

Final Environmental Impact Statement for the Surplus Plutonium Disposition Program

December 2023



K - Area at Savannah River Site



PF - 4 at Los Alamos National Laboratory



U.S. Department of Energy
National Nuclear Security Administration

COMMENTS AND RESPONSES ON THE DRAFT SPDP EIS

Volume 3

COVER SHEET

Responsible Federal Agency: U.S. Department of Energy (DOE) / National Nuclear Security Administration (NNSA)

Title: Final Environmental Impact Statement for the Surplus Plutonium Disposition Program (Final SPDP EIS) (DOE/EIS-0549)

Locations: New Mexico, South Carolina, Texas, and Tennessee

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This document is available for viewing and downloading on the NNSA NEPA Reading Room Website (<https://www.energy.gov/nnsa/nnsa-nepa-reading-room>), the DOE NEPA website (<https://www.energy.gov/nepa/doeeis-0549-surplus-plutonium-disposition-program>), the Savannah River Site website (<https://www.srs.gov/general/pubs/envbul/nepa1.htm>), and the Los Alamos National Laboratory website (<https://www.lanl.gov/environment/public-reading-room.php>).

- Abstract:** The National Nuclear Security Administration (NNSA), a semi-autonomous agency organized in 2000 within the United States (U.S.) Department of Energy (DOE),¹ works to prevent nuclear weapon proliferation and reduce the threat of nuclear and radiological terrorism around the world. NNSA's Office of Defense Nuclear Nonproliferation works globally to prevent state and non-state actors from developing nuclear weapons or acquiring weapons-usable nuclear or radiological materials, equipment, technology, and expertise. Among other missions, NNSA is engaged in a program to disposition U.S. surplus weapons-grade plutonium (referred to in this Surplus Plutonium Disposition Program Environmental Impact Statement (SPDP EIS) as "surplus plutonium"). NNSA has prepared this document (DOE/EIS-0549) pursuant to the *National Environmental Policy Act* of 1969 (NEPA) (42 United States Code 4321 et seq.), to evaluate the potential environmental impacts of the disposition of plutonium that is surplus to the defense needs of the United States.

DOE's purpose and need for action is to safely and securely disposition plutonium that is surplus to the Nation's defense needs so that it is not readily usable in nuclear weapons.

- Preferred Alternative:** NNSA's Preferred Alternative to meet the purpose and need is implementation of the dilute and dispose strategy for the full 34 metric tons of surplus plutonium

¹ In this SPDP EIS, DOE's NNSA is referred to as NNSA for the sake of brevity.

(DOE 2018). The effort would require new, modified, or existing capabilities at the Pantex Plant, Los Alamos National Laboratory, Savannah River Site, Y-12 National Security Complex, and the Waste Isolation Pilot Plant facility. Four sub-alternatives to the Preferred Alternative are considered in this environmental impact statement (EIS). The sub-alternatives differ based on the location (Los Alamos National Laboratory or Savannah River Site) for the processing activities. The sub-alternatives were selected so that the analyses presented in this EIS would bound the impacts (including impacts from transportation) that would occur if either site or a combination of the sites was used (i.e., if some of the 34 metric tons of surplus plutonium is processed at one site and the remainder is processed at the other site).

- **Public Involvement:** In preparing this Final SPDP EIS, NNSA considered comments received during the scoping period (December 16, 2020 through February 18, 2021), during the public comment period on the Draft SPDP EIS (December 16, 2022 through March 16, 2023), and late comments received after the close of the public comment period but prior to May 2023. NNSA held in-person public hearings in Aiken, South Carolina (January 19, 2023), Carlsbad, New Mexico (January 24, 2023), and Los Alamos, New Mexico (January 26, 2023). In addition, NNSA held an internet-based virtual public hearing (with telephone access) on January 30, 2023. This Final SPDP EIS contains revisions and new information based in part on comments received on the Draft SPDP EIS. Volume 3 contains reproductions of comments, summaries of the comments, and NNSA's responses to the comments. NNSA will use the analysis presented in this SPDP EIS, as well as other information, in preparing a Record of Decision regarding the disposition of 34 metric tons of surplus plutonium.

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ABBREVIATIONS AND ACRONYMS

°C	degree(s) Celsius
°F	degree(s) Fahrenheit
ac	acre(s)
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ADT	average daily vehicle trip
AEI	Area of Environmental Interest
ALARA	as low as reasonably achievable
APCS	Abandonment of Panel Closures in the South
ARIES	Advanced Recovery and Integrated Extraction System
AROD	Amended Record of Decision
ATSDR	Agency for Toxic Substances and Disease Registry
ATWIR	Annual TRU Waste Inventory Report
BLM	Bureau of Land Management
BMP	best management practice
C&P	characterization and packaging
CAA	Clean Air Act
CBFO	(DOE) Carlsbad Field Office
CCC	criticality control container
CCO	criticality control overpack
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	<i>Code of Federal Regulations</i>
CH-TRU	contact-handled transuranic
Ci	curie(s)
cm	centimeter(s)
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
CRA	Compliance Recertification Application
CRMP	Cultural Resources Management Plan
CSWTF	Central Sanitary Wastewater Treatment Facility
CY	calendar year
dBA	A-weighted decibel
DD&D	deactivation, decontamination, and decommissioning
DHF	Drum Handling Facility
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DSA	documented safety analyses
EA	environmental assessment
EEG	Environmental Evaluation Group

Abbreviations and Acronyms

EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FGR	Federal Guidance Report
FM	Farm-to-Market (Road)
FR	<i>Federal Register</i>
ft	foot (feet)
ft ³	cubic foot (feet)
FWS	U.S. Fish and Wildlife Service
FY	fiscal year
<i>g</i>	acceleration due to gravity
g	gram(s)
gal	gallon(s)
gal/yr	gallon(s) per year
GHG	greenhouse gas
gpd	gallon(s) per day
gpm	gallon(s) per minute
GWP	global warming potential
HAP	hazardous air pollutant
HEPA	high-efficiency particulate air (filter)
HEU	highly enriched uranium
HLW	high-level (radioactive) waste
hr	hour(s)
HVAC	Heating, ventilation, and air-conditioning
ICRP	International Commission on Radiological Protection
ID	identification
in.	inch(es)
IPCC	Intergovernmental Panel on Climate Change
KAC	K-Area Complex
KBI	K-Area bounding isotopic
kg	kilogram(s)
KIS	K-Area Interim Storage
km	kilometer(s)
L	liter(s)
LANL	Los Alamos National Laboratory
lb	pound(s)
LCF	latent cancer fatality
LLW	low-level (radioactive) waste
LOS	level of service
LSC	Logistical Support Center
LWA	Land Withdrawal Act
m	meter(s)

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m/s	meter(s) per second
m ³	cubic meter(s)
MACCS	MELCOR Accident Consequence Code System
MAR	material at risk
MEI	maximally exposed individual
MFFF	Mixed Oxide Fuel Fabrication Facility
mi	mile(s)
MLLW	mixed low-level (radioactive) waste
MOX	mixed oxide
mpg	mile(s) per gallon
mph	mile(s) per hour
mrem	millirem
MT	metric ton(s)
MVA	mega volt amp(s)
MW	megawatt(s)
MWh	megawatt-hour(s)
MWh/yr	megawatt-hour(s) per year
NAAQS	National Ambient Air Quality Standard
NAS	National Academy of Sciences
NDA	nondestructive assay
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHSM	National Seismic Hazard Model
NMED	New Mexico Environment Department
NNSA	National Nuclear Security Administration
NNSS	Nevada National Security Site
NOA	Notice of Availability
NOI	Notice of Intent
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPMP	non-pit metal processing
NRC	U.S. Nuclear Regulatory Commission
NRHP	National Register of Historic Places
ODS	ozone-depleting substances
OPT	Office of Packaging and Transportation
ORR	Oak Ridge Reservation
OST	NNSA's Office of Secure Transportation
PA	Programmatic Agreement
Pantex	Pantex Plant
PCB	polychlorinated biphenyl
pCi	picocurie(s)
PDC	pit disassembly and conversion

Abbreviations and Acronyms

PDCF	Pit Disassembly and Conversion Facility
PDP	pit disassembly and processing
PEIS	programmatic environmental impact statement
PF-4	Plutonium Facility-4
PGA	peak ground acceleration
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
PMDA	Plutonium Management and Disposition Agreement
PSHA	probabilistic seismic hazard analysis
psig	pounds per square inch gauge
Pu	plutonium
PuE	plutonium-239 dose equivalent
RCRA	Resource Conservation and Recovery Act
REAC/TS	Radiation Emergency Assistance Center/Training Site
rem	roentgen equivalent man
RH-TRU	remote-handled transuranic
RLUOB	Radiological Laboratory/Utility/Office Building
RLWTF	Radioactive Liquid Waste Treatment Facility
ROD	Record of Decision
ROI	region of influence
s	second(s)
S&D	storage and disposition
SA	supplement analysis
SC	South Carolina
SCDHEC	South Carolina Department of Health and Environmental Control
SC-GHG	social cost of greenhouse gas
SEIS	supplemental environmental impact statement
SHPO	State Historic Preservation Office(r)
SNL	Sandia National Laboratories
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SPD EIS	<i>Surplus Plutonium Disposition Final Environmental Impact Statement (1999)</i>
SPD SEIS	<i>Surplus Plutonium Disposition Supplemental Environmental Impact Statement (2015)</i>
SPD	surplus plutonium disposition
SPDP	Surplus Plutonium Disposition Program
SR	State Route
SRPPF	Savannah River Plutonium Processing Facility
SRS	Savannah River Site
SWEIS	Site-Wide Environmental Impact Statement
SWPPP	stormwater pollution prevention plan

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SWSP	Sanitary Wastewater System Plant
SWTP	Sanitary Wastewater Treatment Plant
T	ton(s)
TA	Technical Area
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCP	Traditional Cultural Property
TDEC	Tennessee Department of Environment and Conservation
TRU	transuranic
TRUPACT-II	Transuranic Package Transporter Model-II
TSCA	Toxic Substances Control Act
TWF	Transuranic Waste Facility
U.S.	United States
U.S.C.	United States Code
USGS	United States Geological Survey
VOC	volatile organic compound
VTR	Versatile Test Reactor
WAC	Waste Acceptance Criteria
WebTRAGIS	Web Transportation Routing Analysis Geographic Information System
WG	weapons-grade
WIPP SEIS	<i>Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement</i>
WIPP	Waste Isolation Pilot Plant
WSB	Waste Solidification Building
Y-12	Y-12 National Security Complex
yd ³	cubic yard(s)
yr	year(s)
ZPPR	Zero Power Physics Reactor

CONVERSION TABLE

Metric to English			English to Metric		
Multiply	by	to get	Multiply	by	to get
Area					
Square meters	10.764	square feet	square feet	0.092903	square meters
Square kilometers	247.1	acres	acres	0.0040469	square kilometers
Square kilometers	0.3861	square miles	square miles	2.59	square kilometers
Hectares	2.471	acres	acres	0.40469	hectares
Concentration					
Kilograms/square meter	0.16667	tons/acre	tons/acre	0.5999	kilograms/square meter
Milligrams/liter	1 ^(a)	parts/million	parts/million	1 ^(a)	milligrams/liter
Micrograms/liter	1 ^(a)	parts/billion	parts/billion	1 ^(a)	micrograms/liter
Micrograms/cubic meter	1 ^(a)	parts/trillion	parts/trillion	1 ^(a)	micrograms/cubic meter
Density					
Grams/cubic centimeter	62.428	pounds/cubic feet	pounds/cubic feet	0.016018	grams/cubic centimeter
Grams/cubic meter	0.0000624	pounds/cubic feet	pounds/cubic feet	16,018.5	grams/cubic meter
Length					
Centimeters	0.3937	inches	inches	2.54	centimeters
Meters	3.2808	feet	feet	0.3048	meters
Kilometers	0.62137	miles	miles	1.6093	kilometers
Radiation					
Sieverts	100	rem	rem	0.01	sieverts
Temperature					
Degrees Celsius (C)	Multiply by 1.8 and then add 32	degrees Fahrenheit (F)	degrees Fahrenheit (F)	Subtract 32 and then multiply by 0.55556	degrees Celsius (C)
Velocity/Rate					
Cubic meters/second	2,118.9	cubic feet/minute	cubic feet/minute	0.00047195	cubic meters/second
Grams/second	7.9366	pounds/hour	pounds/hour	0.126	grams/second
Meters/second	2.237	miles/hour	miles/hour	0.44704	meters/second
Volume					
Liters	0.26417	gallons	gallons	3.7854	liters
Liters	0.035316	cubic feet	cubic feet	28.316	liters
Liters	0.001308	cubic yards	cubic yards	764.54	liters

Conversion Table

Metric to English			English to Metric		
Multiply	by	to get	Multiply	by	to get
Cubic meters	264.17	gallons	gallons	0.0037854	cubic meters
Cubic meters	35.315	cubic feet	cubic feet	0.028317	cubic meters
Cubic meters	1.3079	cubic yards	cubic yards	0.76456	cubic meters
Cubic meters	0.0008107	acre-feet	acre-feet	1,233.49	cubic meters
Weight/Mass					
Grams	0.035274	ounces	ounces	28.35	grams
Kilograms	2.2046	pounds	pounds	0.45359	kilograms
Kilograms	0.0011023	tons (short)	tons (short)	907.18	kilograms
Metric tons	1.1023	tons (short)	tons (short)	0.90718	metric tons
English to English					
Acre-feet	325,850.7	gallons	gallons	0.000003046	acre-feet
Acres	43,560	square feet	square feet	0.000022957	acres
Square miles	640	acres	acres	0.0015625	square miles

(a) This conversion is only valid for concentrations of contaminants (or other materials) in water.

Note: Conversion factors have been rounded to an appropriate number of significant digits for each conversion given the order of magnitude of the conversion.

1.0 COMMENT RESPONSE PROCESS AND SUMMARY

In preparing an environmental impact statement (EIS), regulations established by the Council on Environmental Quality (40 CFR 1501.7) and the U.S. Department of Energy (DOE) (10 CFR Part 1021) require a process to obtain comments on the Draft EIS before it is finalized. The scoping phase and the public review of the Draft EIS are two opportunities for public, governmental entities including Native American Tribes, and other stakeholders to provide input on the content of the EIS.

1.1 Public Review of Draft Surplus Plutonium Disposition Program EIS

The public review period of the National Nuclear Security Administration's (NNSA's) *Draft Surplus Plutonium Disposition Program EIS* (SPDP EIS) was initiated on December 16, 2022 by the U.S. Environmental Protection Agency's publication of a Notice of Availability in the *Federal Register* (FR; 87 FR 77106). The public comment period initially ran until February 14, 2023 and was extended until March 16, 2023.

The public was notified that the Draft EIS was available for their review and comment as well as the location and timing of the public hearings via the following publications:

- *Federal Register* NOA (87 FR 77096)
- Newspaper ads, as listed below:
 - Los Alamos Daily Post (Los Alamos New Mexico), January 5, 2023 and January 19, 2023
 - Albuquerque Journal (Albuquerque, New Mexico), January 4, 2023 and January 20, 2023
 - Carlsbad Current-Argus (Carlsbad, New Mexico), January 4, 2023 and January 20, 2023
 - Hobbs News-Sun (Hobbs, New Mexico), January 4, 2023 and January 20, 2023
 - Rio Grande Sun (Española, New Mexico), January 5, 2023 and January 19, 2023
 - Santa Fe New Mexican (Santa Fe, New Mexico), January 4, 2023 and January 24, 2023
 - Aiken Standard (Aiken, South Carolina), January 4, 2023 and January 17, 2023
 - The State (Columbia, South Carolina), January 4, 2023 and January 17, 2023
 - Augusta Chronicle (Augusta, Georgia), January 4, 2023 and January 17, 2023
 - Knoxville News Sentinel (Knoxville, Tennessee), January 4, 2023 and January 17, 2023
 - The Oak Ridger (Oak Ridge, Tennessee), January 4, 2023 and January 17, 2023
 - Amarillo Globe-News (Amarillo, Texas), January 4, 2023 and January 20, 2023
 - Panhandle Herald (Panhandle, Texas), January 4, 2023 and January 24, 2023
- Bulletin announcements were published for notice at LANL, SRS, and WIPP
- NNSA National Environmental Policy Act (NEPA) reading room website at <https://www.energy.gov/nnsa/nnsa-nepa-reading-room> and the DOE NEPA reading room website at <https://www.energy.gov/nepa/doeeis-0549-surplus-plutonium-disposition-program>.

NNSA held three in-person public hearings: one in Aiken, South Carolina on January 19, 2023; one in Carlsbad, New Mexico on January 24, 2023; and one in Los Alamos, New Mexico on January 26, 2023.

Comment Response Process and Summary

The hearings began with a poster session, providing an opportunity for informal discussion and question and answer with NNSA about different aspects of the Surplus Plutonium Disposition Program, including topics such as the EIS process, details about the Preferred Alternative, and proposed transportation routes. The posters were also made publicly available on the National Environmental Policy Act (NEPA) Reading Room website prior to the meetings. In addition to poster materials, NNSA presented 3-D models of the canisters, shipping containers, and truck proposed to transport the waste to the Waste Isolation Pilot Plant (WIPP). Following the poster session, NNSA presented on the Draft SPDP EIS, and provided an opportunity for members of the public to provide oral comments. A court reporter recorded all oral comments provided. The opportunity to provide written comments was also provided at the in-person hearings. The number of speakers that provided oral comments at each hearing are listed below:

- 11 speakers in North Augusta
- 12 speakers in Carlsbad
- 8 speakers in Los Alamos.

NNSA also held one virtual public hearing on January 30, 2023 using the Zoom™ platform. People were able to participate in this meeting either by internet connection (providing audio and visual access) or by phone (providing only audio access). A total of 22 speakers provided oral comments during the virtual hearing. A Spanish translator was available during the Carlsbad, Los Alamos, and virtual public hearings to facilitate communication for Spanish-speaking attendees.

Prior to the public hearings a variety of informational material was made available to members of the public in the electronic NNSA NEPA Reading Room and as hard copies available at the public hearings. This material included:

- copies of the posters
- poster scripts
- questions and answer document
- ground rules for the public hearings
- project fact sheet
- presentation slides.

All materials were made publicly available in both English and Spanish translations.

The public was encouraged to provide comments on the Draft EIS using one or more available options. The options for submitting comments on the Draft EIS included email, U.S. postal mail, leaving a voicemail using a designated phone number, providing oral comments during the public hearing or submitting written comment via a comment form at the in-person public hearings. Comments were accepted beyond the end of the comment period. NNSA considered all comments equally, regardless of the method in which they were provided.

1.2 Management of Comments

As discussed in Section 1 of this Final SPDP EIS, NNSA received 121 pieces of correspondence on the Draft EIS from individuals, interested groups and Federal, State and local agencies during the public

comment period. A piece of correspondence is defined as a single submittal of comments received by mail, email, or phone. In addition, the transcripts of all verbal comments made during the public hearings are each counted as a single piece of correspondence.

NNSA assessed and considered public comments on the Draft SPDP EIS, both individually and collectively. A number of comments provided valuable suggestions on improving the Draft EIS. Some comments led to EIS modifications; others resulted in a response to answer or explain policy questions, refer readers to information in the Final EIS, answer technical questions, explain technical issues, or to provide clarification. As applicable, the responses in this Appendix identify changes that NNSA made to the Final EIS as a result of comments on the Draft EIS. The following list highlights key aspects of NNSA's approach to recording, tracking, and responding to public comments on the Draft EIS:

- NNSA received the majority of correspondence via email, but also received correspondence via hardcopy letter, voicemail, and oral and handwritten comments provided at the public hearings. Upon receiving correspondence, details such as the date received and the name and affiliation of the author, if provided, were added to a tracking spreadsheet.
- Correspondence was then reviewed for form vs. unique content. Form language is defined as exactly matching language included in correspondence submitted by other authors, while unique content is distinctive to one particular piece of correspondence. This review was performed to prevent repetitive work and responses. Email correspondence included submittals related to five campaigns, of which some contained identical form language. Accounting for these campaign submittals, duplicate submittals, and non-comment submittals, the 121 pieces of correspondence included 86 unique submittals and four public meeting transcripts.
- Next, correspondence was reviewed to identify individual comments, which were later assigned to specific subject bins. A comment refers to a statement or opinion with a discrete theme and may consist of a portion of a sentence, a single sentence, or a group of sentences.
- Any piece of correspondence could contain many separate comments and most pieces of correspondence contained multiple comments about several topics. All pieces of correspondence received, including the public hearing transcripts, were systematically reviewed by the EIS preparers to identify individual comments. Comment analysis identified 816 unique comments from the 90 pieces of unique correspondence.
- Comments of a similar nature were grouped together and summarized for efficiency of response by a designated subject matter expert. Comment summaries were intended to capture the substantive issue(s) raised by a comment for a specific issue. Comments grouped and summarized for response were, of necessity, paraphrased; NNSA made every effort to capture the essence of comments included in a comment summary. In some cases, NNSA used specific language from one or more commenters to develop a particular comment summary. This should not be interpreted to mean that NNSA considered any comment to be more or less important than other comments received relative to that comment summary; rather, NNSA felt that a comment's particular language was a reasonable articulation of many comments for a particular subject. In some cases, a commenter submitted a comment that was so unique that NNSA responded to it individually.
- Senior-level experts reviewed and revised each comment summary and response to ensure technical and scientific accuracy, clarity, and consistency, and to ensure the comment summary adequately reflected the comments in that issue category, and that the response addressed the comments. Additionally, comment responses were coordinated with representatives from other DOE/NNSA sites that were addressed in the comment.

