other state and local organizations will need to be kept abreast of the transportation of the material.

5/11.00.01

C: I appreciate the amount of work that has been placed in this draft Programmatic Environmental Impact Statement, however, I see some glaring omissions. The Fuels Material Examination Facility was not originally included in the document but now I understand the reason, since the facility was not functional at the time the document analysis was initiated. The Fuels Material Examination Facility is the newest DOE facility which could support mixed oxide fuel fabrication and DOE should consider the facility in the final Programmatic Environmental Impact Statement. The potential of using Hanford's capabilities should be considered. This option can be accomplished for just the cost of completing the existing facilities. In terms of considering life cycle costs for the next decade the Fuel and Materials Examination Facility is extremely good. I am confused about the economics, would life cycle cost or short-term economics be the overriding element? Short-term economics are perhaps foolish. I hate to see the Russians ahead of the United States again, as with what happened in space. The ordinary taxpayer thinks little about energy. Ordinary taxpayers and those who are not polarized in their thinking believe DOE is committed to the long-term. This material needs to be looked at not as a waste, but as an energy source. Long-term storage for the average citizen is 100 to 200 years.

6/10.01.00

1/02.00.01  
cont.

C: The Russian material should be placed in safe storage. I support the reactor disposition option for mixed oxide fuel for the following reasons: 1) The reactor burns the material so it will not be weapons-usable. By burning the fuel as mixed oxide, the material will be down graded; 2) The United States will be consistent with Russia and other countries' strategies; 3) The process is irreversible and makes it acceptable to other Nonproliferation Treaty countries; 4) The process has been proven based on existing technology here and in other countries; and 5) Using the reactor would generate revenues, which would off-set the disposition cost. A mixed oxide fuel facility may need to be built or is there a possibility of using an existing facility. British Nuclear Fuels has a facility that produces mixed oxide fuel and could handle this material. The mixed oxide fuel option is not an action that is against nonproliferation, it is focused on the

7/07.00.00

8/15.00.00

9/08.03.01

01 03 00 Comment Number 2

Comment noted. DOE is responsible for implementing the President's Nonproliferation Policy as a result of the arms reduction at the end of the Cold War. DOE is also implementing a Stockpile Stewardship and Management Program to maintain the core competency and capabilities in support of national defense missions.

08 00 00 Comment Number 3

The Department of Energy works to assure that each environmental document is not connected, in the NEPA sense, to other DOE-prepared sitewide EISs. In these documents, the cumulative impacts of all current and foreseeable new missions, plus deletions to current missions are analyzed. In this manner the public and the decisionmaker can see the whole picture on a Proposed Action at a particular site.

08 02 00 Comment Number 4

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. The National Dialogue Project, which is beyond the scope of this PEIS, is being implemented by DOE.

11 00 01 Comment Number 5

Comment noted. DOE's Fissile Materials Disposition Program is an integrated effort that will require the participation of a number of DOE sites that have weapons material experience. DOE acknowledges the commentor's concern about the potential effect that the selection of Hanford for new missions could have on the Hanford cleanup program. It is DOE's intent that the implementation of Fissile Materials Disposition Program decisions will have little or no impact on ongoing clean up programs. 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. The decision process will also give consideration to existing agreements between DOE, the State of Washington, and the EPA.

PUBLIC MEETING ORAL COMMENTS, RICHLAND, WA  
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<p>destruction of the material. Although some may think it is inconsistent with nonproliferation policy, the burning of mixed oxide fuel would ensure the destruction of weapons-grade material rather than the focus primarily being energy production. Thank you for allowing me to make my comments.</p>	<p>9/08.03.01 cont.</p>
<p>C: We support the mixed oxide reactor option. It is a technically and economically viable option. Timeliness in this issue is very important - ten years is too long. This is an international issue that will not go away. Thank you for allowing me to make my comments.</p>	<p>10/08.03.01</p>
<p>C: I understand that consolidated storage may need to occur, but it does not solve the problems as summarized by the National Academy of Sciences. All of the disposition options require pit disassembly and conversion. I don't think that pit disassembly and conversion needs to occur, because the standard process is not capable of handling the tons of material DOE is addressing. DOE is not ready to go forward with technology, because it has only been proven using kilograms. The current population is living with results of the haste in which the weapons program was put together. Funds need to be earmarked for the identification of waste streams created from pit disassembly and for conversion and development of the technology necessary to treat what will be generated in the conversion process. Taking the time and establishing technology to deal with waste may alleviate the possibility of the existing problems at Hanford happening somewhere else.</p>	<p>11/03.01.08  12/01.00.00</p>
<p>C: [Prepared statement of Sam Volpentest (see attached)]</p>	
<p>C: The local government and community organizations hold real concerns for many issues regarding worker and community health and safety; the Hanford clean up; and the continued commitment to the Tri-Party Agreement. Organized a couple of years ago, the "Hanford Communities" is a group made up of community leaders, who look at issues dealing with local governments. The "Hanford Communities" has put together an advisory committee with expertise in the areas of concern. I would like to introduce some of these individuals here tonight. We will be delivering formal written comments later. I appreciate the openness of DOE on the issues. Transportation issues of the material and location of new material into the Hanford mission will receive scrutiny, and we want to ensure that decisions made by DOE through this draft Programmatic Environmental Impact Statement do not impede or preclude prior commitments to clean up the site.</p>	<p>13/11.00.01  13/11.00.01 cont.</p>
<p>C: I appreciate DOE holding public meetings in Portland and Seattle. Plutonium is extremely toxic to humans and causes dramatic health effects. 80 micrograms can cause cancer to those exposed. Oxides of plutonium are more toxic than pure plutonium in elemental form. In reference to the waste stream chart, the waste streams from burning mixed oxide fuel are at the top end of the chart when compared with waste generated by the other options. I disagree with a previous speaker's statement that the reactor option offers irreversibility and eliminates</p>	<p>14/06.00.08</p>

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10 01 00

Comment Number 6

Logistical planning and meteorological surveillance are standard concerns which normally receive a great deal of attention during transportation operations such as this; transfer of materials to Hanford will hold no exceptions. Emergency preparedness personnel (that is, Emergency Response Teams) will be supplied with the necessary equipment and training commensurate with DOT, DOE, and NRC regulations. Sufficient funding for these concerns will be available to satisfactorily ensure that potential contingencies are dealt with in an effective and timely manner. DOE provides liaison with appropriate agencies for special nuclear material shipments. However, due to their classified nature, specific information on times and dates cannot be provided.

07 00 00

Comment Number 7

The Department of Energy agrees that the materials are surplus rather than waste. Cost data, along with technical and schedule data, was provided in a Technical Summary Report for disposition beginning in late July 1996. Additional comments were noted.

15 00 00

Comment Number 8

Comment noted.

08 03 01

Comment Number 9

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 10

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

Richland Public Meeting Oral Comments - April 11, 1996

weapons usability of the material. It is always possible to extract weapons-usable material from spent waste. The dates for opening a repository keep slipping with no end in site. If Saddam Hussein or like organizations could get their hands on mixed oxide fuel they could make a scary weapon. I can't believe that DOE would want to transport mixed oxide fuel to England, considering the problems that Japan has had in transporting plutonium. Does the government endorse burning mixed oxide fuel? It is premature to attribute the Governor's support to the reactor option. This Programmatic Environmental Impact Statement is a shared responsibility, the public is having a hard time focusing on all of the Environmental Impact Statements. The piecemeal approach DOE is using does not allow the public to see the breadth and depth of the nuclear problem, which pits states against states, and sites against sites. National dialogue similar to the ones fostered by Tom Grumbly, Assistant Secretary for Environmental Management, and health and safety groups such as the Plutonium Round Table are needed to directly address the outcomes that should derive from the draft Programmatic Environmental Impact Statement.

14/06.00.08  
cont.

15/01.02.00

4/08.02.00  
cont.

C: There is a clear and present danger with this material. Ten to twelve years is an unacceptable time frame to deal with this issue. I will leave the Governor's comments on the storage and disposition of weapons-usable fissile material and ask that they be made available tonight and submitted to the record.