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Table 1. Individuals, Organizations and Federal, State and Local Agencies Providing Comments During the Comment Period

Commenter	Affiliation (if stated)	Comment Source	Correspondence ID
Anonymous		Email	87
Anonymous		Handwritten	28
Anonymous		Meeting Transcript	56-12
Anonymous		Meeting Transcript	56-13
Anonymous		Meeting Transcript	56-8
Anonymous		Oral	23
Arends, Joni	Concerned Citizens for Nuclear Safety	Email	12, 49
		Meeting Transcript	58-11, 58-19, 58-26, 58-36
Authors, Multiple*	Rep. Wilson et al.	Email	70
Authors, Multiple*	Comment Period Extension Request	Email	8
Authors, Multiple*	Loretto Motherhouse	Email	37
Barger, Stuart		Email	7
Beardmore, Kevin	Southeast New Mexico College	Email	29
Brookins, Lura		Handwritten	32
Brown, Diane		Meeting Transcript	58-37
Brown, Joan		Meeting Transcript	58-4
Buchser, John	Northern Group	Email	86
Burnett, Brittany	United Way of the CRSA	Email	2
Camarena, Melissa		Email	42
Carroll, Glenn	Nuclear Watch South	Meeting Transcript	57-12, 57-3
Chavez, JJ	Carlsbad City Council	Meeting Transcript	55-3
Coghlan, Jay	Nuclear Watch New Mexico	Email	77
		Meeting Transcript	56-1, 56-9
Corbett, Kathleen		Email	35
Corning, Gregory		Email	64
Cowley, Jill		Email	59
Daniel, Russell		Email	50
De Lataillade, Jean		Email	47
Estes, Connie		Email	18
Everett, Susan		Meeting Transcript	57-7
Finney, Dee		Email	63
Foree, Elizabeth		Meeting Transcript	58-2
Green, Jeanne		Email	78
Greenwald, Janet	Citizens for Alternatives to Radioactive Dumping	Meeting Transcript	56-5, 56-7
Greenwald, Janet	Los Alamos Downwind Neighbors	Email	61
Hamilton, Anna	Santa Fe County	Email	10
Hansen, Anna	Santa Fe County	Email	10
		Meeting Transcript	56-11, 56-3

Comment Response Process and Summary

Commenter	Affiliation (if stated)	Comment Source	Correspondence ID
Hart Stebbins, Maggie	New Mexico Office of the Natural Resources Trustee	Email	68
Hayden, Mark		Meeting Transcript	58-6
Heaton, John		Email	17
Hollenbach, David		Email	30
Irving, Aaron	Carlsbad Chamber of Commerce	Meeting Transcript	55-6
Jackson, Suzanne K.	Area Churches Together Serving	Email	41
Janway, Dale	City of Carlsbad	Email	9
		Meeting Transcript	55-1
Jones, Audrey		Meeting Transcript	57-11
Kajumba, Ntale	Environmental Protection Agency	Email	65
Kenney, James C.	New Mexico Environment Department	Letter	90
Kernan, Gay	New Mexico Senate	Email	15
Knottenbelt, Richard		Email	24
Kopp, Steve		Email	66
		Handwritten	26, 27
		Meeting Transcript	58-24
Kornreich, Drew		Email	19
Kovac, Scott	Nuclear Watch New Mexico	Email	77
		Meeting Transcript	56-4, 56-6
Kuhn, Betty		Email	51
		Meeting Transcript	58-15, 58-25
Landreth, Mary		Meeting Transcript	55-9
Long, Larry	U.S. EPA	Email	43
		Oral	38
Marksteiner, Kyle	City of Carlsbad	Email	60
		Meeting Transcript	55-8
Marra, James	Citizens for Nuclear Technology Awareness	Meeting Transcript	57-15, 57-8
Maxwell, Nick		Meeting Transcript	55-5
McCormick, Patricia		Email	34
McGuire, Mary		Email	52
McMaster, Henry	South Carolina Governor's Office	Email	73
McNamara, Cynthia		Email	82
Mee, William		Email	48
Mets, Mindy	SRS Community Reuse Organization	Email	33
Metz, Mindy		Meeting Transcript	57-9

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Commenter	Affiliation (if stated)	Comment Source	Correspondence ID
Moniak, Don		Meeting Transcript	57-1, 57-13, 58-10, 58-16 74, 75, 76
		Email	
Montano, Charles M.		Email	67
Morgan, Bob	South Carolina Chamber of Commerce	Email	20
Morgan, Leona		Email	89
Murphy-Young, Paige		Email	72
Nelson, Roger	Carlsbad Nuclear Task Force	Email	13
Nicholas, Barbara		Email	45
Nichols, Jean		Meeting Transcript	58-17, 58-40, 58-8
O'Connor, Thomas	Office of Nuclear Energy – U.S. DOE	Email	3
Onsurez, Jackie	Village of Loving City Council	Oral	5
Paczynski, Bob		Meeting Transcript	58-13
Parr, Sue	Augusta Metro Chamber of Commerce	Email	14
Perrotte, Marlene		Email	88
		Meeting Transcript	58-5
Powell, Tracy W		Email	84
Preston, Priscilla		Meeting Transcript	57-2
Ramirez, Alicia		Email	36
Reade, Deborah		Email	69
Rempe, Norbert		Meeting Transcript	55-12
		Handout	44
Rivard, Betsey	Georgia WAND; Women's Action for New Directions; Nuclear Watch South	Meeting Transcript	57-14, 57-4
Roddy, Steve		Email	53
Rodgers, Sharon	United Way of Aiken County	Email	6
Rodriguez, Ed	Carlsbad City Council	Email	16
Rodriquez, Edward T.	Carlsbad City Council	Meeting Transcript	55-2
Rogers, Sharon		Meeting Transcript	57-10
Rosenberger-Haider, Laura		Email	83
Sanchez, Kathy		Meeting Transcript	58-18, 58-21, 58-28, 58-34, 58-9
Schinnerer, Mark		Meeting Transcript	55-7
Seamster, Teresa		Email	21
Seaton, Paula		Meeting Transcript	58-20, 58-27
Sheely, Patricia		Meeting Transcript	58-12
Shirley, Jason	Carlsbad Department of Development	Email	31

Comment Response Process and Summary

Commenter	Affiliation (if stated)	Comment Source	Correspondence ID
Solitz, Dan		Meeting Transcript	58-29, 58-39, 58-41
		Oral	22
Stair, Mark		Email	4
Stauffer, Mary		Email	71
Stevens, Jean		Email	81
Stoffer, Mary		Meeting Transcript	56-10
Swanson, Donna		Email	62
Thatcher, Tami		Email	39
Thomas, Maria		Email	46
Ting, Mai		Meeting Transcript	56-2
Tsosie, Beata		Meeting Transcript	58-23, 58-30, 58-7
Utley, Charles	Blue Ridge Environmental Defense League	Meeting Transcript	57-5
Valentine, Erica		Meeting Transcript	58-3
Viegas, Lorraine		Meeting Transcript	58-32
Villegas, Lorraine		Meeting Transcript	55-10
Volpato, Jack		Email	25
		Meeting Transcript	55-4
Warren, Aaron		Meeting Transcript	58-22
Warren, Kayleigh	Tewa Women Unites	Meeting Transcript	58-14, 58-31, 58-33, 58-35, 58-38
		Email	79
Watson, Jeannie	Carlsbad Chamber of Commerce	Meeting Transcript	55-11
Weehler, Cynthia		Email	54
		Meeting Transcript	58-1
White, Eugene	Aiken County NAACP	Email	40
Wilcox, Ronald		Email	1
Wilks, John	Veterans For Peace, Chapter #63	Letter	11
Williams, Will		Meeting Transcript	57-6
Wilson, Alan	South Carolina Office of the Attorney General	Email	85
Young Jones, Andrea	Georgia WAND	Email	80

DOE = U.S. Department of Energy; EPA = U.S. Environmental Protection Agency; NAACP = National Association for the Advancement of Colored People; SRS = Savannah River Site; WAND = Women's Action for New Directions.

* A list of individual names associated with "Multiple Authors" is provided in Table 3.

If commenters submitted correspondence that was identical to one of the pieces of correspondence identified in Table 1, those identical pieces of correspondence were not assigned a correspondence ID. Such pieces of identical correspondence are termed "forms." These commenter names and correspondence forms are identified in Table 2.

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Table 2. Individuals Providing Form Letters During Comment Period

Commenter	Comment Source	Form
Davis, Cristie	Email	Form Beardmore
Knox, Jody	Email	(Identical to correspondence ID #29)
Campbell, Jeff	Email	
Epping, Edward	Email	Form De Lataillade
Gallagher, Michael	Email	(Identical to correspondence ID #47)
Salzmann, Michael	Email	Form Powell
Gilchrist, Pamela	Email	(Identical to correspondence ID #84)
Homans, Dee	Email	
Froelich, Peggy A	Email	
Lee, Y-M	Email	Form Arends
Holland, Dorothy	Email	(Identical to correspondence ID #49)
Miller, Basia	Email	

ID = identification.

Three pieces of correspondence received were signed by ten or more individuals. These pieces of correspondence are identified in Table 1 with the name, “Multiple Authors.” The name associated with each signature provided for these pieces of correspondence is listed in Table 3 below.

Table 3. Comment Documents with Multiple Signatories

Correspondence ID #8: Comment Period Extension Request		
Cynthia Weehler	Anna Rondon	Kenneth Mayers
Beata Tsosie	Susan Gordon	Cecilia Chávez Beltrán
Rosie Marie Cecchini	Scott Kovac	Halima M. Christy
Janet Greenwald	Kathy Sanchez	Gregory Corning
Joni Arends	Stop Forever WIPP	Dr. Ana X Gutierrez Sisneros
Deborah Reade	Robert L. Anderson	Maxine Freed
Douglas Meiklejohn	J. Gilbert Sanchez	Carolyn Johns
Mary Lambert	Donna Peth	Robin Seydel
Catherina J. Ondek	Joan Quinn	Mary Sharp Davis
Mara Taub	L. Watchempino	
Correspondence ID #37: Loretto Motherhouse		
Judy Popp	Mary Kay Brannan	Catherine Smith
Alicia Ramirez	Pat Friuh	Eileen Cersty
Baulin Albier	Marlene Speis	Janet Rabideau
Mary Swain	Joann Gates	Mary Gutzwiller
Rita Bruegenhagen	Susan Charmley	Donna Mattingly
Maureen Fiedler	Bernie Feeney	Ben Klebber
Martha Alderson	Johanna Brian	Ceciliana Sleus
Elisa Rodriguez	Barbara Schutte	

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Correspondence ID #70: Rep. Wilson et al.

Joe Wilson, Member of Congress	Ralph Norman, Member of Congress	James E. Clyburn, Member of Congress
Tim Scott, United States Senator	Nancy Mace, Member of Congress	Jeff Duncan, Member of Congress
Rick W. Allen, Member of Congress	Lindsey O. Graham, United States Senator	William R. Timmons, IV, Member of Congress
Russell Fry, Member of Congress		

ID = identification.

A summary of the types of correspondence received is presented in Table 4.

Table 4. Summary of Public Correspondence Received

Correspondence Type	Count*
U.S. mail (letter)	7
Email	101
Phone (voicemail)	4
Handout	1
January 19 meeting transcript	1
January 24 meeting transcript	1
January 26 meeting transcript	1
January 30 meeting transcript	1
Total Correspondence	121

* Includes 12 form letters, 7 duplicates, and 12 non-comments.

1.4 Summary of Comments

In preparing this Final SPDP EIS, NNSA made revisions to the Draft SPDP EIS in response to comments received from other Federal agencies, state, and local government entities, and the public. NNSA also changed this Final SPDP EIS to provide more environmental baseline information, including additional analyses, as well as to correct inaccuracies, make editorial corrections, and clarify text. In addition, NNSA updated information due to events or notifications made in other documents since the Draft SPDP EIS was provided for public comment in December 2022.

Section 1.6.2 of Volume 1 provides a more detailed summary of the comments received on the Draft SPDP EIS, including a list of changes made in response to comments.

Detailed responses to summarized comments are found in Attachment A. The responses are organized by Comment Category. A list of the number of comments in each Comment Category is provided in Table 5. A list of the commenters that provided comments in each of the Comment Categories is shown in Table 6.

The Correspondence and Transcripts of the Public Hearings are found in Attachment B.

Table 5. Summary of Unique Comments by Category

Comment Category #	Category	Count
1	Purpose and Need for Proposed Action	7
2	Proposed Action	17
3	Scope and Content of EIS	36
4	Dilute and Dispose	39
5	Preferred Alternative	102
6	No Action Alternative	5
7	Additional Alternatives	67
8	Disposal at WIPP	125
9	NEPA Process	70
10	Land Use and Visual Resources	3
11	Geology and Soils	3
12	Water Resources	8
13	Meteorology and Air Quality	1
14	Ecological Resources	3
15	Human Health – Radiological	27
16	Human Health – Non-Radiological	1
17	Human Health Accident Analysis	40
18	Intentional Destructive Acts	4
19	Cultural Resources	1
20	Socioeconomics	4
21	Waste Management	2
22	Environmental Justice	14
23	Transportation	52
24	Cumulative Impacts	39
25	General Support for the SPDP EIS or NNSA	17
26	General Opposition to the SPDP EIS or NNSA	33
27	Out of Scope	73

EIS = Environmental Impact Statement; NEPA = National Environmental Policy Act; NNSA = National Nuclear Security Administration; WIPP = Waste Isolation Pilot Plant.

Comment Response Process and Summary

Table 6. List of Commenters Providing Comments in Each Comment Category

Comment Category	Commenter (Comment ID)
Additional Alternatives	<ul style="list-style-type: none"> • Arends, Joni (49-13) (49-18) (58-11-2) • Buchser, John (86-1) (86-4) • Carroll, Glenn (57-3-1) (57-12-4) • Coghlan, Jay (56-1-2) (56-1-3) (56-1-5) (56-9-1) (56-9-4) (56-9-7) (77-1-4) (77-2-6) (77-2-7) • Cowley, Jill (59-2) • De Lataillade, Jean (47-7) (47-9) • Green, Jeanne (78-2) • Greenwald, Janet (61-2) (61-11) • Hamilton, Anna (10-7) • Hansen, Anna (10-7) • Hart Stebbins, Maggie (68-1-2) • Hollenbach, David (30-2) • Kovac, Scott (77-1-4) (77-2-6) (77-2-7) • Landreth, Mary (55-9-5) • Maxwell, Nick (55-5-3) • McNamara, Cynthia (82-12) • Moniak, Don (57-1-1) (58-10-2) • Moniak, Donald (74-1) (75-2) • Montano, Charles M. (67-2) (67-4) (67-7) • Morgan, Leona (89-4) • Nichols, Jean (58-8-3) • O'Connor, Thomas (3-1) • Perrotte, Marlene (58-5-4) (58-5-6) (88-5) • Powell, Tracy W (84-10) (84-12) • Preston, Priscilla (57-2-5) • Ramirez, Alicia (36-1) • Reade, Deborah (69-11) • Rempe, Norbert (44-3) (55-12-3) • Roddy, Steve (53-2) • Seamster, Teresa (21-3) • Seaton, Paula (58-27-1) • Stair, Mark (4-2) • Stauffer, Mary (71-5) (71-11) • Stoffer, Mary (56-10-1) (56-10-3) • Swanson, Donna (62-2) • Thomas, Maria (46-3) • Tinger, Mai (56-2-3) • Tsosie, Beata (58-7-2) (58-23-4) (58-30-5) (58-30-7) • Watchempino, Laura (79-1-1) (79-1-2) (79-1-19) (79-1-20) (79-2-1) (79-2-2) • Wilks, John (11-8) (11-10)
Cultural Resources	<ul style="list-style-type: none"> • Hart Stebbins, Maggie (68-1-9)

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Comment Category	Commenter (Comment ID)
Cumulative Impacts	<ul style="list-style-type: none"> • Arends, Joni (49-5) (49-8) (49-9) • Buchser, John (86-8) • Coghlan, Jay (56-9-3) (77-1-9) (77-1-16) (77-1-17) • Greenwald, Janet (61-5) • Kenney, James C. (90-12) • Kovac, Scott (77-1-9) (77-1-16) (77-1-17) • Kuhn, Betty (51-1) • Moniak, Don (57-1-6) (57-13-1) • Perrotte, Marlene (58-5-7) (88-9) (88-11) (88-13) (88-15) (88-16) • Powell, Tracy W (84-6) (84-11) • Preston, Priscilla (57-2-6) • Reade, Deborah (69-2) • Thatcher, Tami (39-2-3) (39-2-9) • Utley, Charles (57-5-1) • Watchempino, L. (58-31-1) (58-31-2) (58-33-1) (58-38-2) (58-38-4) • Watchempino, Laura (79-1-12) (79-1-13) (79-2-3) (79-2-4) • Wilks, John (11-6) • Young Jones, Andrea (80-4) (80-5) (80-6)
Dilute and Dispose	<ul style="list-style-type: none"> • De Lataillade, Jean (47-2) • Hamilton, Anna (10-5) • Hansen, Anna (10-5) (56-3-3) • Janway, Dale (9-1) (9-3) (55-1-2) • Kenney, James C. (90-1) • Kopp, Steve (26-1) • Kovac, Scott (56-4-2) (56-4-5) • Marksteiner, Kyle (55-8-1) • McGuire, Mary (52-3) • McMaster, Henry (73-1) • McNamara, Cynthia (82-4) • Nichols, Jean (58-8-2) • Parr, Sue (14-2) • Perrotte, Marlene (88-4) • Powell, Tracy W (84-2) • Preston, Priscilla (57-2-1) (57-2-8) • Reade, Deborah (69-13) • Rempe, Norbert (44-2) • Rodriguez, Ed (16-3) (16-5) • Sanchez, Kathy (58-18-1) (58-18-2) • Schinnerer, Mark (55-7-1) • Seamster, Teresa (21-2) • Seaton, Paula (58-20-1) • Stoffer, Mary (56-10-2) (56-10-4) • Thatcher, Tami (39-2-16) • Thomas, Maria (46-1)

Comment Response Process and Summary

Comment Category	Commenter (Comment ID)
Dilute and Dispose	<ul style="list-style-type: none"> • Tinger, Mai (56-2-2) • Volpato, Jack (55-4-1) • Watson, Jeannie (55-11-1) • Wilks, John (11-12) • Young Jones, Andrea (80-3) (80-9)
Disposal at the WIPP Facility	<ul style="list-style-type: none"> • Anonymous (56-12-3) • Arends, Joni (49-12) (49-14) (49-16) (49-19) (58-26-1) • Barger, Stuart (7-2) • Beardmore, Kevin (29-2) • Buchser, John (86-6) • Camarena, Melissa (42-1) • Chavez, JJ (55-3-1) (55-3-2) • Coghlan, Jay (56-9-5) (56-9-6) (77-1-18) (77-1-20) (77-2-1) (77-2-2) (77-2-3) (77-2-4) (77-2-5) • De Lataillade, Jean (47-1) (47-6) • Estes, Connie (18-1) • Foree, Elizabeth (58-2-1) • Green, Jeanne (78-3) (78-5) (78-7) • Hamilton, Anna (10-9) • Hansen, Anna (10-9) • Hart Stebbins, Maggie (68-2-2) • Hayden, Mark (58-6-1) • Heaton, John (17-1) (17-3) (17-4) • Irving, Aaron (55-6-1) • Janway, Dale (9-5) (55-1-3) • Kenney, James C. (90-2) (90-3) (90-5) (90-6) • Kopp, Steve (26-2) (58-24-1) (66-1) • Kovac, Scott (56-4-3) (77-1-18) (77-1-20) (77-2-1) (77-2-2) (77-2-3) (77-2-4) (77-2-5) • Kuhn, Betty (51-2) (58-15-2) • Landreth, Mary (55-9-4) (55-9-7) • Marksteiner, Kyle (55-8-3) • Maxwell, Nick (55-5-2) • McGuire, Mary (52-1) (52-2) • McNamara, Cynthia (82-2) (82-3) (82-8) (82-9) • Montano, Charles M. (67-3) (67-5) • Morgan, Leona (89-3) (89-5) (89-7) • Murphy-Young, Paige (72-2) • Nelson, Roger (13-1) (13-4) (13-5) (13-8) (13-9) • Nichols, Jean (58-8-5) (58-40-3) • Perrotte, Marlene (58-5-2) (58-5-5) (88-2) (88-3) (88-7) (88-19) • Powell, Tracy W (84-7) (84-8) (84-9) • Reade, Deborah (69-7) (69-8) (69-9) • Rempe, Norbert (55-12-1)

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Comment Category	Commenter (Comment ID)
Disposal at the WIPP Facility	<ul style="list-style-type: none"> • Rodriguez, Ed (16-4) • Rodriquez, Edward T. (55-2-1) • Schinnerer, Mark (55-7-2) • Seamster, Teresa (21-1) • Seaton, Paula (58-27-4) • Sheely, Patricia (58-12-2) (58-12-5) • Shirley, Jason (31-2) • Solitz, Dan (22-2) (58-39-1) • Stauffer, Mary (71-17) (71-18) (71-20) • Thatcher, Tami (39-1-5) (39-2-2) (39-2-10) (39-2-11) (39-2-13) (39-2-14) (39-2-18)(39-3-1) (39-3-2) • Tsosie, Beata (58-23-1) (58-23-5) (58-30-8) • Valentine, Erica (58-3-1) (58-3-2) • Viegas, Lorraine (58-32-1) (58-32-2) (58-32-3) • Villegas, Lorraine (55-10-1) (55-10-2) (55-10-3) • Volpato, Jack (25-1) (25-2) (55-4-2) • Warren, Kayleigh (58-14-2) • Watchempino, L. (58-38-3) • Watchempino, Laura (79-1-16) (79-1-18) (79-2-5) • Watson, Jeannie (55-11-2) • Weehler, Cynthia (54-4) (54-7) (54-9) • Wilks, John (11-2) (11-3) (11-9) (11-11) • Young Jones, Andrea (80-7) (80-8)
Ecological Resources	<ul style="list-style-type: none"> • Hart Stebbins, Maggie (68-1-13) • Kajumba, Ntale (65-8) (65-10)
Environmental Justice	<ul style="list-style-type: none"> • Anonymous (56-8-3) • Brown, Joan (58-4-2) • Greenwald, Janet (56-7-5) (61-9) • Hamilton, Anna (10-11) • Hansen, Anna (10-11) • Hart Stebbins, Maggie (68-1-4) (68-1-5) (68-1-6) • Kajumba, Ntale (65-14) • Kenney, James C. (90-11) (90-13) (90-14) • Utley, Charles (57-5-3) • Weehler, Cynthia (54-11)
General Opposition	<ul style="list-style-type: none"> • Anonymous (28-1) (56-12-2) • Arends, Joni (58-19-2) • Barger, Stuart (7-1) (7-3) • Brown, Diane (58-37-2) • Brown, Joan (58-4-1) (58-4-3) (58-4-5) • Coghlan, Jay (56-1-4) (77-1-5) (77-1-7) • Foree, Elizabeth (58-2-3) • Kovac, Scott (77-1-5) (77-1-7) • Maxwell, Nick (55-5-4)