[Note: The following comments reflect an exchange between two members of the public]

C: DOE needs to look at the source term in regards to off-normal accidents. In reference to a previous speaker stating that plutonium is the most deadly material, I respond that plutonium has no harm even if it is absorbed through the skin. With plutonium everyone should worry about air particles. Shipment of plutonium can be done under maritime regulations and it has been done by air. There is technology which can handle the material. Persons of the public do not have to use scare tactics.

16/09.09.08

C: The health effects of plutonium are due to inhalation, ingestion is not the issue.

C: There is a transport and delivery system for the material. The material is transported in closed glove boxes.

Afternoon Meeting  
Summary Session

No summary session

4

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03 01 08

Comment Number 11

The Department of Energy is developing an Advanced Recovery and Integrated Extraction System (ARIES) prototype for demonstration of pit disassembly and conversion process to remove Pu from weapons pits and convert it into either an oxide or a metal. Unlike previous pit disassembly processes, the ARIES process is a low waste, dry process that does not generate aqueous liquid waste from dissolution of Pu in acid. The individual parts of the ARIES process have already been demonstrated using several dozen pits. The prototype program will demonstrate the complete integrated process at a scale that can be used to support the design of a production system that can disassemble and package the inventory of surplus Pu pits. The worst-case waste streams for operation of an ARIES production facility have been identified in the PEIS. Operation of the prototype will enable further refinement of these waste stream estimates.

01 00 00

Comment Number 12

Pit disassembly and Pu conversion use existing technologies. Waste streams are estimated based on the throughput of the facilities used for processing the Pu. When applying for operating permits from the State where the facilities reside, DOE must convince the state authorities that the waste streams meet the applicable standards and criteria set by the State.

11 00 01

Comment Number 13

Comment noted. DOE's Fissile Materials Disposition Program is an integrated effort that will require the participation of a number of DOE sites that have weapons material experience. DOE acknowledges the commentor's concern about the potential effect that the selection of Hanford for new missions could have on the Hanford cleanup program. It is DOE's intent that the implementation of Fissile Materials Disposition Program decisions will have little or no impact on ongoing clean up programs. 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. The decision process will also give consideration to existing agreements between DOE, the State of Washington, and the EPA.

Comment Documents  
and Responses

Richland Public Meeting Oral Comments - April 11, 1996

Evening Meeting  
Plenary Session

C: [Prepared statement of Shirley Hankins (see attached)]

C: [Prepared statement of Sandi Strawn (see attached)]

C: The Richland Chamber of Commerce supports the burning of mixed oxide fuel in light water reactors and not wasting what the United States has spent billions of dollars developing. This option would be less costly.

17/08.03.01

C: The American Nuclear Society feels committed to the return of plutonium. The issue of nonproliferation brings in the political factor. The American Nuclear Society has prepared a study "Protection and Management of Plutonium - Special Panel Report" addressing the technical issues involved. The American Nuclear Society has decided on three things that are needed to do a good study: 1) Place recognizable people on the panel for the study; 2) The study should be from an international perspective; and 3) Look at the context of all plutonium in all places. The major finding of the study was to use the burn option because it supports nonproliferation. Burning changes the isotopic content of the material and will convey a responsibility on the part of the United States that they are serious. Contrary to other comments, none of the members of the study feel that the United States or Russia would use the material to make weapons.

C: [Prepared statement of American Nuclear Society representative (see attached)]

C: [Prepared statement of Ken Dobbin (see attached)]

C: [Prepared statement of Larry Haler (see attached)]

C: [Prepared statement of Max S. Power (see attached)]

C: Reactor fissioning uses existing technologies. It offers the fastest, least cost route and can achieve effective electric rate fares. This would be a win for the Northwest. DOE already has an agreement with Bonneville Power at the Washington Nuclear Plant-2 facility. The Bonneville Power employees on site can do all of this work. DOE should take into consideration the benefits of our relationship.

9/08.03.01  
cont.

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06 00 08

Comment Number 14

It is true that Pu can be extracted from spent fuel. However, the Pu is not considered weapons-usable until it is extracted from spent fuel. The goal of the Fissile Materials Disposition Program is to render the Pu to a state in which it is not directly weapons usable, like Pu in spent fuel.

01 02 00

Comment Number 15

The *National Environmental Policy Act* requires evaluation of all reasonable alternatives. Reactor use of the MOX fuel containing surplus Pu is a reasonable alternative for Pu disposition and, therefore, has been analyzed in the PEIS.

09 09 08

Comment Number 16

The human health impacts from potential accidents are presented in this PEIS for all of the proposed facilities including the facilities in the Borehole Option. For each of the anticipated accidents, the impacts analyzed include the cancer risk to workers and the maximally exposed individual (MEI), as well as the potential cancer fatalities for the regional population up to 80 km (50 mi). The anticipated accidents analyzed cover a wide spectrum of the potential accidents including those that have large consequences but low probability, such as criticality accident (a nuclear reaction) and earthquake (catastrophe). The anticipated accidents include an analysis of the initiating events, materials at risk, source terms, probabilities, and consequences.

08 03 01

Comment Number 17

The Department of Energy acknowledges the commentor's support for the Existing LWR 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.

Richland Public Meeting Oral Comments - April 11, 1996

[Note: The following two comments reflect an exchange between two members of the public]

C: Thanks for the opportunity to speak and for extending meetings to the Portland and Seattle areas. I would like to invite all of the participants tonight to attend these meetings. As a physician, the toxicity of plutonium is important to address. Plutonium is extremely hazardous. The inhalation of a very small quantity will cause cancer. However, plutonium oxides are more dispersible than the elemental form, therefore easier to inhale. The implication that waste streams from mixed oxide fuel would net zero is incorrect. Mixed oxide fuel is a contributor to the waste streams, more so than other options being assessed, as well as compared to other energy sources that could be used. Waste from burning the material in light water reactors is higher than other stabilization options that are being considered. This option would add to a 50-year waste problem that DOE has not yet been able to solve. The United States can not consider the reactor option when DOE has not dealt with the present waste problem. Post haste and International Atomic Energy Agency oversight are necessary when dealing with this issue. To move forward and make more waste is irresponsible.

18/06.01.08

C: Waste disposal is a political problem and it is exacerbated by persons like yourself that do not understand.

C: The National Environmental Policy Act is the reason I am here today. It requires DOE to open up the process to public input. Other reasons for my attendance would be that I have live and worked in this area for a long time, which has enabled me to develop a lot of expertise on how to deal with uranium and plutonium. The security of our country is the most important driver of these decisions. Nonproliferation is not a good word to use if you want it to mean that it is to save the world. I have a major interest in the supply system. If the United States takes the lead, plutonium could be burned in local reactors. Other health and environmental related jobs need to be addressed. The information available such as the summary is excellent; the American Nuclear Society provision is a fine summary; and the National Academy of Sciences' report should be added to this decisionmaking process. All of these documents have a good point. I understand that the United States is just talking to the Russians with no evidence of anything other than talking being made. The Fast Flux Test Facility should be a part of the program. The tritium proposal for the Fast Flux Test Facility is great. DOE is not going very fast and the public should demand faster action. Lots of area citizens, except those here tonight, are uninformed about this issue.

19/01.06.00

C: The timing on the completion of the draft Programmatic Environmental Impact Statement and the closure of the comment period is too short to be able to provide responsible comments. The comment period should be extended.

20/08.01.00

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06 01 08                      Comment Number 18

The environmental impact of the MOX fuel waste streams is presented in Chapter 4 and Appendix H of this PEIS.

01 06 00                      Comment Number 19

Comment noted. The NAS report is included in the decisionmaking process.

08 01 00                      Comment Number 20

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

**PUBLIC MEETING ORAL COMMENTS, RICHLAND, WA  
PAGE 7 OF 21**

**Richland Public Meeting Oral Comments - April 11, 1996**

C: DOE needs to be financially sound with their decisions. The draft Programmatic Environmental Impact Statement should not just explain how to store and dispose of the material and how to keep even with Russia. I do not mind giving a couple of million to the Russians if that is the best use of the money to help alleviate this problem.

21/01.03.00

**Evening Meeting  
Summary Session**

No summary session

01 03 00

Comment Number 21

Comment noted.



**TRIDEC**

TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL

901 N. Colorado • Kennewick, WA 99336-7485 U.S.A. • (509) 735-1000 • FAX (509) 735-4409 • 1-800-TRI-CITY

COMMENTS BY  
SAM VOLPENTEST, EXECUTIVE VICE PRESIDENT  
TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL

TO  
U.S. DOE  
PLUTONIUM DRAFT PEIS PUBLIC HEARING  
APRIL 11, 1996

ON BEHALF OF THE TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL (TRIDEC), WE APPRECIATE THE OPPORTUNITY TO OFFER OUR COMMENTS TO THE U.S. DEPARTMENT OF ENERGY PLUTONIUM DRAFT PEIS PUBLIC HEARING ON STORAGE AND DISPOSITION OF WEAPONS-USABLE FISSIONABLE MATERIALS.

TRIDEC IS A 33 YEAR OLD NOT-FOR-PROFIT ORGANIZATION WITH OVER 550 MEMBERS THROUGHOUT THE MID-COLUMBIA REGION OF WASHINGTON STATE. OUR MISSION IS TO PROMOTE THE ECONOMIC GROWTH, DIVERSIFICATION OF THE HANFORD SITE AND DEVELOPMENT OF OUR REGION. OUR MEMBERS INCLUDE AGRICULTURE, BUSINESS, EDUCATIONAL, HANFORD CONTRACTORS, LABOR, PORT DISTRICTS, THE MAJOR CITIES AND OUR TWO COUNTIES OF BENTON AND FRANKLIN. WE ARE DESIGNATED AS THE TRI-CITIES "ONE VOICE" FOR THE COMMUNITY BY THE DEPARTMENT OF ENERGY.

WITH THESE COMMENTS, WE WISH DOE WILL STRONGLY CONSIDER AND EVALUATE THE FOLLOWING ISSUES:

- THE PROCESSING AND TEMPORARY STORAGE OF EXCESS PLUTONIUM OR WASTE SHOULD NOT BE SEPARATED. | 22/01.02.00
- THE FINAL DISPOSITION OF PLUTONIUM CANNOT BE EVALUATED WITHOUT CONSIDERING THE POLITICALLY EXPLOSIVE ISSUE OF THE SITE SELECTED FOR STORAGE OF THE WASTE. | 23/08.03.00
- HANFORD IS A FEDERALLY OWNED SITE WITH FACILITIES, INFRASTRUCTURE AND SECURITY PROVEN AND IN PLACE AND HAS EXPERIENCE IN ALL ASPECTS OF PLUTONIUM TECHNOLOGY.

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01 02 00

Comment Number 22

Comment noted. For Pu disposition, the end state of all the alternatives described in this PEIS call for ultimate disposal in a geologic repository. Prior to shipment of the spent fuel or vitrified wastes to this geologic repository, onsite storage is planned. For the Existing LWR Alternative, the utility company operating the LWR would be responsible for storage of the spent fuel while the Canadian utility company would be responsible for the spent fuel in the CANDU Reactor Alternative.

08 03 00

Comment Number 23

The PEIS discusses the potential final disposal of the spent fuel if a Reactor Alternative was selected and the final disposal of the immobilized "logs" if an Immobilization Alternative was selected. There is no final disposal requirement for a Borehole Alternative. Both the spent fuel and the logs would be placed in the NWP-ALW repository. This would take place whenever and wherever that repository is located.

Comment Documents  
and Responses

**PUBLIC MEETING ORAL COMMENTS, RICHLAND, WA  
PAGE 9 OF 21**

- AN EXPERIENCED WELL TRAINED WORK FORCE IS IN PLACE OR AVAILABLE TO UNDERTAKE A PLUTONIUM MISSION.
- SELECTION OF THE "PLUTONIUM BURN" OPTION COULD USE EXISTING AND AVAILABLE FACILITIES AT HANFORD. THEY INCLUDE FFTF - WNP-2 AND/OR WNP-1 - AND THE COMPLETED BUT UNUSED FUELS MATERIAL EXAMINATION FACILITY (FMEF).

I WILL BRIEFLY COMMENT ON THE ABOVE ISSUES:

ON SEPARATION AND INTERIM STORAGE, WE BELIEVE DOE MUST TAKE AN OVERALL "SYSTEMS" APPROACH TO THE PROBLEM. INTERIM STORAGE MUST BE BASED ON ACCEPTABLE WASTE FORMS WHICH IN TURN WILL DEPEND ON THE DISPOSITION OPTION. FOR EXAMPLE, IF THE DISPOSITION OPTION IS TO "BURN" THE PLUTONIUM AS MIXED OXIDE FUEL IN LIGHT WATER REACTORS, THE WASTE TO BE STORED IS SPENT FUEL. INTERIM STORAGE THAT IS NOT AN INTEGRAL PART OF A WELL PLANNED DISPOSITION PLAN WILL BE POLITICALLY DIFFICULT, IF NOT IMPOSSIBLE, TO SELL TO THE PUBLIC. NO ONE, INCLUDING OUR TRI-CITIES, WANTS TO BE THE STORAGE SITE FOR THE PLUTONIUM WITH NO CLEAR AGREED UPON PLAN FOR ITS ULTIMATE DISPOSAL.

22/01.02.00  
cont.

WE SINCERELY URGE DOE TO ADOPT THE "PLUTONIUM BURN" OPTION FOR MANY REASONS. FOR EXAMPLE, THERE IS NO NATIONAL POLICY AS TO WHERE TO STORE OR HOW TO DISPOSE OF THE MATERIAL. THE NATIONAL ACADEMY OF SCIENCE LAST YEAR STUDIED THE ISSUE AT GREAT LENGTHS AND CONCLUDED "THE ONLY FEASIBLE AND ACCEPTABLE METHODS WERE TO "BURN" THE MATERIAL IN A POWER REACTOR AS FUEL OR DISPOSE OF THE MATERIAL IN SECURE DEEP BORE HOLES. AT A RECENT PLUTONIUM WORKSHOP, TOM COCHRAN OF THE NATIONAL RESOURCES DEFENSE COUNCIL ENDORSED THE USE OF THE MATERIAL AS REACTOR FUEL WITH DISPOSAL OF THE SPENT FUEL RODS AT YUCCA MOUNTAIN. THE ABOVE SCENARIO PROVIDES OPPORTUNITIES FOR THE POSSIBLE USE OF EXISTING HANFORD FACILITIES SAVING THE TAXPAYERS MILLIONS OF DOLLARS.

9/08.03.01  
cont.

OUR EVALUATION OF THIS ISSUE HAS IDENTIFIED MANY OPPORTUNITIES FOR POSSIBLE USE OF EXISTING HANFORD FACILITIES IN A PLUTONIUM DISPOSITION PROGRAM WHICH INCLUDES THE FOLLOWING:

- USE OF THE FMEF AS A PROCESSING FACILITY FOR CONVERSION OF THE METALLIC PLUTONIUM TO AN OXIDE FOR SAFE STORAGE.
- USE OF THE EXISTING FMEF AND PFP PLUTONIUM VAULTS FOR INTERIM STORAGE OF THE PROCESSED PLUTONIUM. ADDITIONAL STORAGE FACILITIES BEYOND THESE WOULD BE REQUIRED FOR THE MISSION. THE

1/02.00.01  
cont.

FMEF COULD PROVIDE THIS ADDITIONAL STORAGE REASONABLY AND ECONOMICALLY.

- UTILIZATION OF THE FMEF AS A MIXED OXIDE FUEL FABRICATION FACILITY. THERE ARE NO OTHER PLUTONIUM FABRICATION FACILITIES IN THE UNITED STATES. THE FMEF HAS THE CAPACITY AND INSTALLED EQUIPMENT TO PERFORM THIS MISSION, WHICH WAS ITS ORIGINAL DESIGN FUNCTION.
- DISPOSAL OF THE PLUTONIUM BY "BURNING" IN THE FFTF EITHER ON A DEMONSTRATION OR PRODUCTION BASIS. THIS COULD BE COUPLED WITH THE WNP-2 PROPOSAL FOR THE OPERATION OF THAT REACTOR WITH A MIXED OXIDE FUEL.
- GOVERNOR LOWRY SUPPORTS THE BURN OPTION IN THE STATE OF WASHINGTON.