Comment Response Process and Summary

Comment Category	Commenter (Comment ID)
General Opposition	<ul style="list-style-type: none"> • McCormick, Patricia (34-2) • McNamara, Cynthia (82-1) • Moniak, Don (58-10-1) • Murphy-Young, Paige (72-1) • Nichols, Jean (58-8-6) (58-17-3) • Sanchez, Kathy (58-21-2) (58-28-2) (58-28-4) • Seaton, Paula (58-27-2) • Thatcher, Tami (39-1-8) (39-3-3) (39-4-9) • Tinger, Mai (56-2-1) • Tsosie, Beata (58-7-6) (58-30-6) • Warren, Aaron (58-22-2) • Weehler, Cynthia (58-1-1) • Wilson, Alan (85-2)
General Support	<ul style="list-style-type: none"> • Authors, Multiple (70-2) (70-3) • Beardmore, Kevin (29-1) • Burnett, Brittany (2-1) • Everett, Susan (57-7-1) • Jackson, Suzanne K. (41-1) • Janway, Dale (9-2) • Kernan, Gay (15-2) • Knottenbelt, Richard (24-1) • Kovac, Scott (56-4-1) • Mets, Mindy (33-4) • Rodgers, Sharon (6-1) • Rogers, Sharon (57-10-1) • White, Eugene (40-2) (40-6) • Williams, Will (57-6-1)
Geology and Soils	<ul style="list-style-type: none"> • Arends, Joni (58-19-1) • Hart Stebbins, Maggie (68-1-11) • Kuhn, Betty (58-15-1)
Human Health - Nonradiological	<ul style="list-style-type: none"> • Moniak, Donald (74-4)
Human Health - Radiological	<ul style="list-style-type: none"> • Greenwald, Janet (56-7-3) (61-10) • Hart Stebbins, Maggie (68-1-14) (68-1-15) • Moniak, Don (57-1-4) • Moniak, Donald (74-2) (75-5) (76-1) • Thatcher, Tami (39-1-3) (39-1-18) (39-2-5) (39-3-7) (39-3-11) (39-3-12) (39-3-13) (39-3-14) (39-3-15) (39-3-16) (39-3-17) (39-3-18) (39-3-19) (39-3-20) (39-3-21) (39-3-22) (39-3-23) (39-4-4) (39-4-6) (39-4-7) (39-4-8)
Human Health Accident Analysis	<ul style="list-style-type: none"> • Hamilton, Anna (10-1) • Hansen, Anna (10-1) (56-3-6) • Hart Stebbins, Maggie (68-1-17) (68-1-18) • Kovac, Scott (56-4-6) (56-6-1) • McNamara, Cynthia (82-5)

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Comment Category	Commenter (Comment ID)
Human Health Accident Analysis	<ul style="list-style-type: none"> • Moniak, Donald (74-3) • Nichols, Jean (58-40-2) • Preston, Priscilla (57-2-4) • Reade, Deborah (69-3) • Stair, Mark (4-4) • Stauffer, Mary (71-3) (71-15) (71-16) • Thatcher, Tami (39-1-4) (39-1-6) (39-1-7) (39-1-9) (39-1-10) (39-1-11) (39-1-12) (39-1-13) (39-1-14) (39-1-15) (39-1-17) (39-1-19) (39-1-20) (39-2-1) (39-2-4) (39-2-6) (39-2-8) (39-3-4) (39-3-6) (39-3-8) (39-3-10) • Tsosie, Beata (58-30-2) • Watchempino, L. (58-35-1) • Watchempino, Laura (79-1-11) • Weehler, Cynthia (54-10)
Intentional Destructive Acts	<ul style="list-style-type: none"> • Anonymous (56-12-1) • Mee, William (48-1) • Nelson, Roger (13-6) • Sanchez, Kathy (58-34-2)
Land Use and Visual Resources	<ul style="list-style-type: none"> • Kajumba, Ntale (65-5) (65-9) • Wilks, John (11-7)
Meteorology and Air Quality	<ul style="list-style-type: none"> • Kajumba, Ntale (65-16)
NEPA Process	<ul style="list-style-type: none"> • Anonymous (23-1) (56-8-1) • Arends, Joni (12-1) (49-6) (49-7) (49-10) (49-15) (49-17) (58-11-3) (58-11-4) (58-19-4) (58-26-2) (58-36-2) • Authors, Multiple (8-1) • Brown, Diane (58-37-1) • Brown, Joan (58-4-6) • Buchser, John (86-5) • Carroll, Glenn (57-12-2) • Coghlan, Jay (77-1-1) (77-1-19) • Corning, Gregory (64-1) • Cowley, Jill (59-4) • De Lataillade, Jean (47-11) • Estes, Connie (18-2) • Finney, Dee (63-1) • Green, Jeanne (78-4) (78-6) • Greenwald, Janet (56-7-7) (56-7-8) • Hamilton, Anna (10-13) (10-14) (10-17) • Hansen, Anna (10-13) (10-14) (10-17) (56-3-2) (56-3-4) (56-3-5) (56-3-7) • Hart Stebbins, Maggie (68-1-1) (68-1-7) (68-1-8) • Jones, Audrey (57-11-1) • Kajumba, Ntale (65-1) (65-3) (65-12) (65-15) • Kenney, James C. (90-9) • Kovac, Scott (56-4-4) (77-1-1) (77-1-19)

Comment Response Process and Summary

Comment Category	Commenter (Comment ID)
NEPA Process	<ul style="list-style-type: none"> • Kuhn, Betty (51-4) • Landreth, Mary (55-9-6) • Marksteiner, Kyle (55-8-2) (60-1) • McGuire, Mary (52-5) • McMaster, Henry (73-3) • McNamara, Cynthia (82-7) (82-11) • Mets, Mindy (33-5) • Morgan, Leona (89-1) (89-2) (89-6) (89-8) • Onsurez, Jackie (5-1) • Paczynski, Bob (58-13-3) • Perrotte, Marlene (88-6) (88-8) (88-10) (88-17) (88-18) • Preston, Priscilla (57-2-2) (57-2-3) • Rivard, Betsey (57-4-2) • Sanchez, Kathy (58-34-1) • Solitz, Dan (22-6) • Stauffer, Mary (71-1) (71-4) (71-7) (71-10) (71-12) • Stevens, Jean (81-2) • Tsosie, Beata (58-7-7) (58-23-2) (58-30-1) (58-30-3) • Warren, Aaron (58-22-1) • Warren, Kayleigh (58-14-3) (58-14-4) • Watchempino, L. (58-31-3) (58-33-2) • Watchempino, Laura (79-1-4) (79-1-5) (79-1-6) (79-1-17) • Weehler, Cynthia (54-1) (54-2) (54-3) (54-12) (58-1-2) (58-1-4) • Young Jones, Andrea (80-2) (80-10) (80-11)
No Action Alternative	<ul style="list-style-type: none"> • Kopp, Steve (66-2) • Moniak, Don (57-13-2) • Stauffer, Mary (71-6) • Tsosie, Beata (58-7-5) • Wilson, Alan (85-3)
Out of Scope	<ul style="list-style-type: none"> • Anonymous (56-13-1) (87-1) • Arends, Joni (49-11) (58-11-5) • Authors, Multiple (70-4) • Brown, Joan (58-4-4) • Carroll, Glenn (57-3-2) • Coghlan, Jay (56-1-1) (56-9-2) (77-1-6) (77-1-8) • Daniel, Russell (50-1) • Greenwald, Janet (56-7-4) (56-7-6) (61-8) • Hamilton, Anna (10-15) • Hansen, Anna (10-15) • Janway, Dale (9-4) • Kenney, James C. (90-8) • Knottenbelt, Richard (24-4) (24-5) (24-7) (24-8) • Kovac, Scott (77-1-6) (77-1-8) • Kuhn, Betty (58-25-1)

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Out of Scope	<ul style="list-style-type: none"> • Landreth, Mary (55-9-3) • Moniak, Don (57-13-4) (58-16-1) (58-16-2) • Morgan, Bob (20-1) • Morgan, Leona (89-9) • Murphy-Young, Paige (72-3) • Nichols, Jean (58-8-4) (58-17-1) • Perrotte, Marlene (58-5-1) (88-14) • Powell, Tracy W (84-3) • Preston, Priscilla (57-2-9) • Reade, Deborah (69-12) • Rodgers, Sharon (6-3) • Sanchez, Kathy (58-9-2) (58-9-4) (58-21-1) (58-21-3) (58-28-1) • Seamster, Teresa (21-6) (21-8) • Seaton, Paula (58-20-2) (58-27-3) • Solitz, Dan (58-41-1) • Stair, Mark (4-1) (4-3) • Stevens, Jean (81-1) • Swanson, Donna (62-3) • Thatcher, Tami (39-1-16) (39-2-12) (39-2-15) (39-2-17) (39-3-5) (39-3-9) (39-4-2) (39-4-3) (39-4-5) • Tsosie, Beata (58-7-3) • Warren, Aaron (58-22-4) (58-22-6) • Watchempino, L. (58-38-1) • Watchempino, Laura (79-1-8) (79-1-9) (79-2-6) • Wilcox, Ronald (1-1) • Wilson, Alan (85-5)
Preferred Alternative	<ul style="list-style-type: none"> • Anonymous (56-8-2) • Arends, Joni (49-1) (49-2) (49-3) (49-4) (58-19-3) • Authors, Multiple (37-1) (70-1) • Brookins, Lura (32-1) • Carroll, Glenn (57-12-1) • Coghlan, Jay (77-1-3) (77-1-10) (77-1-11) (77-1-13) (77-1-15) • Corbett, Kathleen (35-1) • De Lataillade, Jean (47-10) • Finney, Dee (63-3) • Greenwald, Janet (56-5-1) (56-7-1) (56-7-2) (61-3) (61-4) (61-6) (61-7) • Hamilton, Anna (10-8) (10-16) • Hansen, Anna (10-8) (10-16) (56-11-2) • Hart Stebbins, Maggie (68-1-3) (68-1-10) • Heaton, John (17-2) (17-6) • Irving, Aaron (55-6-2) • Janway, Dale (55-1-1) • Kenney, James C. (90-4) • Kernan, Gay (15-1)

Comment Response Process and Summary

Comment Category	Commenter (Comment ID)
Preferred Alternative	<ul style="list-style-type: none"> • Knottenbelt, Richard (24-3) • Kopp, Steve (27-1) (58-24-2) (58-24-3) (66-3) • Kovac, Scott (77-1-3) (77-1-10) (77-1-11) (77-1-13) (77-1-15) • Landreth, Mary (55-9-1) (55-9-2) • Marra, James (57-8-1) • Maxwell, Nick (55-5-1) • McCormick, Patricia (34-1) • McMaster, Henry (73-2) • McNamara, Cynthia (82-10) • Mets, Mindy (33-1) (33-2) (33-3) • Metz, Mindy (57-9-1) • Moniak, Don (57-1-2) (57-1-3) (57-1-5) (57-13-3) • Moniak, Donald (74-5) (75-1) (75-6) (76-3) • Morgan, Bob (20-2) • Nelson, Roger (13-2) (13-3) • Nichols, Jean (58-8-1) (58-17-2) • Paczynski, Bob (58-13-1) (58-13-2) • Parr, Sue (14-1) (14-3) (14-4) • Perrotte, Marlene (58-5-3) (88-1) (88-12) • Powell, Tracy W (84-4) (84-5) • Reade, Deborah (69-1) (69-4) (69-5) • Rivard, Betsey (57-14-1) • Rodgers, Sharon (6-2) (6-4) • Rodriguez, Ed (16-1) (16-2) • Rosenberger-Haider, Laura (83-1) • Seamster, Teresa (21-5) • Seaton, Paula (58-27-5) • Sheely, Patricia (58-12-3) • Shirley, Jason (31-1) • Solitz, Dan (22-3) (22-4) • Stauffer, Mary (71-13) • Swanson, Donna (62-1) • Thatcher, Tami (39-1-1) (39-1-2) (39-2-7) • Tsosie, Beata (58-7-4) (58-30-4) • Warren, Aaron (58-22-3) (58-22-5) • Warren, Kayleigh (58-14-1) • Watchempino, Laura (79-1-10) (79-1-14) (79-2-7) • Weehler, Cynthia (54-8) • White, Eugene (40-1) • Wilks, John (11-4) (11-5) • Wilson, Alan (85-1) (85-4)

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Proposed Action	<ul style="list-style-type: none"> • Buchser, John (86-7) • Carroll, Glenn (57-3-3) • Coghlan, Jay (77-1-2) • De Lataillade, Jean (47-8) • Heaton, John (17-5) • Kornreich, Drew (19-1) • Kovac, Scott (77-1-2) • Moniak, Donald (75-3) (75-4) (76-2) • Powell, Tracy W (84-1) • Rempe, Norbert (44-1) (55-12-2) • Solitz, Dan (22-5) • Stauffer, Mary (71-2) (71-14) • Tsosie, Beata (58-7-1) • Wilks, John (11-1)
Purpose and Need for Proposed Action	<ul style="list-style-type: none"> • Arends, Joni (58-11-1) • Buchser, John (86-3) • Reade, Deborah (69-10) • Sanchez, Kathy (58-9-3) • Sheely, Patricia (58-12-4) • Solitz, Dan (22-1) (58-29-1)
Scope and Content of the EIS	<ul style="list-style-type: none"> • Hamilton, Anna (10-4) (10-12) • Hansen, Anna (10-4) (10-12) • Marra, James (57-8-2) • Nelson, Roger (13-7) • Stauffer, Mary (71-8) (71-9) (71-19) • Watchempino, Laura (79-1-7) (79-1-15) • Weehler, Cynthia (54-5) • White, Eugene (40-3) (40-4)
Socioeconomics	<ul style="list-style-type: none"> • Hart Stebbins, Maggie (68-2-1) • Thatcher, Tami (39-4-1) • White, Eugene (40-5)
Transportation	<ul style="list-style-type: none"> • Arends, Joni (58-36-1) • Buchser, John (86-2) • Carroll, Glenn (57-12-3) • Coghlan, Jay (77-1-12) (77-1-14) • Cowley, Jill (59-1) (59-3) • De Lataillade, Jean (47-3) (47-4) (47-5) • Finney, Dee (63-2) • Foree, Elizabeth (58-2-2) • Green, Jeanne (78-1) • Greenwald, Janet (61-1) • Hamilton, Anna (10-2) (10-10) • Hansen, Anna (10-2) (10-10) (56-3-1) (56-11-1) (56-11-3) • Hart Stebbins, Maggie (68-1-16)

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Comment Category	Commenter (Comment ID)
Transportation	<ul style="list-style-type: none">• Hollenbach, David (30-1)• Kenney, James C. (90-7) (90-10)• Knottenbelt, Richard (24-2) (24-6)• Kovac, Scott (77-1-12) (77-1-14)• Kuhn, Betty (51-3)• McGuire, Mary (52-4)• McNamara, Cynthia (82-6)• Montano, Charles M. (67-1) (67-6)• Nicholas, Barbara (45-1)• Nichols, Jean (58-40-1)• Preston, Priscilla (57-2-7)• Reade, Deborah (69-6)• Rivard, Betsey (57-4-1)• Roddy, Steve (53-1)• Sanchez, Kathy (58-9-1) (58-9-5) (58-28-3) (58-34-3)• Seamster, Teresa (21-4) (21-7)• Sheely, Patricia (58-12-1)• Stair, Mark (4-5)• Stevens, Jean (81-3)• Thomas, Maria (46-2)• Tsosie, Beata (58-23-3)• Utley, Charles (57-5-2)• Watchempino, Laura (79-1-3)• Weehler, Cynthia (54-6) (54-13) (58-1-3)• Young Jones, Andrea (80-1)
Waste Management	<ul style="list-style-type: none">• Hamilton, Anna (10-6)• Hansen, Anna (10-6)• Hart Stebbins, Maggie (68-2-3)
Water Resources	<ul style="list-style-type: none">• Hamilton, Anna (10-3)• Hansen, Anna (10-3)• Hart Stebbins, Maggie (68-1-12)• Kajumba, Ntale (65-2) (65-4) (65-6) (65-7) (65-11) (65-13)

EIS = Environmental Impact Statement; NEPA = National Environmental Policy Act; WIPP = Waste Isolation Pilot Plant

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DOE (U.S. Department of Energy). 2018. Letter from R Perry, Secretary of Energy, to the Chairman of the Subcommittee on Strategic Forces, dated May 10, 2018, regarding the Plutonium Disposition Program, the Mixed Oxide Facility, and the Dilute and Dispose Approach. Washington, D.C. Available online: https://www.lasg.org/MPF2/PerryLtr-MOX-D&D-MFFF_10May2018.pdf (accessed August 11, 2021).

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Surplus Plutonium Disposition Program Comment Response Report

This Attachment is comprised of (1) summarized comments that the National Nuclear Security Administration (NNSA) received on the Draft Surplus Plutonium Disposition Program Environmental Impact Statement during the public comment period, including comments received after close of the period NNSA was able to consider; and (2) detailed responses to the summarized comments. The responses are organized by Comment Category. To find the response to an author's comment, the reader should identify the correspondence identification number(s) associated with a commenter's name in Volume 3, Table 1 and then, search for the correspondence identification(s) in this Attachment to identify the response to a comment.

The complete correspondence documents and transcripts are reproduced in Attachment B. At the start of each highlighted comment in Attachment B, the comment code is shown along with the response number. To find the individual comments in Attachment B associated with the responses provided in this Attachment, the reader should search in Attachment B for their comment code or name.

In this Attachment, some lengthy summarized comments have been broken into parts using numbered sub-sections. When appropriate, the corresponding responses have the comment summary sub-section numbers listed next to the response sub-sections to aid the reader in mapping the comment summary to the response.

1.0 Purpose and Need for the Proposed Action

1.1 General Comments About the Purpose of the Environmental Impact Statement

Comments: (22-1) (58-11-1) (58-12-4) (58-29-1) (86-3)

Commenters asked for clarification of the purpose and need statement regarding future excess plutonium, why plutonium has been declared as surplus, and what "readily available" means. One commenter stated that the environmental impact statement (EIS) does not present the need, cost, or timeline to pursue disposal of surplus plutonium.

Response: As discussed in Section 1.1 of this *Final Surplus Plutonium Disposition Program Environmental Impact Statement* (SPDP EIS), in 1994 the United States (U.S.) declared 52.5 metric tons (MTs) of plutonium to be surplus to the defense needs of the Nation. In 2007, an additional 9 MT was declared surplus. As described in Section 1.2 of this SPDP EIS, National Nuclear Safety Administration's (NNSA's) purpose and need for action is to safely and securely disposition plutonium that is surplus to the Nation's defense needs so that it is not readily usable in a nuclear weapon. NNSA has committed to disposition 34 MT of surplus plutonium in accordance with international agreements. The impacts of disposition of any future declarations of surplus plutonium would be addressed, as appropriate, in accordance with Council on Environmental Quality (CEQ) and Department of Energy (DOE) regulations implementing the National Environmental Policy Act (NEPA).

The commenter asked about the definition of "readily available." The term used by NNSA is "readily usable." As discussed in Section 1.3 of this SPDP EIS, the DOE's Plutonium Disposition Working Group in its report, *Analysis of Surplus Weapon Grade Plutonium Disposition Options* (DOE 2014), indicated that

although downblending (dilution) and disposal does not change the isotopic composition of the plutonium, it meets two of the three attributes for minimizing accessibility and reuse through physical and chemical barriers. The physical barrier is its placement 2,150 ft below the surface in an underground salt formation at the Waste Isolation Pilot Plant (WIPP) facility and the chemical barrier is the adulterant.

As discussed in Appendix B of this SPDP EIS, NNSA estimated operational durations based on processing throughputs that would result in completion of the 34 MT mission in fiscal year (FY) 2050. However, the completion date for the 34 MT mission could change based on program funding, NNSA priorities, design changes, safety considerations, and other factors. Table B-1 provides durations of construction and modification activities, and Table B-2 provides durations of operations activities.

Cost is among the factors that decision-makers may consider when selecting an alternative for implementation, but it would not have any bearing on the analysis of potential environmental impacts and therefore is not discussed in this SPDP EIS.

These comments did not result in a modification in the Final EIS.

1.2 Need for More Research

Comments: (58-9-3) (69-10)

One commenter asked if NNSA is ready to safely dispose of the surplus plutonium, given the number of alternatives considered in the past and projects that were started and stopped, and asked why there is an urgent need to dispose of the surplus plutonium rather than wait for possible future technologies that could make use of the surplus plutonium. One commenter stated that funding should be provided to research a safer means of disposal.

Response: As discussed in Section 1.1 of this SPDP EIS, since the mid-1990s, NNSA has conducted multiple studies of potential disposition alternatives. The dilute and dispose strategy is based on proven technologies. As discussed in Section 2.1.1 of this SPDP EIS, NNSA used the dilute and dispose strategy to disposition surplus plutonium from Rocky Flats and other nuclear sites (Mason 2015) and is currently using this strategy to disposition 13.1 MT of surplus non-pit plutonium. Recently, the National Academy of Sciences Engineering and Medicine (NASEM) completed a multiyear review of the dilute and dispose strategy and concluded that it is technically feasible (NASEM 2020).

NNSA has described each step involved in the Preferred Alternative in Section 2.1.1.1 of this SPDP EIS. The technical and economic feasibility of the dilute and dispose strategy has been analyzed in multiple reports:

- 2014 DOE Plutonium Disposition Working Group Report (DOE 2014)
- 2015 National Defense Authorization Act – mandated federally funded research and development center independent assessment (Hart et al. 2015)
- Independent Red Team Review led by Oak Ridge National Laboratory’s Thom Mason (Mason 2015) and
- Office of Cost Estimating and Program Evaluation Surplus Plutonium Disposition Dilute and Dispose Option Independent Cost Estimate Report (DOE 2018b).

These comments did not result in a modification in the Final EIS.

2.0 Proposed Action

2.1 Description of the Proposed Action

Comments: (71-14)

One commenter stated that the EIS should address the time period beyond 2050, because the WIPP facility is anticipated to operate beyond 2050.

Response: Text has been added to Section 2.1.1.2.5 of this Final SPDP EIS, indicating that DOE has authorized the WIPP facility to use FY 2050 as a planning assumption for a closure date for project management plans related to capital asset projects and other strategic planning initiatives (DOE 2015b). NNSA has chosen FY 2050 as the date for completion of the 34 MT mission described in this EIS. NNSA estimated operational durations based on throughputs (as discussed in Appendix B of this SPDP EIS) that would result in mission completion in FY 2050. Throughput rates are based on currently available planning data including operating experience and estimates of the capability of new or modified equipment.

2.2 Inventory Considered in this SPDP EIS

Comments: (11-1) (71-2) (75-3) (76-2)

Commenters questioned the total quantity of surplus plutonium being analyzed in the EIS. Commenters stated that it is likely that additional plutonium will be identified, declared surplus, and subject to decisions resulting from this SPDP EIS. The EIS should include a discussion of the full plan for the Nation's surplus plutonium.

Response: As discussed in Section 1.1 of this SPDP EIS, in 1994 the President of the United States declared 52.5 MT of plutonium to be surplus to the defense needs of the Nation. In 2007, an additional 9 MT was declared to be surplus. Any future surplus plutonium that requires disposition would require coverage under new or existing NEPA analyses as appropriate under CEQ regulations.

The surplus plutonium is managed by several DOE programs because the plutonium varies in physical and isotopic composition and resulted from various DOE missions. Subsets are subject to different policy and legal mandates. These declarations were described in previous EIS documents, which also provided the public with an opportunity for review and comment. This SPDP EIS is focused on alternatives for disposition of 34 MT that was previously intended for use in fabricating mixed oxide (MOX) fuel.

As discussed in Sections 1.1 and 2.1.1, this SPDP EIS also evaluates the impacts of dispositioning up to 7.1 MT of non-pit surplus plutonium that was the subject of a 2020 Supplement Analysis and Amended Record of Decision (AROD) (85 FR 53350) and is part of the 34 MT. In Section 1.1, NNSA also discusses the 6 MT that was addressed in the 2016 Record of Decision (ROD) (81 FR 19588) but is not part of the 34 MT.

A figure showing the 61.5 MT plutonium declared surplus and related disposition paths has been added to Section 1.1 of the Final SPDP EIS as a result of these comments.

2.3 Support for the Proposed Action

Comments: (17-5) (22-5) (44-1) (57-3-3) (77-1-2) (84-1) (86-7)

Commenters indicated their support for the Proposed Action to safely and securely disposition the surplus plutonium such that it could never again be readily used in a nuclear weapon.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

2.4 Opposition to the Proposed Action

Comments: (19-1) (47-8) (55-12-2) (58-7-1) (75-4)

Commenters expressed opposition to the proposed action. One commenter stated that NNSA should reassess national security and the need for material given that the Plutonium Management and Disposition Agreement with Russia is no longer in effect and there have been changes in global security since the need for plutonium disposition was defined. A commenter indicated that upon completion of national security reassessment, NNSA would need to update the alternatives and resume the EIS process. One commenter opposed the disposition of surplus plutonium and any relocation that would increase the burden on communities. One commenter opposed the proposed action due to safety concerns because it would destabilize the plutonium from a form that is shielded and easily stored.

Response: NNSA acknowledges receipt of these comments. In Section 1.1 of this SPDP EIS, NNSA discusses the *Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning the Management and Disposition of Plutonium Designated as No Longer Required for Defense Purposes and Related Cooperation* (PMDA) that was signed in 2000 (United States of America and Russian Federation 2000). Despite Russia's purported unilateral suspension of the PMDA, the United States remains committed to the safe and secure disposition of 34 MT of surplus weapons-grade plutonium (IPFM 2016; DOS 2020; DOS 2021), so it can never again be readily used in nuclear weapons.

The PMDA allows the parties to agree to change their method of disposition—a provision that has been invoked in the past by both Russia and the United States. Consistent with the PMDA, the United States has informed Russia of its intention to pursue dilute and dispose. The U.S. Department of State has formally taken the position that “[n]either side is in violation of the PMDA” (DOS 2020) and that dilute and dispose “would allow the United States to begin fulfilling the goals of the agreement more quickly” (DOS 2018|pg. 9|).

Safety is discussed briefly in various sections, primarily in Sections 3.2.7 and 3.3.7 of this SPDP EIS. Activities conducted at facilities operated by DOE must adhere to regulations found in Title 10 of the *Code of Federal Regulations* (CFR) Part 835 (10 CFR Part 830), Nuclear Safety Management]; 10 CFR Part 835, Occupational Radiation Protection; and 10 CFR Part 851, Worker Safety and Health Program. Transportation safety must adhere to regulations found in 10 CFR Part 71. DOE follows these requirements for all activities that make up the dilute and dispose strategy. In Sections 2.1.1.2.6 and 2.1.2.5 of this SPDP EIS, the NNSA describes the transportation routes associated with the Preferred Alternative and the No Action Alternative, respectively. In Section 4.1.6, NNSA presents the results of the impact assessment of these transportation activities including accidents that could occur during

transportation. Appendix E presents the details of the evaluation of human health effects related to transportation including accidents. In Sections 4.1.2.7.4 and 4.1.3.7.4, NNSA discusses the evaluation of transportation-related intentional destructive acts.

Additional information regarding effects on communities can be found in Sections 4.1.2.9, 4.1.3.9, 4.1.2.12 and 4.1.3.12.

In Section 2.1.1.2.2, NNSA discusses the oxidation and dilution processes and the types of containers that would be used following oxidation of plutonium and following dilution of the plutonium oxide. The containers provide for appropriate storage and shielding capabilities.

These comments did not result in a modification in the Final EIS.

3.0 Scope and Content of the EIS

3.1 Changes Needed in the EIS

Comments: (10-4) (40-3) (40-4) (71-8) (71-9) (71-19) (79-1-7) (79-1-15)

Commenters requested changes to the EIS including (1) evaluating the potential impacts and contamination from the proposed approach as well as the use of resources; (2) revising the summary section to include a thorough explanation of the summary table; (3) adding a missing link to a Section reference; (4) assuring consistency of references to pit or non-pit plutonium; (5) updating references in Section 4.1.5 (WIPP); (6) addressing liability issues in the event of an accidental release of nuclear material during transport or at the final disposition site; (7) describing Los Alamos National Laboratory's (LANL's) cleanup struggles and the 2014 accident at the WIPP facility involving noncompliant packaging; (8) examining LANL's safety record and establishing benchmarks for evaluating environmental conditions in communities downstream and downwind of LANL. Commenters (9) also expressed difficulty in understanding the overall framework of the program in the discussion of alternatives that were considered but dismissed from detailed study in this SPDP EIS, because the information is provided in many different documents. Commenters suggested that relevant portions of other documents be included in the Final SPDP EIS with appropriate updates.

Response: (1) Section 4.0 Environmental Consequences provides a description of the potential environmental consequences of the actions described in this EIS, including the potential impacts of resource use, impacts of waste generation and storage, and impacts on human health. In the human health analyses provided in Sections 4.1.2.7 and 4.1.3.7 of this SPDP EIS, NNSA estimates the potential impacts on workers and the population from radiation and chemicals. Impacts on humans are evaluated rather than levels of contamination. These comments did not result in a modification in the Final EIS.

(2, 3, 4) NNSA has revised the Summary to provide a more in-depth description of Table S-10. NNSA corrected the section call-outs in Sections 4.2.3.1.6 and 4.2.3.2.6. NNSA reviewed the consistent use of pit and non-pit plutonium terminology and no changes have been made.

(5) NNSA updated references and associated information throughout the Final EIS as appropriate. However, it is important and useful to provide references to previous NEPA documents and especially to the tiered EIS as occurred in Section 4.1.5 of this SPDP EIS. A discussion of the reasoning behind

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the strategy of referencing previous NEPA documents is found in Section 1.1 and the first paragraph of Section 1.4 of this SPDP EIS.

(6) The Price-Anderson Nuclear Industries Indemnity Act and the Price Anderson Amendments Act allow DOE to indemnify its contractors if the contract involves the risk of public liability from a nuclear incident. It establishes a system of financial protection for persons who may be liable for and persons who may be injured by a nuclear incident arising from activities conducted by or on behalf of DOE, including transportation of nuclear or radioactive materials. These comments did not result in a modification in the Final EIS.

(7, 8) Section 3.2.7 discusses the safety programs at LANL and health requirements and regulations that will need to be adhered to at LANL for the Surplus Plutonium Disposition Program (SPDP) activities. The same section contains references to past environmental surveillance and monitoring reports for LANL as a means of describing the existing environment. Section 3.2.7.4 indicates that NNSA reviewed LANL annual environmental reports to determine if there were any unplanned release of radioactivity in the last 5 years for which data was available. There were no unplanned releases reported. The text directs the reader to two earlier documents that provide a discussion of release from earlier years. Other documents provide information on past unintentional releases or accidents (DOE 2016a; DOE 2021c; LANL 2020). These comments did not result in a modification in the Final EIS.

(9) Section 2.2 discusses alternatives considered but dismissed from detailed study, and incorporates relevant information from previous NEPA reviews, consistent with CEQ regulations and guidance associated with tiered NEPA documents. Brief summaries of the alternatives considered but dismissed from detailed analysis as well as the rationales for their dismissal are provided in Tables 2-6, 2-7, and 2-8. These comments did not result in a modification in the Final EIS.

3.2 National Academy of Sciences Recommendations

Comments: (54-5) (57-8-2)

One commenter stated that, as recommended by the NASEM (NASEM 2020), public trust will need to be developed and maintained to keep the public informed. Another commenter stated that, as recommended by the NASEM, further assessments are needed related to:

- commitment to long durations of the disposition program
- safeguards and security requirements including classifications
- capacity at the WIPP facility, and
- programmatic details related to the involvement of multiple Federal and State agencies.

Response: NNSA recognizes the need for stakeholders' awareness of NNSA missions. NNSA hosted public forums in Santa Fe and Carlsbad related to NNSA missions. DOE has a mature program in place to train, support, and notify states and communities along established transportation routes to the WIPP facility (DOE 2016b). DOE will use these established processes and relationships and, if necessary, enhance awareness to address transportation of SPDP contact handled-transuranic (CH-TRU) waste as the program develops and more plans for shipping evolve and mature.

NNSA has reviewed and considered the NASEM recommendations regarding safeguards, security, transportation, and regulatory compliance. This SPDP EIS addresses transportation in Section 4.1.6 and Appendix E. Regulatory Compliance is addressed in Section 5. Safeguards and security are the subjects of other reports that are separate from this EIS and because of classification requirements are not accessible to the public.

As indicated in the revised text in Section 4.1.5.1 of this Final SPDP EIS, the 34 MT of surplus plutonium proposed for disposal at WIPP via the dilute and dispose strategy is less than 2 percent of WIPP's authorized total transuranic (TRU) waste volume capacity limit under the WIPP Land Withdrawal Act (WIPP LWA) (SRNS 2023).

These comments did not result in a modification in the Final EIS.

3.3 Monitoring and Inspections

Comments: (10-12) (13-7)

Commenters stated that the NNSA should clarify if the dispositioned surplus plutonium will be monitored and inspected as required by the PMDA.

Response: The United States is working with the International Atomic Energy Agency to determine how to address the third-party verification of the disposition of surplus plutonium, but those plans have not been finalized. These comments did not result in a modification in the Final EIS.

4.0 Dilute and Dispose

4.1 Adulterant

Comments: (56-4-5) (58-18-1)

Commenters requested information about the adulterant to be used during the dilution process. One commenter asked how much water would be used to dilute the plutonium and asked about alternatives to dilution.

Response: In Section 2.1 of this SPDP EIS, NNSA provides information about the nature of the adulterant that would be used in the dilution process. Water is not used to dilute the plutonium oxide. The dilution process combines the plutonium oxide with an adulterant that contains nonhazardous inorganic materials to form a chemically stable matrix suitable for plutonium disposition. The multi-component adulterant is designed to impede recovery of the surplus plutonium such that the waste form complies with DOE Safeguards and Security requirements (NNSA 2022). Because of classification requirements, further description of the adulterant is not available to the public.

These comments did not result in a modification in the Final EIS.

4.2 Dilute and Dispose Concerns

Comments: (10-5) (11-12) (21-2) (39-2-16) (44-2) (46-1) (47-2) (52-3) (56-2-2) (56-3-3) (56-4-2) (56-10-2) (56-10-4) (57-2-1) (58-8-2) (58-18-2) (58-20-1) (73-1) (80-3) (80-9) (82-4) (88-4)

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Commenters expressed concerns about the dilute and dispose strategy for a variety of reasons including (1) creation of hazardous plutonium oxide, (2) physical hazards that result from processing plutonium into plutonium oxide, (3) potential safety issues at facilities that will be used, (4) dilution of plutonium to meet the WIPP waste acceptance criteria, (5) lack of demonstration of safety or effectiveness at the scale required, (6) the dilute and dispose process will not destroy or get rid of plutonium, (7) increased amounts of radioactive waste, (8) transportation, and (9) environmental and social justice.

Response: (1 - 3) Facility safety programs that protect workers and the public from radiological hazards are discussed in Sections 3.2.7 and 3.3.7 of this SPDP EIS. Potential radiological impacts from the Preferred and No Action Alternatives are discussed in Sections 4.1.2.7 and 4.1.3.7. (4) Dilution of the plutonium oxide to impede recovery such that the waste form complies with DOE requirements for termination of safeguards is addressed in Section 2.1. (5, 6) In Section 2.1.1, NNSA discusses the previous demonstration and evaluation of dilution as a viable approach for dispositioning surplus plutonium. (7, 8) Waste management and transportation concerns are addressed in Sections 4.1.2.11, 4.1.3.11 and 4.1.6, respectively. (9) In Sections 4.1.2.12 and 4.1.3.12, NNSA addresses potential environmental justice impacts from the Preferred and No Action Alternatives. These comments did not result in a modification in the Final EIS.

4.3 Support for Dilute and Dispose Strategy

Comments: (9-1) (9-3) (14-2) (16-3) (16-5) (26-1) (55-1-2) (55-4-1) (55-7-1) (55-8-1) (55-11-1)

Commenters supported the dilute and dispose strategy for a variety of reasons including that it is a proven method that is technically sound, safe, and cost-effective.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

4.4 Opposition to the Dilute and Dispose Strategy

Comments: (57-2-8) (69-13) (84-2) (90-1)

Commenters expressed opposition to the dilute and dispose strategy. One commenter indicated that changes to existing processes that would occur at LANL could potentially require modifications to existing environmental permits or necessitate additional environmental permits.

Response: NNSA acknowledges receipt of these comments. In Section 5.3.1 of this SPDP EIS, NNSA discusses the permits that would be required at LANL. These comments did not result in a modification in the Final EIS.

5.0 Preferred Alternative

5.1 Additional Information Regarding the Preferred Alternative

Comments: (22-4) (24-3) (39-2-7) (49-1) (49-2) (49-3) (49-4) (57-1-5) (57-13-3) (57-14-1) (58-5-3) (58-13-1) (68-1-3) (68-1-10) (71-13) (74-5) (75-1) (76-3) (77-1-13) (83-1) (85-4) (88-1)

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Commenters addressed questions to NNSA or requested additional information to be added to the Final EIS related to the Preferred Alternative, including the following: (1) reasons for proposing the Preferred Alternative; (2) explanation of inconsistency with other DOE actions, such as the Versatile Test Reactor (VTR); (3) clarification that surplus plutonium at Rocky Flats was non-pit plutonium; (4) the type, volume, number, and location of pits and the physical form of resulting plutonium oxide; (5) processing rates in facilities and volume of material disposed at the WIPP facility; (6) using up-to-date information in the analysis including the most recent NEPA EIS coverage for the four sites that are considered in the SPDP EIS; (7) how the analysis in Appendices D (postulated accidents) and E (transportation) accounted for the larger amount of plutonium analyzed in the SPDP EIS as compared to the *Final Surplus Plutonium Disposition Supplemental Environmental Impact Statement* (2015 SPD Supplemental EIS or 2015 SPD SEIS [DOE 2015a]) and how the calculations from the 2015 SPD SEIS were revised; (8) a thorough impact assessment for South Carolina; (9) an assessment of the risk of contamination of New Mexico's natural resources; (10) continuous monitoring of the condition of vehicles and containers; (11) quantity of plutonium in South Carolina—number of truckloads and who weighs the material; (12) how the Preferred Alternative affects the plutonium settlement agreement between DOE and the State of South Carolina; and (13) the definition of safety.

Response: (1) The selection of the alternatives evaluated in this SPDP EIS, including the Preferred Alternative, was based on current technology and is consistent with other DOE actions discussed in Section 2.1.1 of this SPDP EIS. In Section 1.2, NNSA describes the purpose and need for action and indicates that surplus plutonium disposition needs to occur in a reasonable time frame, and as a result, NNSA determined that “mature methods and proven technologies” need to be employed. These comments did not result in a modification in the Final EIS.

In comparison, (2) Section 2.2 indicates that although DOE has decided to construct and operate a VTR, the VTR is in the early stages of design, and thus cannot be considered a mature method or a proven technology. These comments did not result in a modification in the Final EIS.

(3) The words “non-pit plutonium” have been added into the discussion in Section 2.1.1 of this Final SPDP EIS to clarify that the surplus plutonium at Rocky Flats was non-pit plutonium.

(4) Radiological dose and chemical exposure to workers can vary as a result of the composition of pit types. NNSA incorporated this variation when calculating the impacts shown in Sections 4.1.2.7 and 4.1.3.7 (exposure to workers) and Sections 4.1.2.9 and 4.1.3.9 (number of workers) of this SPDP EIS. The references cited in these sections account for the various pit types that NNSA would process. Section 2.1.1.2.1 indicates that the pits are stored at Pantex Plant (Pantex). Section 2.1.1.2.6 indicates that an assumption that non-pit plutonium would be shipped from either LANL or Savannah River Site (SRS) to the other site is used for a bounding analysis for transportation impacts. As discussed in Section 2.1.1, the exact amounts of pit and non-pit forms of plutonium that compose the 34 MT and the exact locations are not discussed because of classification requirements.

The metric tons of plutonium are used as a basis for the analysis in this EIS, rather than the number of pits, because it is a more accurate measurement for the activities that will occur in dispositioning surplus pits. The plutonium oxide produced from pit and non-pit processing would be in a powder form. This clarification has been made in Section 2.1.

(5) The throughput assumed for each process step is found in Table B-2 of Appendix B in this SPDP EIS and text has been added to Section 2.1.1.2 to clarify this. The volume of material sent to the WIPP

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facility is mentioned in Section 4.1.5.1 and the fraction of the Land Withdrawal Act volume expected from the preferred alternative is discussed in Response 8.1 in this Appendix.

(6) The most recent references available were used in this SPDP EIS for the five sites that were considered. Supplemental Analyses are published as updates to the EISs. The most recent Supplemental Analyses include:

- Pantex Supplement Analysis – DOE/EIS-0225-SA-06, published in June 2018 as DOE (U.S. Department of Energy). 2018. *Final Supplement Analysis for the Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components*. Washington, D.C. June. Available online: https://pantex.energy.gov/sites/default/files/final_sa_0618.pdf.
- LANL – Supplement Analysis – DOE/EIS-0380-SA-05 published in April 2018 - DOE (U.S. Department of Energy). 2018. *Supplement Analysis of the 2008 Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory*. DOE/EIS-0380-SA-05, National Nuclear Security Administration, Los Alamos Field Office, Los Alamos, New Mexico. April. Available online: https://www.energy.gov/sites/default/files/2018/05/f51/EIS-0380-SA-05_2018_0.pdf.
- Y-12 National Security Complex – Supplement Analysis – DOE/EIS-0387-SA-03 published in August 2018 - DOE (U.S. Department of Energy). 2018. *Supplement Analysis for the Site-Wide Environmental Impact Statement for the Y-12 National Security Complex*. DOE/EIS-0387-SA03, National Nuclear Security Administration, Washington, D.C. August. Available online: <https://www.energy.gov/sites/default/files/2018/09/f55/EIS-0387-SA-03-2018.pdf>.
- WIPP - Supplement Analysis – DOE/EIS-0026-SA-12 published in April 2021 - DOE (U.S. Department of Energy). 2021. *Supplement Analysis for The Waste Isolation Pilot Plant Site-Wide Operations*. DOE/EIS-0026-SA-12, Revision 0, Carlsbad, New Mexico. April. Available online: <https://www.energy.gov/sites/default/files/2021-04/supplement-analysis-eis-0026-sa-12-wipp-2021-04-08.pdf>.

Although SRS does not have a sitewide EIS, the information in the 2015 SPDP SEIS is comprehensive enough that it can be cited as a recent EIS addressing information relevant to the current proposed action. In addition to the site-wide EIS supplements, the sites published annual site environmental reports that are also cited in this SPDP EIS. These comments did not result in a modification in the Final EIS.

(7) The accident analysis for this SPDP EIS was revised to closer reflect the site's Design Safety Analyses (DSAs) as explained in further depth in Appendix D and in Response 17.1. The accident descriptions are those used in the LANL and SRS DSAs, augmented to reflect new systems or facilities, and SPDP material at risk (MAR).

Appendix E has been revised to clarify that the reference to the 2015 SPD SEIS was to the generic information, background regulations and requirements rather than a description of the analysis. Sections E.1 and E.4 have been revised to indicate that although the transportation risk assessment is based on the same methodology given in the 2015 SPD SEIS, it uses the transportation routes shown in Figures E-2 and E-3 of this SPDP EIS (as described in Sections E.4.1, 2.1.1.2.6 and 2.1.2.5).

(8) Section 4.1.3 of this SPDP EIS describes the potential environmental impacts associated with proposed activities at SRS, including human health (4.1.3.7), air quality (4.1.3.4), water (4.1.3.3), and waste (4.1.3.11). Section 4.1.3.7 includes the potential radiological health impacts on the population in a 50 mi radius from construction and operations activities, the potential radiological impacts on the maximally exposed member of the public, and the estimated health impacts from an accidental radiological release. Section 4.2 describes the cumulative impacts from past, present, and reasonably foreseeable future actions in the vicinity of SRS. These comments did not result in a modification in the Final EIS.

(9) Section 4.1.2.7.2 of this SPDP EIS contains an assessment of potential human health consequences of activities at LANL associated with the Preferred and No Action Alternatives. For this evaluation, the bounding natural phenomena event analyzed is a design-basis earthquake. Because of the uncertainty associated with extremely low probability events (probability of less than one chance in one million years of occurring) designated as “Beyond-design-basis,” they are not described in the Section 4 and the corresponding table of bounding radiological accident impacts at LANL (Table 4-7), but they are included in Appendix D.

Although the accident consequences are provided as potential impact on humans (radiological dose to the population within 50 mi and radiological dose to the maximally exposed member of the public), the same accident would result in radiological contamination of the landscape surrounding LANL. As indicated in tables in Appendix D, accidents with the highest probability generally result in the lowest potential doses to the off-site population and thus the lowest potential levels of contamination. These comments did not result in a modification in the Final EIS.

(10) Canisters are tracked within the facility as they move between locations. As discussed in Section 2.1.1.2.1 and Section 2.1.2.2.2 of this SPDP EIS, the pit and non-pit plutonium and the plutonium oxide would be shipped using transporters from the NNSA’s Office of Secure Transportation (OST). OST uses secure and highly modified tractor-trailers that are escorted by other vehicles containing armed Federal agents who provide both security and incident response in case of emergencies. The OST’s Transportation and Emergency Control Center monitors the status and location of the convoys and maintains real-time communication 24 hours a day, 365 days a year, along with an emergency contact directory of Federal and state response organizations throughout the contiguous United States (NNSA 2023).