1/02.00.01  
cont.

24/01.02.00

WE STRONGLY BELIEVE THE DRAFT PEIS IS DEFICIENT AS IT DOES NOT EVALUATE THE COMBINED USE OF HANFORDS ASSETS FOR THE "PLUTONIUM BURN" MISSION. THESE ASSETS INCLUDE FMEF-FFTF-WNP-1 AND WNP-2. WE WILL SUBMIT A MORE DETAILED STATEMENT SUPPORTING THESE OPTIONS UNDER SEPARATE COVER. WE REQUEST THAT THE DEPARTMENT OF ENERGY EITHER REVISE THE CURRENT DRAFT PEIS OR ISSUE A SUPPLEMENT TO IT WITH AN OBJECTIVE EVALUATION OF THE HANFORD SITE "BURN" OPTION CONSIDERING THE UTILIZATION OF THE AVAILABLE ASSETS BEFORE REACHING A DECISION.

24/01.02.00  
cont.

THANK YOU FOR CONSIDERING OUR VIEWS ON THIS VERY CRITICAL NATIONAL ISSUE.

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01 02 00

Comment Number 24

Liquid metal reactors were not included as alternatives for Pu disposition in the PEIS due to the longer time and greater cost required to complete their construction. The FFTF, on the other hand, is an existing reactor and could be used for Pu burning. However, the limited capacity of the FFTF would limit the rate at which Pu could be dispositioned and would require a much longer timeframe for disposition than that which could be achieved with the reactor options addressed in the PEIS.

The Department of Energy is in fact considering the FFTF, pursuant to the ROD for the TSR PEIS. The ROD (December 1995, 60FR 63878) for the TSR PEIS addressed the FFTF for tritium production as follows:

A private group has recently suggested that it purchase the FFTF from DOE and DOE then contract with the private group to make tritium at that facility. In the [Tritium Supply and Recycling Final] PEIS, the use of FFTF was considered and dismissed as a long-term tritium supply option because the amount of tritium that it could produce would only meet a percentage of the steady state tritium requirements, and it was not reasonable to rely on operating the facility far beyond the end of its design life. However, DOE will evaluate the presentation made by the private group to determine whether the operation of the FFTF might be able to play any role in meeting future tritium requirements. If any changes are warranted to this ROD following that review, or further NEPA documentation is required, DOE will take appropriate action.

The Secretary of Energy has requested a review by the JASONS Panel (eminent academic scholars and scientists) as part of the evaluation of tritium production with the FFTF. Should the outcome of this evaluation lead to a DOE proposal to restart the FFTF for tritium production, additional environmental analyses would be performed as appropriate. If the FFTF were to be restarted, a substantial portion of the surplus Pu that would be used for MOX fuel could be used to fabricate FFTF driver fuel, thereby achieving the Spent Fuel Standard for Pu disposition through irradiation in the FFTF. Further description of the FFTF has been added to Appendix N of the PEIS.

The FMEF was a candidate storage facility under the Upgrade Alternative for storage of weapons-usable fissile materials.

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Prepared Comments  
Shirley Hankins  
Washington State Representative  
8th District  
April 11, 1996  
Richland, Washington

I'd like to thank the Department of Energy for providing this opportunity to deliver comments on the Programmatic Environmental Impact Statement for Storage and Disposition of Weapons-Usable Fissile Materials. Clearly, this is an issue of great magnitude for all citizens of the United States, and especially for residents of the Tri-Cities because of the potential we have for direct involvement with this program.

I'm pleased to be able to provide comments on the management of material that previously had one use, that of nuclear weapons and weapons capability. What a positive course of action for both the United States, the Russian, and other former Soviet Union governments to put this material to a productive use.

With respect to the three options the Department of Energy is analyzing for disposition of surplus plutonium, I would urge the Department to select in whole or part the Reactor Irradiation option.

- This option, which is heavily endorsed by the National Academy of Sciences, offers the most timely method for rendering this material non-usable to terrorist or other threatening countries or organizations.
  - Disposal of the surplus plutonium, through the form of Mixed Oxide Fuel, is a proven technology, already used in many reactors throughout the world.
  - The use of MOX fuel in U.S. nuclear reactors would allow for the generation of valuable electricity. Imagine, actually putting material once packaged into nuclear weapons to productive use for generating electricity. Government regulation of MOX fuel use would ensure the material is used in a way so that public health and safety are optimally protected.
  - Through the DOE's Hanford Site, and the Washington Public Power Supply System, we have the needed infrastructure and capability to fabricate and consume MOX fuel right here, offering the Department of Energy a timely, comprehensive, and efficient manner in which to dispose of surplus plutonium.
- I hope the Department of Energy will give serious thought to the reactor irradiation option, and when it comes time to deliver the Record of Decision, that this option will be selected.
- Thank you.

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TESTIMONY OF  
COMMISSIONER SANDI STRAWN  
BENTON COUNTY, WASHINGTON  
at the  
U.S. DEPARTMENT OF ENERGY HEARING  
APRIL 11, 1996  
RICHLAND, WA

Re: Storage and Disposition of Weapons-Usable Fissile Materials  
Draft Programmatic Environmental Impact Statement

Good evening. My name is Sandi Strawn and I am a Benton County Commissioner. I represent the county in which most of the Hanford Reservation is located. I am providing testimony tonight on behalf of the entire Board of Benton County Commissioners.

The outbreak of peace has presented us with a decidedly better future and a significant challenge. Plutonium warheads - those very items we once felt were so necessary - now are surplus to our needs. Peace is at hand, but this country's work is not yet done.

I want to offer several pieces of input to your Draft Programmatic EIS.

1. Keep moving forward.

We are pleased to see the Department of Energy is taking steps to address this challenging set of issues. The Department has evaluated a host of potential approaches, and has made significant progress by developing the set of alternatives outlined in the Draft EIS. We applaud your effort to date, and encourage you to keep pressing ahead on this internationally important issue. The complexities of the problem should not be used as a reason for avoiding any action. The "No-Action" and "Long-term Storage" alternatives are neither acceptable nor effective.

2. Follow the recommendation of independent experts.

The National Academy of Sciences has suggested fabrication of plutonium into reactor fuel is one of the few promising alternatives in management and disposition of fissile materials.

3. We are willing to continue to do our part.

We recognize two of the critical steps in plutonium disposition could be supported at the Hanford Site. Those steps are the fabrication of mixed oxide fuel at the Fuels and Materials Examination Facility, and the fissioning of that fuel at WNP 2 and the Fast Flux Test Facility (FFTF).

As the host county government, we support the use of these facilities and the Tri-Cities area technical resources for these two activities. This should stand in contrast to the situation in Nevada, where the most notable product of intergovernmental relations has been a delay in solving national problems.

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4. The mixed oxide fuel approach is the least costly and quickest path.

As a representative of taxpayers, we urge you to use proven technologies whenever possible. When this is done, the costly steps of investigation and experimentation are avoided. The mixed oxide fuel approach has been proven viable in this country and others. No new technologies are needed, and parties have offered you their technologies and facilities to pursue this alternative. The mixed oxide fuel approach will allow us as a nation to take the biggest possible bite out of this problem with the least resources, and in the shortest period of time.

We urge you to move quickly to reduce the quantity of material which could find its way into irresponsible hands, and to quickly help the former Soviet states to reduce their stockpiles of nuclear material. The mixed oxide approach will provide the quickest demonstration of our seriousness, it will embrace a pathway that the Russians may emulate, and it will reduce stockpiles of materials.

*These are the things we are FOR. Now let me mention one we are against.*

5. Consolidation of plutonium at Hanford is not necessary.

The Draft EIS poses as an option the consolidation of all surplus plutonium materials at the Hanford Site. We strongly object to this approach. Benton County residents have been and will continue to willingly fulfill our part of the solution. We recognize our responsibilities to safety manage, stabilize, and dispose of the substantial amount of plutonium already existing at Hanford. But, we will not become the nation's dumping ground for all plutonium scrap and mixed waste. There are already enough items on our Hanford cleanup "to-do" list. Movement of plutonium materials should only occur right before treatment.