The vehicles that transport the diluted plutonium oxide to the WIPP facility are contracted by the DOE Carlsbad Field Office (CBFO). DOE uses a dedicated professional trucking firm that has years of experience in transporting hazardous materials and excellent safety records. Conventional diesel trucks equipped with a satellite tracking system are used. The vehicles are tracked by a central control room located at the WIPP facility and are equipped with a redundant two way communication system (DOE 2023b). Vehicles are inspected before leaving a transuranic (TRU) waste generator site using the Commercial Vehicle Safety Alliance Level VI standards. Drivers are also required to stop their trucks and check the cargo every three hours or every 150 mi. These comments did not result in a modification in the Final EIS.

(11) Table 4-33 in this SPDP EIS shows the number of shipments for each type of material or waste and for each sub-alternative. Similar information in more detail is found in Appendix E. As part of the dilution step, the plutonium oxide would be weighed by either LANL or SRS employees (depending on the sub-alternative) while it is in a glovebox. As described in Section 2.1.1.2.2 (LANL), a characterization

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process is also conducted by CBFO/WIPP staff before it leaves the waste generation site. Section 2.1.1.2.3 indicates that the characterization and packaging (C&P) and shipment process currently used at SRS is identical to that described for LANL. The characterization and packaging process is conducted to verify that the shipments comply with the WIPP waste acceptance criteria. These comments did not result in a modification in the Final EIS.

(12) NNSA acknowledges that the EIS does not include a discussion of the 2020 Agreement with the State of South Carolina on the removal of 9.5 MT of plutonium from the state. The assumptions used in this SPDP EIS are separate from the schedule and commitments NNSA has made to the State of South Carolina (DOE 2020c). NNSA has committed to periodic briefings on progress toward meeting the removal commitment to the Governor and the Attorney General of South Carolina. The purpose of the EIS is to determine and disclose the impacts that will occur as a result of the proposed action. The statement in Section 4.0 that "The assumed throughputs and durations used for the impact analyses are based on current plans and schedules and may be different from the schedules actually achieved" was included to make the reader aware that the assumed dates were used solely to bound the analysis and are not considered a commitment or a revision or renegotiation of previous commitments. These comments did not result in a modification in the Final EIS.

(13) DOE Policy 420.1 indicates that it is the policy of DOE to design, construct, operate, and decommission its nuclear facilities in a manner that adequately protects workers, the public, and the environment. It further lists key nuclear safety elements, including "hazard identification, assessment and control; facility design; quality assurance; and safety management programs to ensure a high level of formality of operations, such as procedures, maintenance, personnel training, conduct of operations, criticality safety, emergency preparedness, fire protection, radioactive waste management, and radiation protection." The aforementioned nuclear safety requirements are in addition to the industrial safety aspects regulated by the Occupational Safety and Health Administration and other regulations which are addressed in this EIS (DOE O 440.1B, *Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees* (Change 4, 05/02/2022)). These comments did not result in a modification in the Final EIS.

5.2 Schedule and Cost

Comments: (22-3) (47-10) (58-12-3) (58-13-2) (58-30-4) (75-6) (77-1-10) (79-2-7)

Commenters requested additional information concerning the program time frame and cost of the Preferred Alternative.

Response: As discussed in Appendix B of this SPDP EIS, NNSA has estimated operational durations that would result in completion of the 34 MT mission in FY 2050. Table B-1 provides durations of construction and modification activities, and Table B-2 provides durations of operations activities. Cost is among the factors that decision-makers may consider when selecting an alternative for implementation, but it would not have any significant bearing on the analysis of potential environmental impacts and therefore is not discussed in this SPDP EIS. These comments did not result in a modification in the Final EIS.

5.3 Support for the Preferred Alternative

Comments: (6-2) (6-4) (14-1) (14-3) (14-4) (15-1) (16-1) (20-2) (31-1) (33-1) (33-2) (40-1) (55-1-1) (55-6-2) (57-1-3) (57-8-1) (57-9-1) (57-12-1) (58-24-2) (70-1) (73-2)

Commenters supported the Preferred Alternative or supported the role of SRS, LANL, and/or the WIPP facility as part of the Preferred Alternative based on safety culture and experience.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

5.4 Support for a Specific Sub-Alternative

Comments: (13-3) (17-2) (17-6) (27-1) (33-3) (55-9-2) (58-24-3) (66-3) (90-4)

Commenters indicated their support for specific sub-alternatives. In general commenters supported either the All LANL or the All SRS Sub-Alternative.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

5.5 Concern and Opposition to the Preferred Alternative or Specific Sub-Alternatives

Comments: (10-8) (10-16) (11-4) (11-5) (13-2) (16-2) (21-5) (32-1) (34-1) (35-1) (37-1) (39-1-1) (39-1-2) (54-8) (55-5-1) (55-9-1) (56-5-1) (56-7-1) (56-7-2) (56-8-2) (56-11-2) (57-1-2) (58-7-4) (58-8-1) (58-14-1) (58-17-2) (58-19-3) (58-22-3) (58-22-5) (58-27-5) (61-3) (61-4) (61-6) (61-7) (62-1) (63-3) (69-1) (69-4) (69-5) (77-1-3) (77-1-11) (77-1-15) (79-1-10) (79-1-14) (82-10) (84-4) (84-5) (85-1) (88-12)

Commenters objected to the Preferred Alternative or expressed a variety of concerns. Commenters also indicated concern about specific sub-alternatives. Concerns regarding the Preferred Alternative and sub-alternatives include the following:

- the use of facilities at LANL based on safety incidents, potential impacts on human health and other programs, ventilation system problems, limited space, potential for fires and seismic activity, and aging equipment
- the use of facilities at SRS based on safety concerns
- the use of new facilities, which would be expensive and result in a delay of plutonium processing
- the number of shipments required for transportation across the country
- the potential for accidents, leaks, or terrorist actions during operations and transportation
- potential risks including the risk of a criticality
- cost
- the lack of a demonstration for diluting and disposing of pit plutonium.

Response: Facility safety concerns and the schedule and cost of the program are discussed respectively, in Responses 2.4 and 5.2. Potential facility modifications, equipment and spacing needs, and impacts on other programs are discussed in Appendix B. In Section 2.1.1 of the SPDP EIS, NNSA discusses the previous demonstration and evaluation of dilution as a viable approach for disposition of surplus plutonium. Transportation and accident analyses are addressed in Sections 4.1.6, 4.1.2.7, and 4.1.3.7. Intentional destructive acts are addressed in Section 4.1.2.7.4 and 4.1.3.7.4. These comments did not result in a modification in the Final EIS.

6.0 No Action Alternative

6.1 Definition of the No Action Alternative

Comments: (85-3)

One commenter stated that the No Action Alternative should include removal of weapons-grade plutonium from the State of South Carolina as required by the August 28, 2020 Settlement Agreement.

Response: On August 31, 2020, DOE and the State of South Carolina signed a settlement agreement with respect to the State's lawsuit and the ongoing removal of 9.5 MT of plutonium from the State. The settlement agreement provided an upfront payment of \$600 million to the State of South Carolina and allowed DOE more time (through 2037) to safely remove the plutonium from the State without the threat of lawsuits.

The No Action Alternative is described in Section 2.1.2 of this SPDP EIS. It includes continued management of up to 34 MT of surplus plutonium including continued storage of plutonium pits at Pantex. It also includes disposition of up to 7.1 MT of non-pit surplus plutonium as previously announced in NNSA's 2020 AROD (85 FR 53350). As discussed in Section 1.1, a previous decision resulted in a commitment to disposition an additional 6 MT of non-pit surplus plutonium (81 FR 19588). The 13.1 MT of surplus plutonium included in these two recent disposition decisions includes the 9.5 MT of plutonium covered under the 2020 Settlement Agreement.

A figure showing the disposition path for the surplus plutonium has been added to Section 1.1 of the Final SPDP EIS as a result of this comment.

6.2 Support for the No Action Alternative

Comments: (57-13-2) (58-7-5) (71-6)

Some commenters supported selection of the No Action Alternative.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

6.3 Opposition to the No Action Alternative

Comments: (66-2)

A commenter stated that the No Action Alternative is not a viable alternative because the plutonium has been declared surplus. Once the material is diluted and disposed of, the non-proliferation agreement would be met.

Response: NNSA acknowledges receipt of this comment. The CEQ NEPA regulations at 40 CFR Part 1502.14 require analysis of a No Action Alternative. This comment did not result in a modification in the Final EIS.

7.0 Additional Alternatives

7.1 Description of the Additional Alternatives

Comments: (3-1) (86-1)

One commenter expressed concern that there was no full discussion of alternatives that were dismissed. Another commenter suggested funding-related revisions for the VTR discussion.

Response: Section 2.2 of this SPDP EIS describes alternatives that were considered but eliminated from detailed study. Because this SPDP EIS tiers from, and is related to, previous NEPA documents about surplus plutonium disposition, Section 2.2 summarizes alternatives considered and eliminated from detailed study in the previous NEPA documents. Table 2-6 describes such alternatives and the reasons DOE dismissed them in the *Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement* (DOE 1996b). Similarly, Table 2-7 describes such alternatives considered in the *Surplus Plutonium Disposition Final Environmental Impact Statement* (DOE 1999), and Table 2-8 describes the additional alternatives considered in the 2015 SPD SEIS (DOE 2015a). Additional alternatives were evaluated in these previous NEPA documents and do not need to be evaluated again because they were not selected for consideration for SPDP. See the original NEPA documents for more information.

The commenter is correct that Congress did not authorize funding for the VTR in FY 2022 or 2023 but had authorized funding in previous years. Based on this comment, changes have been made to Section 2.2 of the Final SPDP EIS.

7.2 Alternative Use of Surplus Plutonium

Comments: (44-3) (55-12-3) (56-2-3) (58-5-4) (79-1-2) (79-2-1)

Commenters stated that surplus plutonium should be repurposed, reused as pits, used for MOX fuel, or used in advanced reactors.

Response: As described in Section 1.1 of this SPDP EIS, in 1994, the President of the United States declared 52.5 MT of plutonium to be surplus to the defense needs of the Nation. In 2007, the United States declared an additional 9 MT of plutonium to be surplus. In 2000, discussions that had begun in the 1990s culminated in the United States and the Russian Federation signing the PMDA (United States of America and Russian Federation 2000). The two nations agreed to each dispose of no less than 34 MT of weapons-grade plutonium in forms not readily usable in nuclear weapons. Despite Russia's purported unilateral suspension of the PMDA, the United States remains committed to the safe and

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secure disposition of 34 MT of surplus weapons-grade plutonium (IPFM 2016; DOS 2020; DOS 2021), so it can never again be readily used in nuclear weapons.

As described in the *Final Environmental Impact Statement for Plutonium Pit Production at the Savannah River Site in South Carolina* [Pit Production EIS (DOE 2020a)], from 1944 to 1992, DOE produced plutonium in government-owned nuclear reactors and extracted the plutonium from irradiated target material to produce plutonium for pits. NNSA can store up to 20,000 pits at Pantex. Because the pits would provide the feedstock for pit production activities at LANL and SRS, there is no need for NNSA to produce any new plutonium; rather, NNSA is remanufacturing existing, but aged, pits into new pits. Therefore, the surplus plutonium is not needed for pit production.

As described in Section 1.1 of this SPDP EIS, in 1999, DOE completed the *Surplus Plutonium Disposition Final Environmental Impact Statement* (DOE 1999), in which it evaluated MOX fuel fabrication alternatives, as well as siting alternatives for the Mixed Oxide Fuel Fabrication Facility (MFFF). In a 2000 ROD (65 FR 1608), DOE documented its decision to pursue a hybrid approach to disposition surplus plutonium, which included using surplus plutonium to fabricate MOX fuel for irradiation in domestic commercial nuclear power reactors and constructing and operating an MFFF at SRS. In May 2018, the Secretary of Energy halted construction of the MFFF certifying “that the remaining lifecycle cost for the dilute and dispose approach will be less than approximately half of the estimated remaining lifecycle cost of the MOX fuel program” (DOE 2018a). On February 8, 2019, the U.S. Nuclear Regulatory Commission (NRC) terminated the construction license for MFFF (NRC 2019).

As described in Section 2.2 of this SPDP EIS, advanced reactors were previously considered and eliminated from detailed study for various reasons including technology immaturity, cost, timing, and regulatory uncertainties. An alternative that considers the VTR a potential disposition path for surplus plutonium is premature at this time. If DOE proposes in the future to make a portion of its surplus plutonium inventory available as feedstock for VTR driver fuel, the VTR Program would be responsible for any technical activities and process changes that may be necessary to accept this source of feedstock. Any changes to allow use of other surplus plutonium as feedstock for VTR fuel production would be the subject of future NEPA analysis.

These comments did not result in a modification in the Final EIS.

7.3 Immobilization

Comments: (21-3) (55-5-3) (56-1-2) (56-1-3) (56-1-5) (56-9-1) (56-9-4) (56-9-7) (57-3-1) (57-12-4) (58-5-6) (58-11-2) (61-11) (67-2) (67-4) (67-7) (69-11) (71-11) (77-2-6) (79-1-19) (84-10) (84-12)

Commenters stated that immobilization of surplus plutonium should be re-examined. Immobilization options proposed include embedding the plutonium in a ceramic matrix, vitrification, and using tank waste at SRS. Processing and storage locations proposed include the SRS and the location where the plutonium is currently stored.

Response: Immobilization in glass or ceramic material along with high-level radioactive waste (HLW) was evaluated in the *Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement* (DOE 1996b) and the *Surplus Plutonium Disposition Final Environmental Impact Statement* (DOE 1999). As discussed in these documents, an immobilization facility needs a source of HLW. The HLW storage tanks at the Hanford Site and SRS could provide

sources of HLW, therefore, immobilization was analyzed at the Hanford Site and SRS. Immobilization at SRS would involve immobilizing surplus plutonium in cans, installing the cans on a rack inside Defense Waste Processing Facility canisters, and surrounding the cans with vitrified HLW. In 2000, DOE decided to immobilize approximately 17 MT of surplus plutonium at SRS using the ceramic can-in-canister immobilization approach (65 FR 1608). In 2002, DOE decided to cancel the immobilization approach due to budgetary constraints (67 FR 19432) and continue with the MOX fuel approach for disposition of the 34 MT of surplus plutonium. In addition, as described in Section 2.3.2 of the 2015 SPD SEIS (DOE 2015a), DOE stated that a sufficient quantity of HLW remained at SRS with the characteristics needed to enable immobilization of no more than approximately 6 MT of surplus plutonium.

HLW does not exist at Pantex. HLW in liquid form would have to be transported to Pantex from another site and a new vitrification facility would have to be designed, constructed, and operated there so that a vitrification alternative could be implemented. Therefore, Pantex is not a reasonable location for an immobilization facility.

A change was made in Section 2.2 of this Final SPDP EIS to provide additional information regarding the dismissal of the can-in-canister approach at Pantex.

7.4 Other Alternatives

Comments: (4-2) (11-8) (11-10) (30-2) (36-1) (47-9) (49-13) (49-18) (53-2) (56-10-1) (56-10-3) (57-1-1) (58-8-3) (58-10-2) (62-2) (71-5) (74-1) (75-2) (77-1-4) (77-2-7) (78-2) (79-1-1) (79-1-20) (79-2-2) (82-12) (88-5) (89-4)

Commenters stated that an additional alternative should be analyzed, including one or more alternatives that do not include shipment over a vast distance. Suggested alternatives included (1) interim or permanent storage at SRS, (2) a stand-alone pit processing facility at SRS, (3) the MOX disposition pathway, (4) deep borehole direct disposition, (5) alternatives for radioactive waste disposal, and (6) demilitarization and storage of pits. One commenter asked why dilute and dispose was not selected as the proposed disposition method earlier.

Response: As described in Section 1.1 of this SPDP EIS, numerous technologies and site alternatives have been evaluated in NEPA documents and other studies prepared for surplus plutonium disposition. In addition, as described in Section 2.2, numerous alternatives were considered and eliminated from detailed study. In Section 2.2, NNSA also discusses the reason that the disposal of surplus plutonium at the WIPP facility was initially dismissed as an alternative but is now the Preferred Alternative. As described in Sections 2.1.1.1.3 and 2.1.1.1.4 of this SPDP EIS, the All LANL Sub-Alternative, and the All SRS Sub-Alternative would involve less shipment of plutonium, including less transportation of plutonium in the oxide form. Also, as described in Section 2.2, NNSA considered a Pantex Greenfield Sub-Alternative for the disposition of surplus plutonium. This sub-alternative would require the construction and operation of all facilities at Pantex. This sub-alternative was considered but found to be unreasonable and was eliminated for the following reasons:

- lack of adequate waste support facilities
- significant increase in staffing levels
- lack of plutonium processing experience
- insufficient infrastructure

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- design and construction timing challenges.

The other topics raised by the commenters are discussed below.

(1) As described in Section 1.1, in 2002 (67 FR 19432), NNSA decided to consolidate storage of non-pit surplus plutonium at SRS. Plutonium is currently stored in K-Area at SRS. As described in this SPDP EIS, DOE and the State of South Carolina signed a settlement agreement on August 31, 2020, with respect to the State's lawsuit and the ongoing removal of 9.5 MT of plutonium from the State. The settlement agreement provides an upfront payment of \$600 million to the State of South Carolina and allows DOE more time (through 2037) to safely remove the plutonium from the State without the threat of lawsuits. Therefore, permanent storage of surplus plutonium at SRS is not viable. In addition, storage is not disposition and does not meet the requirement to make the material non-proliferable. These comments did not result in a modification in the Final EIS.

(2) The All SRS Sub-Alternative, as described in Section 2.1.1.1.4 of this SPDP EIS, locates all the surplus plutonium disposition facilities at SRS. This includes a pit disassembly and processing capability. These comments did not result in a modification in the Final EIS.

(3) As described in Section 1.1 of this SPDP EIS, the construction of the MOX facility was terminated in 2018. The former MFFF is being repurposed as a pit production facility. These comments did not result in a modification in the Final EIS.

(4) As described in Section 2.2 of the EIS, deep borehole direct disposition was dismissed in the *Surplus Plutonium Disposition Final Environmental Impact Statement* (SPD EIS [DOE 1999b]) because of regulatory and siting concerns. These comments did not result in a modification in the Final EIS.

(5) As described in Section 2.1.1.2.5 of this SPDP EIS, the WIPP facility is the only waste repository authorized for permanent disposal of TRU waste generated by Atomic Energy Act defense activities in the United States. As described in Section 2.1.2.5, there are numerous options for low-level radioactive waste (LLW) and mixed low-level radioactive waste (MLLW) treatment and disposal. These comments did not result in a modification in the Final EIS.

(6) As described in Section 1.3 of this SPDP EIS, NNSA proposes to implement the dilute and dispose strategy for 34 MT of surplus plutonium to safely and securely disposition the surplus plutonium such that it could never again be readily used in a nuclear weapon. DOE's Plutonium Disposition Working Group in its report, *Analysis of Surplus Weapon Grade Plutonium Disposition Options* (DOE 2014), indicated that although the dilute and dispose strategy does not change the isotopic composition of the plutonium, it does meet two of the three criteria for minimizing accessibility and reuse through physical and chemical barriers. The physical barrier is its placement 2,150 ft below the Earth's surface in an underground salt formation at the WIPP facility and the chemical barrier is the adulterant. Demilitarization and storage of pits would not provide an acceptable degree of physical and chemical barriers, nor would it render the surplus plutonium "not readily useable in nuclear weapons" in accordance with NNSA's purpose and need for action. These comments did not result in a modification in the Final EIS.

7.5 Locations of Activities

Comments: (10-7) (46-3) (47-7) (55-9-5) (57-2-5) (58-7-2) (58-23-4) (58-27-1) (58-30-5) (58-30-7) (59-2) (61-2) (68-1-2) (86-4)

Commenters stated that surplus plutonium should be stored or processed where it is currently located to minimize risks associated with transporting plutonium. Other commenters indicated it would be best to store or process the surplus plutonium at Pantex.

Response: As described in Section 2.1.1.2.1 of this SPDP EIS, the bulk of the surplus plutonium is stored as pits at Pantex. As described in Section 2.1.1.1.4, the All SRS Sub-Alternative locates all the disposition facilities at SRS. As described in Section 2.2, NNSA considered a Pantex Greenfield Sub-Alternative for the disposition of surplus plutonium. This sub-alternative would require the construction and operation of all new facilities at Pantex. This sub-alternative was considered but found to be unreasonable and was eliminated for the following reasons: (1) lack of adequate waste support facilities; (2) significant increase in staffing levels; (3) lack of plutonium processing experience; (4) insufficient infrastructure; and (5) design and construction timing challenges. These comments did not result in a modification in the Final EIS.

8.0 Disposal at the WIPP Facility

8.1 Disposal of CH-TRU Waste from the SPDP at the WIPP Facility

Comments: (7-2) (11-2) (11-3) (49-12) (49-14) (49-16) (49-19) (52-2) (54-4) (54-7) (58-2-1) (58-3-1) (58-5-2) (58-5-5) (58-12-5) (58-14-2) (58-23-1) (58-23-5) (58-26-1) (58-40-3) (67-3) (67-5) (72-2) (77-2-2) (78-3) (78-5) (79-1-16) (79-1-18) (79-2-5) (82-3) (82-9) (86-6) (88-2) (88-3) (88-7) (89-3) (89-5) (89-7) (90-3)

Commenters stated that disposal of surplus plutonium at the WIPP facility is not acceptable, does not align with the original mission of WIPP, will violate the “social contract” with the residents of New Mexico, violates the WIPP LWA, could adversely affect future certification of the WIPP facility, and will have a negative impact on the State.

Response: Section 4.1.5 of this SPDP EIS discusses the WIPP facility, the impacts of the Preferred Alternative and the No Action Alternative on the site, NNSA’s analysis of impacts from operation of the WIPP facility, and associated NEPA documents. DOE would follow all requirements for the disposal of TRU waste at the WIPP facility.

The WIPP LWA (P.L. 102-579 as amended by P.L. 104-201) and the WIPP Resource Conservation and Recovery Act Permit allow for disposal of defense TRU and TRU mixed waste in the WIPP facility as long as the waste stream is determined to be defense-related TRU waste by Acceptable Knowledge and Non-Destructive Assay. As defined in Section 7.0 of this SPDP EIS, TRU waste is radioactive waste that is not classified as HLW and that contains more than 100 nanocuries per gram of alpha-emitting TRU isotopes with half-lives greater than 20 years, except for waste that DOE has determined, with the concurrence of the U.S. Environmental Protection Agency (EPA), does not need the degree of isolation called for by 40 CFR Part 191; or waste that the NRC has approved for disposal case-by-case in accordance with 10 CFR Part 61 (DOE Order 435.1). The waste stream must comply with the WIPP Waste Acceptance Criteria (WAC) and the WIPP Permit Waste Analysis Plan by passing a TRU waste certification audit, an

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inspection by EPA, and New Mexico Environment Department (NMED) approval of the final audit. As indicated in the revised text in Section 4.1.5.1 of this SPDP EIS, the 34 MT of surplus plutonium proposed for disposal at WIPP via the dilute and dispose strategy is less than 2 percent of WIPP's authorized total TRU waste volume capacity limit under the WIPP LWA (SRNS 2023).