Thank you for conducting a hearing in Richland to hear from those who are most directly affected by DOE actions. We urge you to continue forward with timely development of technically sound and fiscally responsible solutions to these very important issues.

*Charles Stewart*  
4/11/94

## AMERICAN NUCLEAR SOCIETY

Position Paper Abstract - Disposition of Plutonium

### Short-Term: Surplus Weapons Plutonium

1. We strongly support conversion of all plutonium released from weapons stocks to a form in which it is protected from theft or seizure by intense radioactivity (the "spent fuel standard"). Place immediate emphasis on protecting stocks as securely as when they were active weapons. We urge that higher priority and attention be devoted to assuring that this standard is being met.
2. We recommend prompt implementation of the reactor irradiation option for disposition of surplus U.S. and Russian weapons plutonium, employing available reactors in the United States and Russia, or in third countries.
3. The time schedule for both initiation and completion of conversion should be shortened.
4. All released plutonium in the United States and Russia should be placed under international safeguards as early as possible.

### Longer-Term: Civil Plutonium

5. Energy demand, especially for electric power, is increasing steadily in the developing countries. We cannot and should not wish these countries to forgo the benefits of abundant energy that the industrial world has enjoyed for so long.
6. The use of nuclear energy will take place primarily in industrialized countries, making fossil fuel resources more accessible and affordable for use in the developing world.
7. Current proven reserves of reasonably priced uranium are insufficient to support a long-term, major contribution of nuclear energy to meeting world energy demand. Breeder reactors can overcome this limitation.
8. The issue of the proper level and structure of development on the breeder and other advanced reactor systems calls for further assessment. We urge that this be undertaken.
9. The recent U.S. decision to stop all development work on reprocessing and the breeder should be reversed.
10. The development of permanent waste repositories is essential, since these will be needed for either spent fuel or fission product waste disposal.
11. We see no need for international uniformity in selection of fuel cycle options.
12. The IAEA should place increased emphasis on containment and surveillance and other nonaccountancy safeguards measures.
13. The IAEA should be called on to review the adequacy of national measures for protection of nuclear materials against subnational threats.
14. It is essential that the IAEA be assured of the financial, technical and manpower resources and the political support necessary to carry out its increasingly vital tasks.

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4-11-96 14/3

Comments of West Lincoln Commission, Ken Berlin  
April 11, 1996 Public Meeting on Storage and  
Disposition of Weapons-Usable Fissile Materials  
Direct Representative Environmental Impact Statement

The Fast Flux Test Facility (FFTF) will need rocks  
to one metric ton per year of weapons action plutonium  
to fuel the multi-minors it will be asked to perform.  
The FFTF will use a once-through fuel system that  
converts the plutonium to a spent fuel standard. It  
will not be recycled.

These FFTF missions include tritium for national  
security, medical isotopes for cell-division cancer  
therapy and treatment of other major diseases, and  
commercial isotopes for agriculture and industry.

Advanced Nuclear and Medical Systems, called ANMS,  
is a consortium of companies negotiating with the  
Department of Energy to operate the FFTF to produce  
power, reduce minors, for use. ANMS has  
independent Congressional and professional support  
for the privatization of the FFTF.

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4-11-96 2/3

Comments of West Hilland Crumman, Ken Dobbins

ANWS has proposed an alliance with the Washington Public Power Supply System to jointly form plutonium in the FFTF and WNP-2. That proposal provides synergism between the two facilities and will use the already constructed Fuel and Materials Examination Facility, called the FMEF, for plutonium fuel management.

These facilities take advantage of the reduced security issues of all those located on the Hanford site. The FFTF and FMEF already have state-of-the-art plutonium security systems. Eleven metric tons of the plutonium is already located on the Hanford site.

The FFTF creates a training opportunity with Russia. The United States wants Russia to use a once-through fuel system and not recycle. Russia wants to burn the plutonium in their fast reactors. The FFTF would demonstrate how to convert the plutonium to a spent fuel standard without recycle. They would be permitted to do otherwise.

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Comments of West Richland Councilman, Ken Dollin

Converting weapons-usable plutonium to a spent fuel standard cooperatively with the Russians while providing medical isotopes is a win-win for both the Hanford area and the Nation.

I urge the Department of Energy to include the FFTF as a viable plutonium disposition option in the Programmatic Environmental Impact Statement on the Disposition of Weapons-Usable Fissile Materials.

Thank you,

Ken Dollin

Councilman, City of West Richland, Washington

Member, American Nuclear Society Eastern Washington  
Section, Public Information Committee

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**Comments of Richland Mayor Larry Haler  
April 11, 1996 Public Meeting on Storage and  
Disposition of Weapons-Usable Fissile Materials  
Draft Programmatic Environmental Impact Statement**

Good evening. I am Larry Haler, Mayor of Richland. I also serve as Chairman of the "Hanford Communities," an intergovernmental organization that represents the interests of cities and counties most directly affected by Hanford. As you are concluding a long day of meetings, let me extend a somewhat belated welcome to the Tri-Cities!

I have a prepared statement I would like to read and leave with you. We will be submitting written comments within the month.

The Programmatic Environmental Impact Statement, or PEIS, on Storage and Disposition of Weapons-Usable Fissile Materials is of great interest to the City of Richland and the other local governments in this area. Hanford, directly to our north, is identified as one of six DOE candidate sites for long-term storage of weapons-usable plutonium. Two of the disposition alternatives noted in the PEIS are particularly well suited to Hanford.

We would be proud to have Hanford help reduce the global nuclear weapons threat. However, we do have some misgivings. Nearly half of all Hanford workers live in Richland. I am concerned about their health and safety, as well as their economic well-being. Public safety associated with transport of radioactive materials through our communities is a factor we must consider. We must also safeguard the quality of our natural environment.

Beyond these tangible issues, we are anxious that our community not be perceived by others in the Pacific Northwest as a dumping ground for radioactive wastes. As DOE is reducing employment opportunities at Hanford, we must recruit new enterprises into this area to remain viable. Positive community image is critically important to our economic diversification efforts.

Our formal written responses to this PEIS will be carefully developed. We have appointed a technical advisory committee to explore the health and safety, transportation, and socioeconomic impacts of a new plutonium mission for Hanford. The committee began its analysis this week, and we hope to have our elected governing boards review their work and recommendations by the end of the month.

(Over, please)

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PUBLIC MEETING ORAL COMMENTS, RICHLAND, WA  
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Comments of Richland  
Mayor Larry Hilder

Page 2

Fabricating plutonium into mixed-oxide, or MOX, fuel and burning it in reactors is one of the disposal options noted in the PEIS. The Washington Public Power Supply System has made a proposal to the Department of Energy to burn a bundle of MOX fuel as a demonstration. Our City Council fully supports the Supply System in this endeavor. We also encourage DOE consider the Supply System's unfinished nuclear power plant on the Hanford Site as a second MOX fuel facility. The Fast Flux Test Facility, or FFTF, provides yet another opportunity for burning of MOX fuel. The FFTF offers additional value in the potential for production of tritium and vital medical isotopes. We also have at Hanford the "Fuel and Materials Examination Facility," or FMEF, the only facility in the country that has been designed and is available to cost-effectively manufacture MOX fuel.

As you can see, Hanford offers a complete, safe, and secure industrial complex capable of storing plutonium, manufacturing and burning MOX fuels, vitrifying waste products, and handling spent fuel. The Supply System and private companies have indicated interest in participating in this important endeavor. We have a talented and experienced work force and the industrial infrastructure necessary to perform a plutonium storage and disposal mission. Assuming we achieve necessary public understanding and support and address legitimate concerns through effective mitigative measures, I believe Hanford will prove to be well suited to play a plutonium storage and disposal mission.

In closing, I should mention that the short timeline for commenting on the PEIS has made our review particularly difficult. One problem is that there are very few copies of the PEIS currently available. We have requested additional copies for our committee and hope to receive them soon. I hope you will consider extending the comment period to give the public better opportunity to participate.