The TRU waste projected to be generated through SPDP is defense-related CH-TRU waste. Surplus plutonium (or weapons-grade, or weapons-usable) CH-TRU waste that has been downblended with an adulterant has been disposed of at the WIPP facility in the past and has been described in several documents that were subject to public review and comment (e.g., *Final Environmental Impact Statement, Waste Isolation Pilot Plant* [DOE 1980]; the *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement* [WIPP SEIS; DOE 1997b]; and the 2002 *Supplement Analysis for the Disposal of Certain Rocky Flats Plutonium-Bearing Materials at the Waste Isolation Pilot Plant*, DOE/EIS-0026-SA-3 (DOE 2002). The WIPP facility has received and safely and compliantly disposed of CH-TRU waste derived from surplus plutonium in the past from generators and storage sites, including but not limited to Rocky Flats and SRS.

In Section 4.1.5.2 of this SPDP EIS, NNSA discusses the WIPP Performance Assessment and performance assessment calculations performed in support of SPDP. If NNSA decides to implement the proposed action, the SPDP CH-TRU waste stream would be moved from the ATWIR Potential category to the ATWIR WIPP-bound category at the next ATWIR publication and it could then be included in a future performance assessment compliance calculation that would be submitted to EPA.

CBFO conducts ongoing discussions with New Mexico stakeholders and the public as part of its efforts to continue a transparent outreach program. This outreach includes members of the public, local stakeholders, the State regulator, and State and local officials.

8.2 Impacts from Disposal of Surplus Plutonium at the WIPP Facility

Comments: (11-9) (11-11) (13-8) (22-2) (39-2-10) (47-6) (51-2) (55-5-2) (55-10-2) (56-9-6) (58-6-1) (58-12-2) (58-32-2) (58-39-1) (68-2-2) (69-7) (77-1-18) (77-1-20) (80-8) (82-2) (82-8) (84-7) (84-8) (90-2)

Commenters stated that disposal of this amount of surplus plutonium at the WIPP facility will exceed volume and timeline agreements, strain operational capacity, slow removal of waste from LANL, expand the WIPP facility indefinitely, violate Hazardous Waste Permit requirements, and conflict with proposed conditions in the draft Hazardous Waste Permit that is part of the Permit renewal process.

Response: In Section 4.1.5 of this SPDP EIS, NNSA discusses the WIPP facility, the impacts of the Preferred Alternative and the No Action Alternative on the site, NNSA's analysis of impacts from operation of the WIPP facility, and associated NEPA compliance documents. DOE would follow all requirements for the disposal of TRU waste at the WIPP facility.

As indicated in the revised text in Section 4.1.5.1 of this SPDP EIS, the 34 MT of surplus plutonium proposed for disposal at WIPP via the dilute and dispose strategy is less than 2 percent of WIPP's approved capacity under the WIPP LWA (SRNS 2023). Consequently, disposal of CH-TRU waste from the SPDP at the WIPP facility would not cause a TRU waste volume capacity increase beyond the WIPP LWA volume capacity limit of 175,564 m³ (6.2 million ft³). TRU waste volume estimates, such as those provided in NEPA documents, cannot be used to determine compliance with the WIPP LWA total TRU waste disposal volume capacity limit. Compliance with the total TRU waste WIPP LWA disposal capacity

limit is demonstrated by proven and audited procedures and processes implemented for the WIPP facility by the CBFO. The CBFO monitors and tracks the actual defense-related TRU waste volume emplaced at the WIPP facility to verify compliance with the WIPP LWA total TRU waste disposal capacity limit. CBFO will take action in accordance with the EPA and New Mexico regulations to verify compliance is maintained and the needs of the DOE Complex are met.

Text has been added to Section 2.1.1.2.5 of this Final SPDP EIS, stating that DOE has authorized WIPP to use FY 2050 as a planning assumption for a closure date for project management plans related to capital asset projects and other strategic planning initiatives (DOE 2015b). NNSA acknowledges that additional regulatory approval would be required to support WIPP facility operations through 2050.

In Section 4.2.3.3 of this SPDP EIS, NNSA discusses cumulative impacts of waste disposal at the WIPP facility. As discussed in Section 4.1.5.1 of this EIS, DOE's CBFO is responsible for the evaluation, if needed, of any impacts the SPDP inventory might have on the WIPP facility operations, as discussed in the WIPP SEIS (DOE 1997b) and subsequent supplemental analyses (SAs) listed in Appendix A of this EIS. No operational impacts are anticipated because TRU waste similar to the surplus plutonium oxide CH-TRU waste has previously been safely shipped and disposed of at the WIPP facility.

As discussed in Section 4.2.3.3 of this SPDP EIS, the Annual TRU Waste Inventory Report (ATWIR) serves as an annual estimate of the TRU waste inventory for potential disposal at the WIPP facility. The ATWIR estimates are also used for technical analyses, strategic planning, and NEPA analyses. CBFO would continue to coordinate with all sites on an annual basis to prepare a shipping plan to prioritize TRU waste shipments to WIPP. CBFO would determine the priority and planned throughput based on funding, compliance orders or settlement agreements, site needs, and generator site capability to provide shippable (compliant) TRU waste.

The WIPP LWA (P.L. 102-579 as amended by P.L. 104-201) and the WIPP Resource Conservation and Recovery Act Permit allow for disposal of defense TRU and TRU mixed waste in the WIPP facility as long as the waste stream is determined to be defense-related TRU waste by Acceptable Knowledge and Non-Destructive Assay. The waste stream must comply with the WIPP WAC and the WIPP Permit Waste Analysis Plan by passing a TRU waste certification audit, an inspection by EPA, and NMED approval of the final audit report. The WIPP facility has previously received and safely and compliantly disposed of diluted plutonium oxide as CH-TRU waste.

As discussed in Section 5.2.5 of this SPDP EIS, on March 31, 2020, the Permittees submitted a 10-Year Permit Renewal Application (DOE 2020b). On October 6, 2020, the NMED indicated that the 10-Year Permit Renewal Application was administratively complete and, therefore, the WIPP facility can continue to operate under the existing Hazardous Waste Facility Permit while NMED processes the renewal application (NMED 2020). NMED issued a draft permit for public comment in December 2022 (NMED 2022), and the public comment period ended April 19, 2023 (NMED 2023b). NMED issued the final WIPP renewal permit on October 4, 2023. The permit became effective on November 3, 2023 (NMED 2023a).

8.3 WIPP Facility Safety Record and General Safety Concerns

Comments: (10-9) (39-1-5) (39-2-2) (39-2-11) (39-2-13) (39-2-14) (39-2-18) (39-3-1) (56-12-3) (58-8-5) (58-15-2) (58-27-4) (58-30-8) (58-32-1) (58-38-3) (69-9) (71-17) (71-18) (71-20) (77-2-1) (77-2-3) (84-9)

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Commenters expressed concerns about operations at the WIPP facility, including safety concerns, past accidents, the Performance Assessment, possibility of criticality incidents, concerns about WIPP geology and seismic events, and the effect of the oil and gas industry on the WIPP facility.

Response: In Section 4.1.5 of this SPDP EIS, NNSA provides limited information about operating conditions, facilities, and activities conducted at the WIPP facility. The WIPP facility environmental and operating conditions, improvements, enhancements in performance, and conduct of operations were thoroughly discussed in the *Supplement Analysis for the Waste Isolation Pilot Plant Site-Wide Operations* (DOE 2016a) and current operating conditions are discussed in the *Supplement Analysis for the Waste Isolation Pilot Plant Site-Wide Operations* (DOE 2021c).

In Section 4.1.5.2 of this EIS, NNSA discusses the WIPP Performance Assessment and performance assessment calculations prepared in support of SPDP. The 34 MT will be included in a future performance assessment compliance calculation and will be submitted to EPA after NNSA has issued a ROD regarding the SPDP mission.

Criticality events at the WIPP facility are discussed and eliminated as a credible event in the WIPP SEIS (DOE 1997b). In addition, the Sandia National Laboratories Surplus Plutonium Disposition analysis (SNL 2018) features, events, and processes reassessment confirmed that nuclear criticality did not need to be accounted for in Performance Assessment calculations.

WIPP geology and seismic events are addressed in the *Final Environmental Impact Statement Waste Isolation Pilot Plant* (DOE 1980) and the *WIPP SEIS* (DOE 1997b) and updated in subsequent supplement analyses (Sas) listed in Appendix A of this EIS.

Location of the WIPP site to avoid existing oil and gas activities is addressed in the *Final Supplemental Environmental Impact Statement Waste Isolation Pilot Plant* (DOE 1980). Institutional controls to reduce the likelihood of future inadvertent human intrusion to the WIPP repository after final facility closure are described in the *Passive Institutional Controls Implementation Plan* (DOE 2004) and the *Compliance Certification Application for the Waste Isolation Pilot Plant* (DOE 1996a).

These comments did not result in a modification in the Final EIS.

8.4 Disposal of Other TRU Waste at the WIPP Facility

Comments: (39-3-2) (56-9-5) (69-8) (90-6)

Commenters expressed concerns that disposal of surplus plutonium at the WIPP facility will compete with demands from other programs disposing of TRU waste at WIPP, including TRU waste from LANL. There are also concerns that DOE may want to dispose of other types of waste at the WIPP facility, such as spent fuel.

Response: As indicated in the revised text for Section 4.1.5.1 of this SPDP EIS, the 34 MT of surplus plutonium proposed for disposal at the WIPP facility via the dilute and dispose strategy is less than 2 percent of WIPP's approved capacity under the WIPP LWA (SRNS 2023). In Section 4.2.3.3 of this SPDP EIS, NNSA discusses cumulative impacts of waste disposal at the WIPP facility. As discussed in Section 4.1.5.1 of this SPDP EIS, DOE's CBFO is responsible for the evaluation, if needed, of any impacts the SPDP inventory might have on the WIPP facility operations, as discussed in the WIPP SEIS (DOE 1997b) and subsequent Sas listed in Appendix A of this EIS. As discussed in Section 4.2.3.3 of this SPDP EIS, the

ATWIR serves as an annual estimate of the TRU waste inventory for potential disposal at the WIPP facility. However, the waste streams listed in the ATWIR under the category of WIPP-bound must pass a certification audit before the TRU waste streams can be shipped and disposed of at the WIPP facility. The ATWIR estimates are also used for technical analyses, strategic planning, and NEPA analyses. CBFO would continue to coordinate with sites (e.g., LANL) on an annual or more frequent basis to prepare a shipping plan to prioritize TRU waste shipments to the WIPP facility. CBFO would determine the priority and planned throughput based on funding, compliance orders or settlement agreements, national security priorities, site needs, and site capability to provide shippable (compliant) TRU waste.

The WIPP LWA (P.L. 102-579 as amended by P.L. 104-201) and the WIPP Resource Conservation and Recovery Act Permit allow for disposal of defense TRU and TRU mixed waste in the WIPP facility as long as the waste stream is determined to be defense-related TRU waste by Acceptable Knowledge and Non-Destructive Assay. The WIPP LWA (P.L. 102-579 as amended by P.L. 104-201) specifically excludes disposal of spent fuel at WIPP. In this SPDP EIS, NNSA addresses the impacts of disposal of TRU waste at the WIPP facility. NNSA does not address the impacts of disposal of other waste types because that is not part of the proposed action of this EIS.

8.5 Need to Identify or Develop Other Disposal Sites

Comments: (54-9) (55-9-4) (56-4-3) (58-3-2) (77-2-5) (78-7) (80-7) (88-19) (90-5)

Commenters stated that one or more additional repositories should be built, including in states other than New Mexico.

Response: Section 2.2 and associated tables of this SPDP EIS discuss alternatives that were considered but dismissed from detailed study, including disposal of plutonium at a secondary repository similar to the WIPP facility. These comments did not result in a modification in the Final EIS.

8.6 Support for Disposal at the WIPP Facility

Comments: (9-5) (13-1) (13-4) (13-5) (13-9) (16-4) (17-1) (17-3) (17-4) (25-1) (25-2) (26-2) (29-2) (31-2) (42-1) (55-1-3) (55-2-1) (55-3-1) (55-3-2) (55-4-2) (55-6-1) (55-7-2) (55-8-3) (55-11-2) (55-12-1) (58-24-1) (66-1)

Commenters expressed general support for the WIPP facility, including use of the WIPP facility for disposal of CH-TRU waste from the SPDP.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

8.7 Opposition to Disposal at the WIPP Facility

Comments: (18-1) (21-1) (47-1) (52-1) (55-9-7) (55-10-1) (55-10-3) (58-32-3) (77-2-4)

Commenters expressed general opposition to the WIPP facility, including use of the WIPP facility for disposal of surplus plutonium.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

9.0 NEPA Process

9.1 Request for Involvement with Other Government Agencies

Comments: (10-13) (22-6) (56-3-4) (68-1-7) (73-3)

Commenters requested additional interactions between DOE and other government agencies. Specifically, one commenter requested that DOE establish a national approach to nuclear waste disposal based on costs and benefits to communities. Another commenter stated that the State of New Mexico Office of Natural Resources Trustees should have been consulted. The State of South Carolina Governor's Office requested that DOE/NNSA initiate regular meetings with the State of South Carolina Governor's Office.

Response: NNSA transmitted the Draft SPDP EIS to State and Federal Agencies for review, including the State of South Carolina Governor's Office, New Mexico Governor's Office, Los Alamos and Santa Fe County Offices, and the City Offices of Los Alamos, Santa Fe, Carlsbad, and Hobbs. NNSA acknowledges that the New Mexico Office of Natural Resources Trustees was inadvertently omitted from initial distribution; however, their comments have been considered in the Final EIS.

Comments were received from State and Federal Agencies as reflected in Table 1 of Volume 3.

DOE has addressed the national approach to nuclear waste management through the "Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste" (DOE 1997a) and subsequent supplemental analyses.

NNSA has committed to periodic briefings on progress toward meeting the removal commitment to the Governor and the Attorney General of South Carolina.

These comments did not result in a modification in the Final EIS.

9.2 Tribal Consultation

Comments: (58-7-7) (68-1-8)

Commenters stated that inadequate tribal consultation was performed, especially with the New Mexico pueblos. Commenters requested direct consultation with each Tribal Nation and community along the proposed transportation routes.

Response: Consultation with Native American Tribes that have ancestral/historic ties to DOE sites (i.e., LANL, SRS) is required per Section 106 of the National Historic Preservation Act, other laws, Executive Orders, and DOE Policy, as described in Sections 5.4.1 and 5.4.2 of this SPDP EIS. Tribes and pueblos that have such ties are also identified in these sections. Consultations regarding transportation were completed in the *Final Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement* (DOE 2019). Consultation is an ongoing process that continues with all interested parties.

NNSA held virtual meetings for Tribal Nations on December 6, 2022 and January 31, 2023 to share information about the SPDP and answer questions about the Draft SPDP EIS. Prior to these meetings, NNSA sent letters directly to Tribal Nations with ties to the land on or in the vicinity of the SRS and LANL sites. These letters summarized the dilute and dispose strategy, the alternatives, and activities specific at LANL and SRS. The letters also provided an invitation for government-to-government consultation.

These comments did not result in a modification in the Final EIS.

9.3 Public Involvement

Comments: (5-1) (10-17) (12-1) (18-2) (23-1) (47-11) (52-5) (54-2) (54-12) (55-9-6) (56-3-2) (56-3-7) (56-7-7) (56-7-8) (56-8-1) (57-2-3) (58-1-2) (58-11-4) (58-30-1) (58-30-3) (63-1) (65-15) (71-4) (71-12) (80-10) (82-7)

Commenters recommended early engagement of stakeholders, and expressed concern that NNSA did not adequately communicate the plan or process for the SPDP to the potentially affected public. Commenters requested additional locations for public hearings, including the Village of Loving and Santa Fe, New Mexico, as well as in communities affected by transportation. Commenters suggested that NNSA hold question and answer sessions in addition to the public hearings, and one commenter said that they were unable to access the Zoom hearing. Commenters expressed a desire to vote on the proposed action. One commenter noted there were Spanish translations of the meeting materials available.

Response: During scoping for this EIS, commenters requested that public meetings be held in-person in the affected localities. Subsequently, during the public comment period for the Draft SPDP EIS, in-person public meetings were held in North Augusta, South Carolina; Carlsbad, New Mexico; and Los Alamos, New Mexico. NNSA deemed these meeting locations sufficient as they were closest to the sites under consideration in the alternative proposed in the EIS. The public meetings began with a poster session, which provided the public with an opportunity to learn about the EIS and ask questions. The remainder of the meetings consisted of a presentation by NNSA and an opportunity for members of the public to provide oral and written comments. NNSA also held a virtual public meeting using the Zoom webinar platform on January 30, 2023, which was accessible via telephone and computer. Information about how to access the Zoom meeting was posted to NNSA's online NEPA Reading Room and listed in newspaper articles announcing the public meetings. The virtual meeting was only accessible during the scheduled hours; following that timeframe, the meeting information expired.

NNSA provided notice of the meetings in accordance with established guidelines and requirements set forth in the NEPA regulations. While the opportunity to vote on the proposed action is not a requirement under NEPA, NNSA did comply with the NEPA requirement to provide the public with opportunities to provide comments. NNSA provided the public with an extended public comment period of 90 days (an additional 45 days above what is required) and public meetings in several settings. Due to the presence of Spanish-speaking communities around the SPDP areas, NNSA provided public meeting materials in both Spanish and English.

These comments did not result in a modification in the Final EIS.

9.4 Public Comment Period

Comments: (8-1) (57-4-2) (57-11-1) (57-12-2)

Commenters requested an extension of the comment period on the Draft SPDP EIS.

Response: The Notice of Availability for the Draft SPDP EIS was published on December 16, 2022 (87 FR 77096), announcing a 60-day public comment period that was scheduled to end on February 14, 2023. On February 10, 2023, in response to public comments requesting an extension, NNSA extended the comment period on the Draft SPDP EIS by an additional 30 days, until March 16, 2023 (88 FR 8843).

These comments did not result in a modification in the Final EIS.

9.5 Consideration of Comments

Comments: (55-8-2) (56-4-4) (58-4-6) (58-22-1) (58-37-1) (59-4) (60-1) (77-1-1) (82-11)

Commenters requested clarification of the consideration and weighting of public comments submitted on the Draft SPDP EIS. Specifically, commenters requested confirmation that all comments will be sufficiently addressed and incorporated into the Final EIS. One commenter requested a copy of the scoping comments instead of the comment summaries that were published with the Draft SPDP EIS. One commenter asked if it is possible to see all public comments submitted prior to the close of the public comment period. Another commenter requested that their comment be considered although it was submitted after the close of the public comment period.

Response: All comments are given equal weight and are considered when preparing the Final EIS, including comments received after the close of the comment period. NNSA considered comments received after the close of the public comment period, as practicable.

While the scoping comments were summarized rather than being presented individually in the Draft SPDP EIS, the comments received during the public comment period on the Draft SPDP EIS are published in the Final EIS in their entirety in Attachment B of Volume 3.

9.6 Request for Additional NEPA Analyses

Comments: (33-5) (49-6) (49-10) (49-15) (49-17) (58-13-3) (58-14-4) (64-1) (65-1) (65-3) (65-12) (68-1-1) (71-1) (78-4) (78-6) (79-1-4) (79-1-5) (81-2) (86-5) (88-6) (88-8) (88-10) (88-17) (88-18) (89-1) (89-2) (89-6) (89-8) (90-9)

Commenters asked if DOE/NNSA plans to conduct additional future NEPA analyses to consider additional or alternative means of disposition. One commenter recommended conducting periodic evaluations to consider new, emerging technologies that could expedite the disposition process. One commenter stated that evaluation of only two alternatives was inadequate, and the EIS should be revised with each of the four sub-alternatives evaluated as a separate stand-alone alternative, rather than as sub-alternatives to the Preferred Alternative. Several commenters requested that DOE/NNSA withdraw the Draft SPDP EIS and update the site-wide EIS (SWEIS) for Pantex, WIPP, LANL, and SRS so that the analysis is completed with up-to-date information to include relevant SPDP and pit production mission details. A commenter stated that this updated information is crucial to not limit public input.

Several commenters specifically requested additional analyses related to proposed transportation routes and risk to communities along those routes. Another commenter observed that the level of analysis for water resources in the Draft SPDP EIS varied by site and the analyses should be comparable.

Response: If in the future additional analyses are pursued, the public will be notified in accordance with NEPA requirements. Table 1-1, "Overview of *National Environmental Policy Act* Reviews and Decisions Related to Surplus Plutonium Disposition," identifies the past NEPA reviews and decisions that led to the Preferred Alternative and sub-alternatives presented in this SPDP EIS. The four sites addressed in this SPDP EIS have associated NEPA documentation supporting ongoing activities and operations. Per the DOE NEPA implementing regulations (10 CFR Part 1021), site-wide EISs would be prepared as a matter of policy; they are not a requirement. The evaluation of potential transportation impacts was evaluated along the transportation route for the Preferred and No Action Alternatives, as further described in Section 4.1.6 of the SPDP EIS. This evaluation considered the potential human health impacts for both transportation workers and the general population along the route, including people sharing the route, at rest areas, and at other stops along the route. The evaluation of potential impacts on water resources (Sections 4.1.2.3 and 4.1.3.3) used the best available information, and conservative assumptions were made to account for uncertainties. As discussed in Section 4.1.1 and Section 4.1.5 of this SPDP EIS, the activities that would occur at Pantex and the WIPP facility for both the Preferred and No Action Alternatives are within the bounds of activities analyzed in previous NEPA documents and therefore are not reanalyzed in this SPDP EIS.

NNSA continuously re-examines its program and options for optimizing the completion of the mission. If NNSA should decide to pursue a new alternative, or a major change to existing programs, NNSA would prepare project management documents required by DOE Order 413.3, Program and Project Management for Acquisition of Capital Assets, including the appropriate NEPA review.

These comments did not result in a modification in the Final EIS.

9.7 Need for a New Programmatic EIS

Comments: (10-14) (49-7) (51-4) (54-1) (54-3) (56-3-5) (57-2-2) (58-1-4) (58-11-3) (58-14-3) (58-19-4) (58-23-2) (58-26-2) (58-31-3) (58-33-2) (58-34-1) (58-36-2) (71-7) (71-10) (77-1-19) (79-1-6) (79-1-17) (80-2) (80-11)

Commenters stated that a Programmatic EIS (PEIS) should be developed to consider the potential impacts across the multiple states, sites, and communities involved in the program. Reasons cited for needing a PEIS included the following:

- the proposed action would require multiple sites and transportation across multiple states
- concerns about segmenting portions of the disposition program
- current plans for SPDP should be in one place
- surplus plutonium from other missions will eventually need to be dispositioned, and/or
- the 2020 NASEM study recommended that a PEIS be prepared.