Thank you again for the opportunity to provide comments this evening. We will be carefully evaluating this opportunity for Hanford to be of service to the nation. You can expect a thoughtful written response to the PEIS from us.

WM-001



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
1315 W. 4th Avenue • Kentonick, Washington 98116-6018 • (509) 735-7581

**Comments on Plutonium PEIS**

April 11, 1996  
Presented by Max S. Power  
Nuclear Waste Program

My name is Max Power. I represent the Washington State Department of Ecology, and I am presenting the agency's comments.

I want to begin by stressing three basic points, based on positions taken by Governor Lowry at the time of scoping (August 1994) and the Plutonium Roundtable (October 1995):

- **Nonproliferation:** Action to convert weapons usable plutonium to form that discourage weapons use is urgent. The United States needs to be seen to be acting forcefully and with public support to assure that this material is not available for reuse in nuclear weapons. The consequences of *not* acting are immense.
  - **Equity.** All the states and regions of the country benefited from the defense provided by nuclear weapons. Now all need to share in an equitable way in the overall costs and risks of closing the circle on production of nuclear weapons material. Washington State has borne more than its share of the costs and risks in the past. We have both expertise and facilities that can help deal with plutonium and radioactive wastes, but we are only willing to play a role if others assume their fair share of the burdens.
  - **Cleanup commitments.** Washington will not accept additional burdens on Hanford that detract from or delay commitments to cleanup the legacy of past contamination.
- Within this context, we offer these specific comments on the PEIS:
1. We appreciate the effort USDOE has made to provide public discussion on complex issues. As selection of disposition options proceeds, DOE should use information such as that developed in the draft PEIS to inform a broader national equity dialogue. Decisions about plutonium storage and disposal must be made in the broader context of such a dialogue, dealing with treatment storage and disposal of all surplus nuclear materials and wastes.

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2. We encourage DOE to take a conservative approach on storage options. It does not make sense to ship significant quantities of plutonium to a consolidated or collocated storage site, only to have to ship most of it again to yet another site for disposition. Near-term emphasis should be on selection of a disposition approach; long-term storage decisions can then be linked to the configuration of the disposition system.
3. Ecology commends DOE for the level of analysis and documentation in the PEIS:
  - a good basis for assessing generic disposition alternatives
  - recognizes need for additional NEPA documentation to select disposition sites
  - sufficient analysis to evaluate storage options once disposition path selected
4. We also emphasize the need to identify the full extent of risks, costs, technology development needs, and further requirements for public decision-making. This should be an important document contributing to public awareness and national equity dialogue.
  - The PEIS includes information that puts plutonium disposition in context of the legacy of weapons production. E.g. substantial information about wastes, storage facilities, etc. at candidate sites.
  - The PEIS makes reasonable efforts to identify emissions and waste streams from proposed storage, treatment, and disposal facilities. DOE is to be commended for using appropriate site-specific data in the conceptual analysis of the disposition options.
  - However, we are concerned that some materials may not be covered in this PEIS or others
5. Therefore, we ask DOE to clarify how—and how much of—Hanford plutonium stock is included.
  - Fig. 1.1.1-1 indicates 1.7 t of Hanford Pu identified as "surplus". There is approximately another 2.1 t in forms other than spent fuel. Some may be concentrated and become surplus; some may become waste. It is not clear that the latter category, which is explicitly beyond the scope of this PEIS, is included in other programmatic documents.
  - The PEIS needs more explicit discussion about the implications of non-pit forms of plutonium for the configuration of storage, treatment, and disposal options.

In conclusion, the disposal option, or combination of options, selected should:

  - minimize overall risk to public and worker health, and to the environment;
  - take account of equity among sites and regions;
  - not divert resources from or delay cleanup of past contamination at nuclear weapons production sites;
  - have a clear and reasonable path forward to develop and implement the technology; and
  - accommodate the plutonium metal scrap and other forms that could nonetheless be used in weapons.

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**Public Meeting Comments**

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Afternoon Meeting- April 17, 1996

**Plenary Session**

C: Most of the 14 tons of nuclear material at Rocky Flats is considered surplus and represents a concern. A decision needs to be made to treat this material as a waste: it is toxic and not a resource. The material needs to be put into a form that renders it proliferation resistant as quickly as possible. The options presented in the Storage and Disposition draft Programmatic Environmental Impact Statement are not viable options to obtain this objective. Geological repositories are not available and disposition options are reversible. The mixed oxide fuel option has many flaws. Mixed oxide fuel: 1) Is more costly than uranium; 2) Creates an opportunity for theft of plutonium; 3) Presumes that the material can be deposited in Yucca Mountain; 4) Generates heavy plutonium that may be attractive to other governments in the future; and 5) Needs to be safeguarded against criticality conditions. The risks outweigh any resource considerations. The electrometallurgical technology option should be rejected. DOE needs further research before the vitrification and ceramic technologies can be considered viable. The material needs to be put into a stable form for storage, but containers analyzed are only good for 50 years. DOE needs to focus on storage since no feasible disposition options are available. The technology alternatives need considerably more research and should be addressed in international dialogue.

1/01.00.00

2/08.03.01

3/08.03.01

4/08.03.01

5/08.03.01

6/14.00.00

**Afternoon Meeting  
 Breakout Session**

C: The draft Programmatic Environmental Impact Statement process continues to appear fragmented and convoluted. A particular concern that results from this fragmentation is that reprocessing is not comprehensively addressed in the Storage and Disposition draft Programmatic Environmental Impact Statement or addressed in any of the Programmatic Environmental Impact Statements. The use of electrometallurgical treatment as a reprocessing option, commonly referred to as "pyroprocessing," should have been considered under an Environmental Impact Statement instead of an Environmental Assessment. Another area that needs more attention from DOE is in their treatment of tribes as nations. DOE should notify tribes residing in the areas of proposed activities early in the process on a government-to-government basis, so that impacts of the actions can be reviewed against treaties with the individual tribes.

7/01.00.00

8/08.00.00

9/08.02.00

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**01 00 00 Comment Number 1**

The materials at RFETS would be stabilized under DOE's Environmental Management Program before they are packaged and shipped to the storage site(s) pursuant to this PEIS.

**08 03 01 Comment Number 2**

The Department of Energy acknowledges the commentor's opposition to the disposition alternatives. However, NEPA requires that DOE look at all reasonable alternatives and, therefore, reactor burning and immobilization must be considered. Suitability of waste forms for disposal in a geologic repository has been analyzed and is included in Appendix H of the PEIS. 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 3**

The Department of Energy acknowledges the commentor's opposition to 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, and public input.

**08 03 01 Comment Number 4**

Research and development is both on-going and planned to support the disposition alternative. If either the vitrification or ceramic technology is selected, the ROD would include pilot facilities as a means of learning more about these technologies.

**08 03 01 Comment Number 5**

The Department of Energy acknowledges the commentor's support for the continued storage of surplus Pu (No Action Alternative). The materials would be stabilized and packaged for the long-term storage timeframe. Decisions on

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C: The Shoshone Tribe is against pyroprocessing technology being developed to dispose of nuclear material because it can be used to separate highly enriched uranium and plutonium from spent nuclear fuel. It should not be considered as an alternative in the Storage and Disposition draft Programmatic Environmental Impact Statement.	3/08.03.01 cont.
C: I would like to see DOE develop an outline for nonproliferation like the outline used in the long-term storage and disposition impacts fact sheet. The fact sheet outline goes through some of the categories addressed in the draft Programmatic Environmental Impact Statement. It would be useful for DOE to develop a standard framework that everyone agrees on in terms of analysis, which would outline the nonproliferation impacts that are trying to be measured. This would be useful to DOE even beyond the Storage and Disposition draft Programmatic Environmental Impact Statement.	10/01.00.00
C: DOE should provide the public with draft copies of the other analyses being prepared in parallel with the Environmental Impact Statement, and broaden the public support and involvement in the decisionmaking process.	11/08.00.00
C: I represent the Military Production Network. We sued DOE in an effort to have an integrated presentation of their proposed activities and to get public involvement in the process as required by National Environmental Policy Act. We have found the fallout of this action is what we call "participation proliferation," and unfortunately a further fragmentation of the issues. For example, the increase of waste resulting from the different programs is being addressed separately and not cumulatively. We, therefore, feel that the National Environmental Policy Act process is deteriorating as is DOE's image of open mindedness, primarily because the current approach is not addressing connections of various actions and is not comprehensive.	12/08.00.00
C: It is hard to comment on one Environmental Impact Statement when they are all interrelated.	
C: It is important that the Federal Government conduct ongoing epidemiological studies of impacts within a 10 mile radius of the various sites.	13/09.10.08
C: We are making a strategic mistake downsizing the weapons complex. There is no "New World Order". Red China is the largest communist state ever, and Boris Yeltsin may soon be removed from office. I think history will show that it was wrong to downsize our military.	
C: Some of what might be called fragmentation has in fact improved the efficiency of DOE activities. The Disposition of Highly Enriched Uranium Environmental Impact Statement is a prime example. It was a good idea to handle highly enriched uranium separately from plutonium because it was more appropriate to address disposition of weapons highly enriched uranium and weapons plutonium separately.	14/01.00.00

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disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

**14 00 00                      Comment Number 6**

Comment noted. The United States currently has a joint effort with Russia to assess the technical feasibilities of the various Pu disposition alternatives including plans for joint demonstration of some of the technologies. The success of this joint effort would provide the basis for negotiation with other nations.

**01 00 00                      Comment Number 7**

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. However, consistent with U.S. policy not to reprocess spent nuclear fuel, the spent fuel from burning MOX in reactors will be disposed of in a geologic repository along with other domestic spent fuel.

**08 00 00                      Comment Number 8**

The Department of Energy's evaluation of the electrometallurgical process for purposes other than disposition of fissile materials is outside of the scope of this PEIS.

**08 02 00                      Comment Number 9**

The Department of Energy recognizes the special status of the American Indian tribes in relation to the Federal government. DOE has issued specific guidance for full involvement of tribes in the NEPA process. Further, DOE has prepared a detailed listing of the tribes that could be affected by Proposed Actions. All of the tribes on that list, and others who have indicated an interest in storage and disposition of weapons-usable fissile materials, have been notified about the PEIS on a regular basis.

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C: Today's *Washington Post* had an article on the danger of nonproliferation. It appears that even the draft Programmatic Environmental Impact Statement process is adding to the threat because it delays appropriate actions being made in an efficient and direct manner and thereby increases the risk of others getting at it.

15/08.03.00

C: In a lecture at Stanford University, Professor Wolfgang Stohl of Germany summarized the results of an Electric Power Research Institute report on European countries in the nuclear business. He stated that mixed oxide fuel is commonly used there under even difficult conditions. The European impression of the United States' policy is that we have our head in the sand and need to control, rather than ignore, the technology.

16/01.06.00

Afternoon Meeting  
Summary Session

No summary session

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01 00 00                      **Comment Number 10**

Comment noted. DOE will use analyses to assess domestic and international policy impacts (including Nonproliferation Policy) and the Proposed Action described in the PEIS to support the ROD.

08 00 00                      **Comment Number 11**

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 00 00                      **Comment Number 12**

The combining of meetings was done at the specific request of the public near several DOE sites and was not considered to have any negative impact on the public review process. This request was based upon a need to hear how these documents were related to one another and to avoid requiring public attendance at several meetings spanning several days. The Draft PEIS and reference documents were made available in advance of the public meetings.

09 10 08                      **Comment Number 13**

The Federal Government, as well as other local governments and interested organizations, has conducted or sponsored relevant epidemiology studies for various sites analyzed and considered for Pu storage and disposition alternatives. These studies are described in Section M.4 of the PEIS. In addition, any site selected for a storage or disposition alternative will continue to have an extensive environmental monitoring program to ensure that any releases associated with normal facility operations will not impact human health.

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Morning Meeting - April 18, 1996

Plenary Session

C: Regarding the new DOE policy on integrated hearings particularly from a budgetary standpoint, the integration of hearings may be useful and interesting. However, this integration has made the opportunity for the public dialogue more difficult and less substantive. The Programmatic Environmental Impact Statements become longer and more technical as they progress throughout the National Environmental Policy Act process. Greenpeace does not like this format.

17/08.02.00

Morning Meeting  
Breakout Session

C: I am not saying that the United States add capacity, just that we utilize the existing excess capacity. It will take seven to ten years to build a reactor, and approximately another fifteen years to complete the whole process. The United States is then looking at a twenty-five year time frame. During this twenty-five year time frame, the foreign excess capacity could be used to eliminate the materials.

18/06.01.09

C: Other comments I have are: 1) The statement in the document that a "mixed oxide fuel fabrication facility must be built", should instead state *may* instead of *must*; 2) There will be no increase in spent fuel with or without reactors using mixed oxide fuel. The waste forms will be the same; 3) Credit should be given to displacement of uranium fuel that would have to be mined, milled, enriched, fabricated, and transported; 4) Mixed oxide fuel will use excess tails; 5) There will be no impacts on shipping, the same amount of material will be shipped to the reactors as is now; 6) The reactor option is the only one that reduces the fissile content; 7) The reactor option ensures closely reaching disposition as defined by the spent fuel standard in the document; and 8) The document needs to further explain that plutonium could be recovered from immobilization and vitrification.

19/06.01.08

20/09.11.08

21/09.11.08

22/10.00.00

23/08.03.01

24/05.00.08

20/09.11.08

cont.

25/10.02.00

C: Tables in the document incorrectly show an increase in the amount of spent fuel. Also, if the number of assemblies being transported is the same and DOE transports the material in a more safe secure environment, it would seem to me the fatalities should go down.

26/01.06.00

C: Many environmental and nonproliferation organizations would like to preclude the foreign option. The use of international plutonium facilities are antithetical to the United States policy. The European's have huge environmental problems. There are several questions to be answered before foreign industries can be used. The use of foreign industries is a proliferation risk. I am concerned with the safety issues of shipping the plutonium. However, this does not

27/10.00.00

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01 00 00

Comment Number 14

Comment noted.

08 03 00

Comment Number 15

It is critical that DOE make good, sustainable decisions on the important issues related to the storage and disposition of weapons-usable fissile materials. Part of making good decisions is presenting the decisionmaker with the environmental impacts of taking action based upon a range of reasonable alternatives. Therefore, the time and money used in determining the potential impacts on our environment is well spent. The value of informed decisionmaking outweighs the risk of delay caused by the study.

01 06 00

Comment Number 16

Comment noted.

08 02 00

Comment Number 17

The Department of Energy acknowledges the commentator's concern about the integration of public meetings on draft EISs. The joint meetings on the Storage and Disposition PEIS, the Stockpile Stewardship and Management PEIS, and the Pantex EIS were held using an integrated format at the request of several organizations and citizen advisory boards. They stated that such meetings "would be more convenient and provide a less confusing format for public participants. It would avoid duplication, permit a much more efficient use of the public's time and allow a more informed decision about the issues."

06 01 09

Comment Number 18

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

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seem to be a concern to DOE. The cost and time frame is immense. DOE needs to get on track and not be sidetracked with suggestions of using foreign industries.

C: There is an urgency to this problem. DOE could reassure the public that the problem is being solved if the mixed oxide option is chosen. DOE should not preclude any option even if it is controversial. The foreign option should be considered if it is the quickest way to get on with the job. I support the mixed oxide option. 18/06.01.09 cont.

C: As the population grows, you can project the need for future energy and the life expectancy of current facilities. New capacity will be needed in the future. Energy Information Agency projections show the electricity need and market.

C: There is no indication of the parameters considered for the environmental impact on global change. As for the questions of whether there a need for energy - the answer is yes, demographics show the need through the continued growth of the country. Present facility life shows there will be the need for new facilities and/or capacity of this material. The carbon dioxide release number should be an important factor for evaluating the options. I understand that if plutonium is substituted for uranium in present plants that there would be no net environmental change on carbon dioxide from a global climate change. However, if a plant is partially completed or an advanced plant is put online, there would be a net change in the total carbon dioxide release. 28/09.00.08 29/09.03.08

C: There should be a broader scope of multi-purpose reactors in the final Programmatic Environmental Impact Statement. 30/01.00.00

C: There have been numerous documents which have looked at overseas facilities regarding nonproliferation and the development of National Environmental Policy Act documents. Should there be any consideration of overseas facilities, I would hope that the nonproliferation concerns are included in the assessment. 26/01.06.00 cont.