One commenter indicated that the PEIS should address every community where there is potential for an accident to occur during transportation or where there is potential for accidental releases into the

environment. The commenter also indicated the PEIS should address exposures to workers who are not protected by current radiation exposure regulations.

Response: In 1996, NNSA prepared a PEIS (DOE 1996b) followed by several NEPA reviews that tiered from the 1996 PEIS to evaluate alternative means of assuring that surplus plutonium can never again be readily used in a nuclear weapon. In the 2015 SPD SEIS (DOE 2015a), NNSA analyzed the impacts of the WIPP Alternative (also referred to as “plutonium downblending” or “dilute and dispose”). The 2015 SPD SEIS is tiered from the 1996 PEIS (DOE 1996b). Thus, the analyses found in the PEIS, and subsequent tiered documents, are incorporated by reference in this SPDP EIS, which concentrates on issues specific to the dilute and dispose strategy. A review of the 1996 PEIS was conducted, along with the related analyses, and NNSA has determined that the analysis therein remains applicable. Based on CEQ and DOE regulations related to PEISs, tiering an EIS is an appropriate NEPA approach to undertake for the 34 MT of surplus plutonium described in the purpose and need. Further, both an EIS and a PEIS consider the same resources and require the same level of public involvement.

It should be noted that there is no regulatory difference between the EIS process and the PEIS process. The resources considered in the assessment of impacts and the requirements for public involvement are the same. This EIS incorporates prior analyses by reference where appropriate, and appropriately tiers from the “Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement” (DOE 1996b). The use of tiering is not the same as segmenting. As described in 10 CFR 1021.410(b)(3), “segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action.” Instead, the scope of an action must include the consideration of connected and cumulative actions. Connected actions are those that are closely related and should be discussed in the same EIS. Cumulative actions are those that have cumulatively significant effects and should be discussed in the same EIS. Similar actions are those that have similarities that provide a basis for evaluating their environmental consequences together. Section 4.2 of the SPDP EIS addresses cumulative impacts.

This SPDP EIS is part of an overall NNSA NEPA strategy for surplus plutonium disposition, as discussed in Section 1 and Appendix A of the EIS. In this SPDP EIS, NNSA focuses on specific options for disposition of the 34 MT of surplus plutonium that was previously intended for use in fabricating MOX fuel. This SPDP EIS encompasses environmental analysis and impacts at all sites, transportation, and activities involved in the 34 MT dilute and dispose strategy. Response 2.2 provides additional information related to the focus of this SPDP EIS on 34 MT rather than on all plutonium declared surplus by the United States.

DOE has a mature program in place to train, support, and notify states and communities along waste transportation routes. DOE will use these established processes and relationships and, if necessary, enhance awareness to address transportation of SPDP CH-TRU waste as the program develops and more specific plans for shipping become available.

10.0 Land Use and Visual Resources

10.1 Land Use – New Construction

Comments: (11-7)

A commenter expressed concern that the proposed new construction may expand the footprint of LANL.

Response: The proposed construction on undisturbed land is small, as discussed in Section 4.1.2.1 of this SPDP EIS and shown in aerial photos in Section 2.1.1.2.2. This comment did not result in a modification in the Final EIS.

10.2 Land Use – Impact Minimization

Comments: (65-9)

A commenter wanted confirmation that proposed construction areas and footprints were chosen to minimize environmental impacts.

Response: Environmental impacts from construction areas are minimized through the proposed site planning and selection process at LANL (LANL 2022b) and SRS (SRNS 2022a; SRNS 2000). This statement has been added to Sections 4.1.2.1 and 4.1.3.1 of this Final SPDP EIS, respectively, to provide clarification.

10.3 Land Use – Revegetation

Comments: (65-5)

A commenter requested additional details about revegetation strategies and revegetation monitoring plans for areas with proposed construction.

Response: Facility-specific measures, including revegetation, to be taken at either LANL or SRS under the Storm Water Pollution Prevention Plan would be prepared for each construction site as stated in Sections 4.1.2.2 and 4.1.3.2.1, respectively, in this Final SPDP EIS. A brief discussion of the LANL stormwater management best practices manual was added into Section 4.1.2.2.

11.0 Geology and Soils

11.1 Geology & Soils – Soil Quality Monitoring

Comments: (68-1-11)

A commenter requested additional information about soil contamination from past operations at LANL and the potential risk of contamination from spills and releases from the proposed activities.

Response: Section 3.2.2.2 of this Final SPDP EIS has been revised to include information describing soil quality monitoring at LANL. Section 3.3.2.2 has been revised to include similar information about SRS soil quality monitoring.

SPDP is not proposing construction on any site that is under evaluation for site remediation. For the proposed activities, all operations with dispersible plutonium occur within gloveboxes; therefore, no spills or waterborne releases could result in soil contamination are anticipated. Consequences of potential facility related accidents at LANL are provided in Section 4.1.2.7.2 and Appendix D of this SPDP EIS.

11.2 Geology & Soils – Seismic Network Adequacy at LANL

Comments: (58-19-1)

A commenter questioned the adequacy of seismic monitoring at LANL based on a recent paper describing the history and current status of the Los Alamos Seismic Network.

Response: The paper referred to by the commenter (House and Roberts 2020) describes how the number of seismic stations at LANL has varied over the years due to funding limitations. From more than 20 stations initially, the network was reduced to 7 stations between 1985 and 1999 before being expanded to the 17 stations described in the referenced paper. The number of stations primarily affects the sensitivity of the network to detect seismic activity of low magnitude. The network, described in House and Roberts 2020, is estimated to be able to detect 100 percent of seismic events with magnitudes larger than 0.6. The paper referred to by the commenter describes a continuous record of seismic monitoring data from 1973 to the current day. The paper also describes recent upgrades to the network's sensor and communication equipment to improve the recording of events and facilitate the exchange of data with other organizations. This comment did not result in a modification in the Final EIS.

11.3 Geology & Soils – Seismic Activity Along Transportation Routes

Comments: (58-15-1)

The commenter asked about the assessment of seismic activity along the transportation routes.

Response: Potential seismic hazards associated with the proposed transportation activities were not evaluated as part of the SPDP EIS. Transportation impacts, including the impacts of transportation accidents, were evaluated in Section 4.1.6 of this SPDP EIS. This comment did not result in a modification in the Final EIS.

12.0 Water Resources

12.1 Water Resources – Water Quality Impacts

Comments: (68-1-12)

A commenter requested analysis of the risk of potential releases and spills and the impacts on water resources at LANL.

Response: In Section 3.2.3 of the SPDP EIS, NNSA describes the potentially affected water resources, including the effects of past and current operations of LANL on water quality. This includes a review of recent exceedances of discharge permit limits. Section 4.1.2.3 indicates that water use during SPDP activities is by project personnel for potable and sanitary purposes. For the proposed activities, all operations with dispersible plutonium occur within gloveboxes; therefore, no releases that could result in plutonium contamination in water are anticipated during routine operations. Impacts from accidents at the LANL facility are addressed in Section 4.1.2.7.2 and Appendix D.

The impacts of the proposed program on the potentially affected water resources were evaluated in EIS Section 4.1.2.3 by comparing the volume and quality of program discharges to the volume and quality of the existing discharges and receiving water bodies. Because the program discharges would be regulated under existing permits and would constitute a small fraction of the volume of the existing discharges and receiving water bodies, the impacts were determined to be minimal. This comment did not result in a modification in the Final EIS.

12.2 Water Resources – State and Federal Water Quality Permits

Comments: (65-7) (65-13)

A commenter stated that the EIS should consider the requirements for State and Federal water quality permits.

Response: Applicable water quality permits are described in Sections 3.2.3, 3.3.3, and 5.1 of the SPDP EIS. Program activities that may affect water quality are described in EIS Sections 4.1.2.3 and 4.1.3.3; discharges from program activities would be covered under existing permits. No discharges of dredged or fill materials to waters of the United States that would require a Clean Water Act Section 404 permit are planned as part of the proposed program. Sections 4.1.2.3 and 4.1.3.3 of this Final SPDP EIS have been revised to include a statement that no discharge of dredged or fill materials to waters of the United States are planned.

12.3 Water Resources – Conservative Assumptions

Comments: (65-4)

A commenter requested that conservative assumptions be considered for evaluation of water resources.

Response: Evaluation of potential impacts on water resources used the best available information, and conservative assumptions were made to account for uncertainties. As an example of conservative assumptions, minimum receiving water body flows and maximum program water use and discharges were assumed. These assumptions would maximize potential water resources impacts. This comment did not result in a modification in the Final EIS.

12.4 Water Resources – Plutonium Monitoring

Comments: (65-2) (65-6) (65-11)

A commenter requested that information be included in the EIS regarding plutonium interaction with sediments/geology and monitoring at LANL for the presence of plutonium in groundwater.

Response: As described in Section 2.1.1.2 of the SPDP EIS, processing of plutonium will occur within gloveboxes. In addition, the primary use of water during operations is for potable and sanitary uses by staff (see EIS Section 4.1.2.3). Therefore, no releases of plutonium to surface water or groundwater are anticipated for the proposed program. Plutonium has negligible solubility in water under typical environmental conditions but could be transported as an oxide precipitated on or adsorbed to soil particles. LANL evaluates plutonium in soil samples collected downwind from major facilities and operations as part of its soil and vegetation monitoring network, as described in LANL's annual site

environmental reports. Some samples collected in 2021 had plutonium-239/plutonium-240 concentrations above the background level, but all samples were well below the no-effect ecological screening level. Similar results were found for samples collected in Technical Area (TA)-55 north of Plutonium Facility (PF)-4 during 2022. LANL includes plutonium isotope analyses in selected groundwater monitoring. This has yielded mostly non-detects and no exceedances of screening levels or water quality standards. Plutonium was detected at one alluvial well (MCO-5 in Mortandad Canyon, TA-05) in 2022 at an activity of 0.123 pCi/L, well below derived concentration limits (400 pCi/L for plutonium-239). Sections 3.2.2.2 and 3.2.3.2 of this Final SPDP EIS have been revised to include this additional information about plutonium monitoring at LANL as part of the baseline description of the potentially affected environment.

12.5 Water Resource – Concerns

Comments: (10-3)

A commenter stated that Rio Grande River water quality at the location of the Buckman Direct Diversion, which is a source of drinking water for Santa Fe County, is affected by LANL operations in Los Alamos Canyon and its tributaries.

Response: As described in Section 4.1.2.3 of the SPDP EIS, there would be no direct release of contaminated, industrial effluents to surface water or groundwater during construction or operations of the proposed activities. In addition, activities would affect only minor areas of Pajarito and Mortandad Canyons and treated sanitary wastewater would be discharged to Sandia Canyon. As a result, activities would not affect runoff in Los Alamos Canyon and would not contribute to any discharges from Los Alamos Canyon that might affect water quality at the Buckman Direct Diversion. Other LANL activities are outside of the scope of this analysis. Additional information is available from LANL’s annual site environmental reports regarding programs at LANL. This comment did not result in a modification in the Final EIS.

13.0 Meteorology and Air Quality

13.1 Meteorology and Air Quality – Climate Change

Comments: (65-16)

A commenter recommended including a more in-depth discussion of potential climate change impacts, indirect and cumulative effects associated with severe weather events, and preventive measures that mitigate potential impacts. The commenter stated that NNSA should consider ongoing and long-term risks of climate change and risk of damage to infrastructure due to climate change.

Response: This Final SPDP EIS has been revised to include further details about the future risks of climate change to the program sites at LANL and SRS, as well as adaptation and resilience measures that would minimize these risks. In addition, the Final SPDP EIS responds to aspects of the CEQ January 2023 interim guidance (88 FR 1196) on NEPA, greenhouse gases, and climate change. Changes made in Section 4.2.4 of this Final SPDP EIS include the following:

- Climate change impacts that could affect LANL and SRS and surrounding locations (e.g., drought, wildfires, flooding) were added and include mitigation measures that have been taken at the site and environmental justice communities.
- Text regarding climate change adaptation and resilience planning at SRS and LANL was added. Many of the measures include those identified in the DOE 2021 *Climate Adaptation and Resilience Plan* (DOE 2021a), such as reducing energy and water needs for site operations, increasing awareness in neighboring communities about cost-effective, energy resilient energy solutions, and working to create economic opportunities for surrounding communities.
- Text regarding the approach to the calculation of indirect emissions was added.

14.0 Ecological Resources

14.1 Ecological Resources – Effects on Wetlands

Comments: (65-8)

One commenter expressed concern about the effects of the proposed action on wetlands and whether the least environmentally damaging practicable alternative was selected.

Response: The NNSA reviewed potential effects on wetlands and streams at the LANL site and concluded that the Preferred Alternative would have minimal potential wetland impacts, if any, and thus meets the requirements of the least environmentally damaging practicable alternative. Text was added for clarification to Section 4.1.2.6.1 of this Final SPDP EIS. There are no wetlands located where the proposed action would take place at SRS; thus, no changes were made in that section.

14.2 Ecological Resources – Wetland and Stream Mitigation

Comments: (65-10)

One commenter expressed concern about compensatory mitigation for the effects of the proposed action on wetlands and streams.

Response: The stormwater controls described in Section 3.2.6.3 of the SPDP EIS serve to minimize potential impacts on the wetlands and streams on the LANL site that could be affected by the program. No noticeable loss of wetland area or function is anticipated at LANL, and no wetlands or streams are located where the proposed action would take place at SRS. This comment did not result in a modification in the Final EIS.

14.3 Ecological Resources – Federally Threatened and Endangered Species

Comments: (68-1-13)

One commenter expressed concern about federally threatened and endangered species and potential impacts.

Response: In Section 4.1.2.6.1 of the SPDP EIS, NNSA states that the analyses for the Mexican spotted owl and the Jemez Mountains salamander are general and provisional and would be resolved definitively during future Endangered Species Act (ESA) Section 7 consultation if a decision is made to implement this alternative. NNSA recognizes the need for an ESA Section 7 consultation. Text has been included in Section 4.1.2.6.1 to discuss potential impacts on federally listed species, State-listed species, and other sensitive species. This comment did not result in a modification in the Final EIS.

15.0 Human Health – Radiological

15.1 Human Health – Radiological – Basis for Radiation Protection and Implementation

Comments: (39-3-15) (39-3-16) (39-3-17) (39-3-18) (39-3-19) (39-3-22) (39-4-7)

One commenter criticized DOE’s methodology to assessing radiation dose to workers and the public. This included the basis for scientific information used in determining the dose and risk from exposure to ionizing radiation, radiation dose standards, and DOE’s implementation of radiation protection programs.

Response: DOE’s approach to calculating radiation dose to workers and the public is based on the recommendations of the International Commission on Radiological Protection (ICRP). The ICRP considers the entire body of scientific literature and research related to the effects of ionizing radiation. While the commenter provides a few references that seem to show the ICRP recommendations are non-conservative, there are an equally large number of proponents and a body of literature that seem to provide evidence for radiation hormesis (beneficial effects of radiation) or a threshold for any effects of radiation, including cancer. The ICRP carefully considers all of the literature, and new literature being added to the scientific body of evidence, when making its recommendations.

DOE currently relies on the recommendations and system of radiation protection found in ICRP Publication 60 (ICRP 1991). ICRP has updated its recommendations in ICRP Publication 103 (Valentin 2007), but states that the technical basis and recommendations in ICRP 60 are still sound. ICRP recommendations are consistent with those of the National Council on Radiation Protection and Measurements. The National Council on Radiation Protection, in its Report No. 160, *Ionizing Radiation Exposure of the Population of the United States* (NCRP 2009), notes that background radiation contributes fully half of the total radiation exposure to the population, followed closely by medical uses of ionizing radiation.

DOE’s approach to radiation protection relies heavily on applying the As Low As Reasonably Achievable (ALARA) principle—keeping radiation doses ALARA by using time, distance, shielding and engineered and administrative controls. This includes administrative limits that are well below the legal dose limits. DOE reports occupational exposure each year, most recently for 2021: *Occupational Radiation Exposure Report for CY 2021* (DOE 2023a). This report shows that over the last 5 years of reporting, 2017–2021, only two workers received more than two rem of occupational dose out of 65,000 to 80,000 workers were monitored each year for 2017-2021. This translates to 364,000 worker-years. The average dose in 2021 was 48 millirem. The estimated dose to members of the public from SPDP activities would be very low, fractions of a millirem per year, and no effect on any member of the public is expected.

By adopting the linear non-threshold model, i.e., any exposure, no matter how small, carries some risk, DOE is being conservative in presenting the possible health effects of exposure to ionizing radiation (ICRP 1991; Valentin 2007). Other types of health effects mentioned by the commenter are much less likely to occur and typically have a much higher dose threshold before any effect is observed, based on the current scientific knowledge.

These comments did not result in a modification in the Final EIS.

15.2 Human Health – Radiological – Environmental Monitoring

Comments: (39-4-8)

One commenter expressed concern about the monitoring of public water supplies, and DOE and the affected states' commitment to adequately monitor, detect, and report the presence of anthropogenic radionuclides through environmental monitoring programs.

Response: Both LANL and SRS have extensive environmental monitoring programs, the results of which are documented in their Annual Site Environmental Reports (LANL 2022a; SRNS 2022b). As documented in EIS Sections 4.1.2.3 for LANL and 4.1.3.3 for SRS, there would be no direct release of contaminated, industrial effluents to surface water or groundwater during construction or operations. There would be no effect on public water supplies. The States of New Mexico and South Carolina conduct independent environmental monitoring programs that provide oversight of DOE's activities and effect on the environment. This comment did not result in a modification in the Final EIS.

15.3 Human Health – Radiological – County Cancer Statistics

Comments: (39-4-4) (56-7-3) (61-10)

Commenters expressed concern regarding cancer incident rate data presented in the Draft SPDP EIS.

Response: Table 3-8 of this Final SPDP EIS has been revised to present age-adjusted cancer mortality and incidence rates per 100,000 persons for all cancers and for the organ most of concern for exposure to TRU radionuclides, the lung and bronchus. The lung and bronchus also have the highest mortality rate. The age-adjusted rates allow New Mexico, its counties, and the United States to be compared on a consistent basis. In the vicinity of LANL, only Sandoval County has a thyroid cancer age-adjusted incidence rate higher than that of New Mexico as a whole (18.2 compared to 15.5). Los Alamos County has the third highest cancer incidence rate in New Mexico, behind Torrance and De Baca Counties. Los Alamos County all cancer incidence and mortality rates are now presented in Table 3-8 (NCI 2022). Readers can readily find state and county cancer mortality and incidence rates at this link – <https://statecancerprofiles.cancer.gov/index.html>.

15.4 Human Health – Radiological – Other Radiation Health Effects

Comments: (39-3-21) (68-1-14) (68-1-15)

Commenters stated that the occurrence of other health effects from exposure to radiation, such as cancer morbidity and other radiation-caused diseases, should be considered in addition to risk of latent cancer risk and fatalities.

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Response: The SPDP EIS provides estimates of the radiation dose, in rem, that could be received by workers and members of the public from surplus plutonium disposition activities. The radiation doses that could be received by members of the public are very low, a fraction of a millirem per year, well below the dose limit of 100 mrem per year (DOE Order 458.1 Chg 4 2020). No health effects of any kind, including cancer, are expected to occur in any members of the public from this very low exposure over the duration of the program. Radiation doses to workers are kept ALARA and well below the dose limits. For both the public and workers the risk of cancer is estimated to occur based on the linear non-threshold model. Up to two latent cancer fatalities (LCFs) are estimated to occur in the workforce throughout the duration of the program.

There is little scientific evidence of the occurrence of other health effects at the low doses and dose rates estimated to occur from SPDP activities. In ICRP Publication 103 (Valentin 2007) the potential importance of the observations of noncancer diseases was recognized but it was judged that the current data do not allow for their inclusion in the estimation of detriment following low radiation doses, less than about 100 mSv (10 rem). This agrees with the conclusion of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR; 2008), which found little evidence of any excess risk below 100 rad.

Tables 3-8 and 3-25 of this Final SPDP EIS have been revised to include the baseline mortality and incidence rates of cancer around LANL and SRS. Based on a comparison of these mortality and incidence rates, the number of non-fatal cancers that could occur around LANL and SRS are factors of 2–3 times higher than the number of latent fatal cancers, resulting in an estimate of two to six total cancers throughout the duration of the program.

15.5 Human Health – Radiological – Use of Effective Dose

Comments: (39-3-23)

A comment was made that organ doses and risk should be provided as well as effective doses.

Response: The internationally accepted concept of “effective dose” (DOE terminology is “total effective dose”) is used in this SPDP EIS to consider dose to all tissues and organs. Effective dose accounts for the effect of different types of radiation emitted by different radionuclides through “radiation weighting factors” and the risk to individual tissues and organs through the use of “tissue weighting factors.” The dose and risk to all tissues is included in effective dose. The dose (and risk) to individual tissues can be determined by multiplying the total effective dose by the appropriate tissue weighting factor to determine the “equivalent dose” for that tissue. Tissue weighting factors can be found in 10 CFR 835.2 “Definitions”. Only Sandoval County has a thyroid cancer incidence rate somewhat above that of New Mexico as a whole (18.2 compared to 15.5). Other counties around LANL have lower incidence rates than that of New Mexico as a whole (NCI 2022). This comment did not result in a modification in the Final EIS.

15.6 Human Health – Radiological – Gender and Age Differences in Radiation Dose Estimates

Comments: (39-3-14)

A commenter noted the higher radiation risk to females and children and questioned whether radiation dose limits were adequately reflected for these groups.

Response: The overall cancer mortality risk for women is about 37 percent higher than for men based on information in ICRP Publication 103 (Valentin 2007). For radiation protection purposes, the risk to men and women is averaged together and considered adequately protective when establishing radiation dose limits and standards. The risk coefficients for internal and external radiation exposure in the EPA's Federal Guidance Report 13, *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* (EPA 1999), include adjustments for current age and gender distributions in the United States. A newer Federal Guidance Report 15, *External Exposure to Radionuclides in Air, Water, and Soil* (EPA 2019), includes only external radiation dose coefficients but for specific age groups from newborn to adult there are no gender differences. Dose coefficients for younger age groups are nominally higher than those for adults. For internal dose, these higher dose coefficients are offset by lower ingestion and inhalation rates for younger age groups. There is a separate radiation dose limit for an unborn fetus, and DOE radiation protection programs have specific program elements to limit radiation dose to expectant mothers. In the SPDP EIS the estimates of dose and risk to members of the public are very low, and risk to any of the more sensitive age groups is considered to also be very low and adequately addressed. This comment did not result in a modification in the Final EIS.