Q: Have decommissioning and decontamination costs been considered for all options, such as processing facilities, deep boreholes, vitrification, and reactors, when some of these options will not have decontamination and decommissioning costs associated with them? Is DOE considering that by the United States not participating in this technology and not having a technological lead that the United States is abandoning its right to participate in nonproliferation issues in the world? (Note: No response was provided at the at the meeting to these questions.) 31/07.00.00 32/05.01.08

C: I am concerned about cost information availability and the comment period ending before this information is available. This seems to circumvent the whole National Environmental Policy Act process. The driver for this is not nonproliferation, although you (DOE) imply that nonproliferation should be the driver. The point of the National 33/08.00.00

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reduction in world inventories of separated Pu. Hence, the statement that Europe has no excess MOX fuel 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 fuel fabrication. Therefore, the United States may not be able to rely on the use of existing European MOX fuel 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 01 08 Comment Number 19

Comment noted. DOE is considering the construction of a new facility for MOX fuel fabrication using surplus weapons-usable Pu, but also considers the conversion of existing facilities for MOX fuel fabrication with surplus weapons-grade Pu. Table 2.4-1 of the PEIS provides a brief description for variants, including "modification/completion of existing facilities for MOX fabrication."

09 11 08 Comment Number 20

The MOX fuels designed for serving Pu disposition would not stay in the reactors' cores for recovering their full economic values. The MOX fuel cycle for the purpose of Pu disposition for each refueling would be shorter than the current typical commercial nuclear power plants. The data developed for this PEIS assumed that the MOX fuel bundles would be removed as soon as the fuel had been irradiated to the point where it had met the Spent Fuel Standard. This assumption, resulting in a greater amount of spent fuel from the reactors, was used in order to bound the impacts for spent fuel generation and storage. Also, it would dispose of the excess weapons-usable fissile materials as quickly as possible.

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Environmental Policy Act is public input; therefore, all of the information needed to make responsible and substantive comments should be available at the same time. Other DOE Environmental Impact Statements have shown the nonproliferation concerns in the document and this one does not.

33/08.00.00  
cont.

C: Prior National Environmental Policy Act documents including the Foreign Research Reactor Spent Nuclear Fuel Environmental Impact Statement and the Environmental Assessment on Electrometallurgical Treatment all incorporated specific sections on proliferation.

C: The Russians have a different problem, they do not have light water reactors. They have mixed mononitride reactors; and there are some advantages to them. DOE should consider this option.

34/14.00.00

C: Mixed oxide fuel is used in reactors. However, experience relating to the use mixed oxide fuels in reactors is not in the private/public domain, so the public cannot analyze it. The information on mixed oxide fuel technology should be made available to the public through the National Environmental Policy Act, if DOE has access to the proprietary technical information.

35/08.00.00

**Morning Meeting  
Summary Session**

No summary session

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**09 11 08                      Comment Number 21**

The Avoided Impacts section of the PEIS (Section 4.9) has been updated not only to include avoided human health impacts from mining, milling, and enrichment operations, but avoided air quality impacts, avoided waste generation, and other avoided environmental impacts. This section includes the displacement of uranium fuel by MOX fuel.

**10 00 00                      Comment Number 22**

The intersite transportation for existing LWR includes only transportation of material to pit disassembly/conversion and Pu conversion sites and transportation of material to the MOX fuel fabrication site since transportation from the fuel fabrication site and spent fuel transportation is already occurring. For the partially completed LWR, all transportation steps are included (to pit disassembly/conversion and Pu conversion, to the MOX fuel fabrication site, to the reactor, and to the repository) since no transportation is currently involved for the partially completed reactors (not in operation).

**08 03 01                      Comment Number 23**

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.

**05 00 08                      Comment Number 24**

The recoverability of Pu from each of the disposition alternatives is discussed in results of nonproliferation reviews which were published in fall 1996, and are included in the decisionmaking process. This nonproliferation report is included with other supporting documents in the DOE Public Reading Rooms.

**10 02 00**                      **Comment Number 25**

The number of fatalities is based on several factors including the radiation environment of the package, the type of package used, type of vehicle, number of miles to be traveled, and the type of roads to be traveled. The PEIS evaluates the transport of MOX fuel assemblies and the associated blendstock to the fuel fabricator and then to the reactor site. After the fuel assemblies have been burned up in a reactor for the transportation analysis, the MOX spent fuel assemblies are assumed to be identical to uranium spent fuel assemblies. The same vehicles and packages will be used and all factors are assumed to be identical.

**01 06 00**                      **Comment Number 26**

The two disposition alternatives that would involve foreign industries are the CANDU Reactor Alternative and the Existing LWR Alternative using foreign MOX fuel fabrication. In the former case, Canada as a nonnuclear weapons state, would burn both U.S. and Russian Pu in heavy water reactors. This alternative would require final approval from the Canadian Government. Both the U.S. and Canadian Governments would oversee the operations which would comply with domestic and international inspections and the Nonproliferation Policy. In the latter case, MOX fuel fabrication in existing European facilities would be conducted for a limited period of time pending availability of a domestic MOX fuel fabrication facility. The shipment and handling of Pu and fabrication of MOX fuel would likewise be conducted in accordance with international inspections and safeguards regimes.

**10 00 00**                      **Comment Number 27**

The use of British and/or French facilities to produce MOX fuel is a viable option, and therefore included in the PEIS. Their facilities are readily available and currently producing nuclear fuel; this is a clear short-term advantage. Measures would be taken to safeguard materials throughout the production cycle. Nuclear industry-owned ships, specifically designed to transport radioactive materials, could be used to ensure appropriate safety and security of the cargo. Although cost is not the principal factor, there is little reason to believe that cost would be significantly higher for this method versus other MOX fuel production options. If this method is considered further, a cost analysis would be conducted prior to implementation.

**09 00 08                      Comment Number 28**

The scope of this PEIS is to analyze the environmental impacts at each candidate or representative site as described in Chapter 3 of the PEIS. The general approach and specific methods for assessing environmental consequences, along with estimated results and potential cumulative impacts, are presented in Chapter 4. The information and environmental analyses are intended to address all significant issues raised during the scoping process. The general environmental impact on global change is beyond the scope of this PEIS with the exception of transportation. There is a description of the impact on Global Commons in Appendix G.

**09 03 08                      Comment Number 29**

The net outputs of carbon dioxide using MOX fuel in an existing operating reactor, a partially completed reactor, or an advanced reactor during operation would be similar. The construction involved with completing a partially completed reactor or constructing an advanced reactor would produce a net gain of carbon dioxide. On a global scale, the gain would be minimal. The production of electricity from any operating reactor would significantly reduce carbon dioxide emissions relative to a similarly sized fossil fueled power plant.

**01 00 00                      Comment Number 30**

Comment noted.

**07 00 00                      Comment Number 31**

Cost data, along with technical and schedule data, were provided in Technical Summary Reports of both storage and disposition beginning in late July 1996. D&D costs were also included, where appropriate, in the cost evaluations included in the Technical Summary Reports.

**05 01 08                      Comment Number 32**

The United States is strongly committed to participation in nonproliferation issues. The United States is fully engaged in the IAEA, and the President has committed to offering surplus fissile materials for IAEA safeguards.

**08 00 00**

**Comment Number 33**

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.

**14 00 00**

**Comment Number 34**

During the screening process to select reasonable alternatives for evaluation in the PEIS, several advanced reactor options including mononitride reactors were considered. However, because the technology of the mononitride reactors needs further development which would involve time and cost, this option was considered less reasonable than other reactor options using existing or more mature technologies.

**08 00 00**

**Comment Number 35**

All of the source material used in preparing the PEIS is available to the public in DOE Public Reading Rooms or upon request to DOE. DOE has used open, publicly available information to the maximum extent possible. No commercial organization's proprietary information was used in preparing the PEIS.