15.7 Human Health – Radiological – Solubility Classes Used in Estimating Internal Radiation Dose

Comments: (39-3-11) (39-3-13)

One commenter questioned the solubility classes used to estimate inhalation dose from plutonium and americium for workers.

Response: Radiation dose from activities associated with surplus plutonium disposition operations is dominated by external dose, not internal dose. As indicated in the text box in Section 4.1.2.7 of the SPDP EIS, "direct exposure from handling plutonium materials within a facility would be the chief source of occupational exposure for onsite workers (primarily from gamma radiation emitted by americium-241)." Workers receive the highest exposures during normal operations from surplus plutonium inside gloveboxes. Any internal dose received by workers from inhalation due to inadvertent glovebox releases, would be small compared to external dose and was not accounted for in the SPDP EIS.

However, internal doses including inhalation are considered for accident calculations. The accident calculations discussed in Sections 4.1.2.7.2 and 4.1.3.7.2 as well as in Appendix D used the most conservative solubility class (i.e., that class tending to result in the highest dose), to avoid underestimating the potential impact from internal exposure.

These comments did not result in a modification in the Final EIS.

15.8 Human Health – Radiological – Americium-241 and Other Radionuclides

Comments: (39-1-18) (39-3-7) (39-3-12) (39-4-6) (57-1-4) (74-2) (75-5)

Commenters stated that information about the hazards from individual radionuclides in surplus plutonium should be provided, specifically americium-241 and plutonium-239/240. There was concern that the ingrowth of americium-241 from plutonium-241 had not been considered.

Response: All radionuclides present in surplus plutonium that could result in radiation doses to members of the public and workers are included in the radiation dose calculations. Important among these are plutonium-239/240 and americium-241. Regarding the ingrowth of americium-241 from plutonium-241, the United States stopped producing plutonium in 1988, and 80 percent of plutonium had been already produced by 1970 (FAS 2023). Since 1970, more than 90 percent of the ingrowth of americium-241 from plutonium-241 has already occurred. The dose from americium-241 in surplus plutonium has been considered, and future ingrowth of americium-241 will result in a small additional dose. A textbox has been added to Section 1.1 of this Final SPDP EIS to provide additional information about plutonium and americium-241.

15.9 Human Health – Radiological – Neutron Dose

Comments: (39-3-20)

One commenter noted that surplus plutonium disposition may involve high neutron dose rates and questioned DOE's ability to adequately monitor workers for neutron dose and its biological effects.

Response: DOE is aware of the potential for neutron doses associated with TRU radionuclides that would be present during surplus plutonium disposition activities. DOE's recent experience includes monitoring 10,900 workers for neutron dose at the LANL and 6,500 workers at SRS during calendar year (CY) 2021 (DOE 2023). Across the DOE Complex nearly 68,000 workers were monitored for neutron dose during calendar year 2021. The estimates of external dose from surplus plutonium activities in the SPDP EIS include neutron dose as well as penetrating gamma dose. Radiation weighting factors are applied for different neutron energies to account for the varying biological effects of the spectrum of neutron energies. Other than the increased risk of latent fatal cancer that is assumed to occur without threshold and which is addressed in the EIS, no other health effects are expected to occur. This comment did not result in a modification in the Final EIS.

15.10 Human Health – Radiological – Human Health and Radiological Safety

Comments: (39-2-5) (76-1)

One commenter requested that additional information be provided about the human health and radiological safety hazards of plutonium. Another commenter expressed concerns regarding training for site personnel.

Response: Additional information about the hazards of plutonium has been added in a textbox in Section 1.1 of the Final SPDP EIS. Section 5.1 of the SPDP EIS refers to DOE Order 426.2 related to

training, qualification, and certification for staff at DOE nuclear facilities. Further information about the training process as well as comments related to safety documentation and programs at sites that are not part of SPDP are not relevant to the impacts of SPDP and are not discussed in the SPDP EIS.

15.11 Human Health – Radiological – Baseline Population

Comments: (39-1-3)

One commenter stated that the baseline population summarization in the EIS presents a misleading picture for the LANL site.

Response: NNSA followed a well-established standard practice in its characterization of the population surrounding the LANL site by considering the population living within 50 mi of the Plutonium Facility (PF-4). This practice is based on calculations of doses to members of the public at different distances from the source of radioactive material. Individuals located beyond 50 mi from the source receive very small doses that would result in a trivial addition to the collective dose. Albuquerque lies on the edge of that 50 mi radius, and thus considerable additional population is found within the 50–60 mi radial band. However, the population characterization in the SPDP EIS presents an accurate portrayal of the significance of the size of the communities surrounding LANL that would be affected by releases during normal operations and accident conditions. This comment did not result in a modification in the Final EIS.

16.0 Human Health – Nonradiological

16.1 Human Health – Beryllium Hazard

Comments: (74-4)

One commenter indicated that beryllium hazards are not adequately addressed.

Response: There is a potential for worker exposure to beryllium during SPDP operations. Hazards of beryllium exposure are addressed through 10 CFR 850, “Chronic Beryllium Disease Prevention Program.” DOE facilities must prepare and submit a Chronic Beryllium Disease Prevention Program to DOE for review and approval.

A statement regarding the potential for worker exposure to beryllium was added to Sections 4.1.2.7.3 and 4.1.3.7.3.

17.0 Human Health Accident Analysis

17.1 Accident Analysis – Adequacy of Accident Analysis

Comments: (39-1-4) (39-1-6) (39-1-7) (39-1-9) (39-1-10) (39-1-11) (39-1-12) (39-1-13) (39-1-19) (39-1-20) (39-3-8) (69-3) (74-3)

One commenter questioned the adequacy of the evaluation of accidents in multiple ways including:

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- stating that the accident analysis in the 2015 SPD SEIS is not adequate
- indicating that the Draft SPDP EIS should include an up to date status of safety upgrades and operations
- indicating that new safety deficiencies have been found since the 2015 SPD SEIS was written
- indicating that the EIS stated that the LANL DSA is too conservative and therefore accident consequences from DOE-approved DSAs may need to be reduced in order to be more “realistic”
- indicating that the LANL DSA is not 10 CFR Part 830 compliant and NNSA has failed to provide updated and 10 CFR 830 compliant DSAs
- indicating that leak path factors from the 2015 SPD SEIS are not adequate and expressing concerns about the LANL leak path factor analysis
- stating that the use of exigent circumstances process at LANL needs to be addressed
- indicating that the SPDP EIS does not consider heat source plutonium.

Other commenters indicated that risk assessments in the SPDP EIS need to take human error and the past safety histories of these sites into account as well as the risks of accidental criticality.

Response: Scenarios that represent the spectrum of postulated accidents were developed for this SPDP EIS. A maximum reasonably foreseeable accident as defined in the DOE’s *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements* (DOE 2004) is an accident with the most severe consequences that can be reasonably expected to occur for a given proposed action. It is not the same as a worst-case accident. A worst-case accident is one whose probability is so remote or speculative as to render it not reasonably foreseeable and therefore not helpful to the decisionmaker.

The Defense Nuclear Facilities Safety Board letter to DOE (dated August 11, 2022) has been referenced in the comments. This letter discusses planned receipt and repackaging of large amounts of heat source plutonium (plutonium-238) at LANL. The receipt and repackaging of heat source plutonium is not within the scope of the SPDP EIS. The SPDP EIS is evaluating the disposition of surplus weapons-usable plutonium composed largely of plutonium-239. For this reason, the exigent process circumstances related to heat source plutonium are not considered in the EIS.

The operational accidents scenarios selected are those used in the LANL TA-55 DSA for PDP and the SRS K-Area Complex DSA for dilution and C&P because these accidents were deemed to remain representative of the proposed plutonium disposition activities under the Preferred and No Action Alternatives. Facility-wide events (e.g., seismic, external impacts) and operational accidents are analyzed based on using only the SPDP throughput for the MAR, although for each of the sub-alternatives, the actions will be carried out in a portion of the identified facilities, with other activities also occurring. This allows a more direct comparison between the accident consequences from the different SPDP alternatives and sub-alternatives.

The accident consequences are based on the use of dose conversion factors based on a supplement to Federal Guidance Report [FGR] 13. NNSA assumed the most conservative of the pit (weapons-grade) and non-pit (K-Area bounding isotopic) isotopic mixes in the consequence analyses.

In general, DSA factors that were provided in the LANL DSA for PDP in PF-4 were used for the accident analyses of PDP activities at SRS in Buildings 105-K and 226-F. Likewise, the SRS DSA factors for dilution and characterization and packaging activities were used for the accident analyses for these activities in PF-4 and the Drum Handling Facility at LANL for the All LANL Sub-Alternative. The DSA factors used for the calculation of the postulated accident doses include the damage ratio, the airborne release fraction, the respirable fraction and the leak path factor. An LPF of 0.005 is used for dilution accident scenarios. This LPF is based on at least one stage of high-efficiency particulate air (HEPA) filters functioning. For PDP and the C&P accident scenarios more conservative LPFs are used, which range from 0.05 to 1.0.

DSAs prepared by LANL for PF-4 and by SRS for the 105-K building were reviewed as a valuable source of information during development of the accident consequence analysis for this SPDP EIS. A central focus of the DSA process is to demonstrate that safety controls sufficient to protect workers and the public from accidents that could occur as infrequently as once every 1,000,000 years have been or will be put in place during facility operations. The DSA process assists in determining what aspects of facility operation require engineered or administrative controls to reduce the probability and consequences of accidents. In contrast the purpose of the NEPA analysis is to quantify the risk and provide estimates of the probabilities or consequences of Postulated accidents.

Consistent with the DSA purpose, source terms and other assumptions used for bounding safety analysis frequency and consequence estimates are conservative, that is, they overestimate the expected impacts. In reality, the actual risk of the facility operations is expected to be much lower than portrayed in DSAs when the necessary controls, brought to light by the DSA process, are applied. In general, a NEPA analysis will make many assumptions since the proposed facility or purposed changes have not been designed at the time of the NEPA analysis. These assumptions are based on experience with similar facilities and operations and expert engineering judgment. As a result, this leads to differences between a NEPA document and a DSA in assumptions and estimated doses to the noninvolved worker, maximally exposed individual, and the public. Therefore, the doses presented in this SPDP EIS may not match those presented in the DSAs. NNSA has compared the doses presented in this SPDP EIS against the DSAs and determined that they are more realistic, while still conservative, estimates of doses that could result under accident conditions.

Criticality risks were included in the accident analysis as described in Appendix D.

17.2 Accident Analysis – General Accident Analysis

Comments: (68-1-18)

A commenter indicated that the radiological and chemical accident analyses are not adequate. The commenter further indicated that a statement was made that the human health analysis for facility radiological incidents were not analyzed because uncertainties are “quite large.” The commenter also indicated that large amounts of diesel fuel and lubricant would be onsite as a result of construction and an analysis on impacts associated with the release of these chemicals should be conducted.

Response: In Sections 4.1.2.7.2 and 4.1.3.7.2 of the SPDP EIS, NNSA addresses how radiological accidents are evaluated for noninvolved workers, the maximally exposed individual (MEI), and the offsite population. However, as discussed in Section 4.1.2.7.2 and as referenced by the commenter, workers that are directly involved in the SPDP operations processes could receive high radiation doses from the evaluated accidents. The dose consequences to these involved workers are described in this SPDP EIS,

but not quantified (calculated) because of the variability in assumptions (as discussed in Section 4.1.2.7.2).

Chemical hazards associated with the SPDP processes, such as diesel fuel, are considered standard industrial hazards as discussed in Sections 4.1.2.7.3 and 4.1.3.7.3 of the SPDP EIS. As indicated, DOE safety programs are in place to minimize the consequences of these types of hazards. This comment did not result in a modification in the Final EIS.

17.3 Accident Analysis –Accident Scenarios

Comments: (39-2-8) (71-3)

One commenter expressed concern over the potential for wildfires, concerns related to the size of standoff areas and the consequences of storing and shipping waste drums. A second commenter indicated that the SPDP EIS did not address an accident similar to what occurred in 2014 at WIPP and also expressed concern that a similar accident could occur and indicated that the public should be made aware of impacts from facility accidents and transportation as well as detailed emergency plans.

Response: In Sections 4.1.2.7.2 and 4.1.3.7.2 and Appendix D in the SPDP EIS, NNSA addresses the evaluation of accident scenarios. The potential impacts of transportation accidents were provided in Section 4.1.6 and Appendix E. Emergency management programs were discussed in Sections 3.2.7.5 and 3.3.7.5. DOE Order 151.1C (2005) and DOE Order 151.1D (2016) provide requirements for the emergency management programs.

Wildfires are discussed in the SPDP EIS in relation to visual and ecological resources but the more severe accidents resulting in a fire are those that are initiated within the building, for instance a seismic event accompanied by a fire. The potential impacts of wildfires on LANL were evaluated in Appendix D of the 2008 LANL SWEIS (DOE 2008a). Wildfires are a reasonably expected event in the region; in the 2008 LANL SWEIS, the annual frequency of occurrence was estimated to be 0.05 (once every 20 years). The evaluation included in the 2008 LANL SWEIS identified the facilities most at risk of radiological release in the event of a wildfire and did not include any buildings in TA-55. Wildfires such as the Las Conchas fire of June 2011 and Cerro Grande fire of May 2000 are not expected to threaten these facilities because the shells of these facilities are constructed of noncombustible materials and a buffer area free of combustible materials is maintained around them. In recognition of the hazards of wildfire, forests are thinned as part of the ongoing Wildfire Mitigation Program at LANL. The purpose of the thinning is to reduce the fuel load available in the event of a fire. A wildfire in the LANL region could indirectly affect operations at LANL by interrupting electrical services and limiting access to roadways. In the event of a wildfire, the LANL emergency operations center would be activated and, as with the Las Conchas fire, if determined to be necessary, LANL and the townsite would be preemptively evacuated. If a regional wildfire disrupted the power provided to PF-4, emergency backup power would be provided locally to maintain the most important systems. Emergency backup power would be provided to PF-4 by the TA-3 power plant. Emergency backup generators dedicated to PF-4 would provide power to that facility. Plutonium materials stored within LANL plutonium facilities or in ongoing operations are generally stable in their configuration and would not require active cooling systems to keep them stable. Therefore, maintenance of power is not necessary to prevent significant releases to the environment.

An accident similar to the one that occurred in 2014 in the organic absorbent material within the shipping drums resulted in significant lessons learned and a number of corrective actions following the

review of the event. The WIPP WAC does not allow organic absorbent materials, and SPDP implements the WIPP WAC. A similar accident was not considered in this SPDP EIS because absorbent materials are not used in the adulterant for the diluted plutonium, thus precluding a similar accident.

These comments did not result in a modification in the Final EIS.

17.4 Accident Analysis – Historical Accidents

Comments: (71-15) (71-16)

One commenter indicated that Section 3.2.7.4 should include further details on the current and historical information relevant to accidents.

Response: In Section 3.2.7.1 of the SPDP EIS, NNSA addresses normal operations including releases permitted through state and national regulatory authorities for the most recent 5 year period. The information in this section is based on annual site environmental reports. In Section 3.2.7.4, NNSA provides current and historical information relevant to accidents at LANL. However, the SPDP EIS does not conclude that no accidents will occur at LANL, in fact NNSA addresses a range of unlikely to extremely unlikely accidents that might occur at LANL in Section 4.1.2.7.2 and Appendix D.

Numerous safety studies have been performed for the SPDP process steps and these are included in the various safety analyses that were reviewed as part of the accident analysis. A process hazard analysis will be conducted prior to the start of operations and that will be used to update the current facility DSA. However, the focus of the environmental impact analysis is to determine the potential environmental impacts that could occur if the proposed action (or alternative action) goes forward. These comment did not result in a modification in the Final EIS.

17.5 Accident Analysis – Seismic

Comments: (56-4-6) (56-6-1) (79-1-11) (39-2-4)

Commenters indicated that the seismic accidents in the SPDP EIS should be based on the probabilistic seismic hazard analysis.

Response: As referenced in Section 3.2.2 of the SPDP EIS, NNSA reviewed the probabilistic seismic hazard maps from the 2018 update to the U.S. Geological Survey's National Seismic Hazard Model (NSHM), the most recently published update to the NSHM. As described in Section 3.2.2, the site-specific probabilistic seismic hazard analysis at LANL results in a larger (i.e., more conservative) estimate of peak ground acceleration (for an event with a return period of about 2,500 yr) than the 2018 update to the NSHM. As described in Petersen et al., the 2018 NSHM resulted in similar (or slightly lower) seismic hazard estimates for northern New Mexico than the 2014 NSHM.

Accident analyses use the probabilistic seismic hazard analysis to define the seismic hazard. An update or reanalysis of the 43robabilistic seismic hazard analysis is not a part of the EIS process, but it is an ongoing consideration for the LANL site. These comments did not result in a modification in the Final EIS.

17.6 Accident Analysis – MEI Receptor

Comments: (68-1-17)

A commenter indicated that many areas within the LANL property are accessible to the public, thus the MEI should consider someone on the LANL property.

Response: DOE Order 458.1 indicates that the MEI is a hypothetical individual who – because of realistically assumed proximity, activities, and living habits – would receive the highest radiation dose, taking into account all pathways, from a given event, process, or facility. This location is assumed to be outside of the site boundary because although members of the public may at times be onsite for various reasons, they are prohibited from living on a DOE site.

The location of the MEI at LANL as described by NNSA in Section 4.1.2.7.1, is 1,018 m north-northeast from PF-4. This comment did not result in a modification in the Final EIS.

17.7 Accident Analysis – Number of Workers Affected

Comments: (39-3-4) (39-3-6)

A commenter indicated that the SPDP EIS needs to address the total number of workers that could be affected by accidents at PF-4. The commenter also requested information on specific types of medical assistance that would be provided to workers that inhaled plutonium during an accident.

Response: In Sections 4.1.2.7.2 and 4.1.3.7.2 of the SPDP EIS, NNSA provides estimated doses to a representative involved and noninvolved worker. The total number of workers at each site under the Preferred and No Action Alternatives are shown in Sections 4.1.2.9 and 4.1.3.9. These numbers only pertain to the SPDP related activities. The total number of workers in any facility would vary depending on the activities occurring in that facility at any given time.

All sites in the DOE Complex have an established emergency management program in accordance with DOE Order 151.1D, Chg. 1. Some of the program elements include emergency planning, emergency medical responses, and protective actions. Medical interventions can vary based on the nature of the incident. When necessary, the Radiation Emergency Assistance Center/Training Site (REAC/TS) can be activated to provide subject matter experts and technical assistance. REAC/TS is an NNSA asset and a leader in emergency medical response to radiological incidents. REAC/TS is staffed for 24-hr emergency response and will provide technical assistance and direction upon request.

The emergency management plans require a facility-specific evaluation of accident conditions and associated responses to provide worker safety. The emergency management programs are discussed by NNSA in Sections 3.2.7.5 and 3.3.7.5.

These comments did not result in a modification in the Final EIS.

17.8 Accident Analysis – Concern About Accident Occurrences at LANL

Comments: (4-4)

One commenter indicated that multiple accidents have occurred and will occur at LANL. The commenter was also concerned about accidents caused by LANL waste stored at LANL and the WIPP facility.

Response: In the SPDP EIS, NNSA evaluates a range of postulated accidents associated with SPDP activities as discussed in Sections 4.1.2.7.2 and 4.1.3.2 and Appendix D of the EIS including accidents related to the storage of waste in the proposed Drum Handling Facility.

In Section 4.1.5, NNSA indicates that the activities that would occur at the WIPP facility are within the bounds of previous NEPA documents related to WIPP and that includes facility accidents (DOE 1997b). The response in 17.3 discusses the accident related to a storage drum that occurred at WIPP.

This comment did not result in a modification in the Final EIS.

17.9 Accident Analysis – Inadequate LANL DSA

Comments: (39-2-1)

A commenter indicated that the LANL cleanup operations DSA is inadequate and has not been updated to meet the 10 CFR Part 830 regulations.

Response: The facility accident analyses are presented by NNSA in Sections 4.1.2.7.2 and 4.1.3.7.2 and Appendix D of the SPDP EIS. The SPDP EIS accidents are based on scenarios that represent the spectrum of reasonably foreseeable accidents. The accident assumptions include the MAR associated with the SPDP process as well as reasonably conservative damage ratios, airborne release fractions, respirable fractions, and leak path factors. Evaluation of the facility safety basis is performed in accordance with requirements in 10 CFR Part 830 Nuclear Safety Management, which is a separate process from the development of an environmental impact statement. Further, LANL legacy waste cleanup operations will not be impacted by SPDP operations and are outside the scope of this SPDP EIS.

This comment did not result in a modification in the Final EIS.

17.10 Accident Analysis – Adequacy of Structures Systems and Components

Comments: (39-1-14) (39-1-15) (39-1-17)

One commenter indicated that the accident analysis should consider the current state of the safety and non-safety related structures, systems, and components currently at LANL. The commenter also asked about heat source plutonium (plutonium-238) and emergency response activities.

Response: An evaluation of the current state of safety systems and safety related structures, systems and components at PF-4 is not within the scope of this SPDP EIS. The evaluation of the facility safety basis is performed in accordance with requirements in 10 CFR Part 830 Nuclear Safety Management.

Activities for the handling and management of plutonium-238 (used as a heat source in radioisotope thermoelectric generators for space exploration and other missions) are not in the scope of the SPDP

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EIS. The SPDP EIS is evaluating the disposition of surplus weapons-usable plutonium composed largely of plutonium-239.

All sites in the DOE Complex have an established emergency management program in accordance with DOE Order 151.1C or DOE Order 151.1D. Some of the program elements include emergency planning, training and drills, emergency medical responses, and protective actions. The emergency management programs are discussed in Sections 3.2.7.5 and 3.3.7.5. These comments did not result in a modification in the Final EIS.

17.11 Accident Analysis – Particulate Uptake

Comments: (39-2-6) (39-3-10)

A commenter stated that the SPDP EIS needs to explain why the lessons learned from the Idaho National Laboratory Materials and Fuels Complex accident at the Zero Power Physics Reactor are not understood around the DOE Complex. The commenter indicated that the SPDP EIS needs to include an explanation of why no technical analysis supported the particle sizes of plutonium material inhaled and why plutonium-241 inhalation ignores americium in-growth in the body.

Response: The focus of the SPDP EIS is on the potential impacts resulting from the proposed activities related to SPDP. Activities related to SPDP do not involve the Idaho National Laboratory, Materials and Fuels Complex, Zero Power Physics Reactor, or spent nuclear fuel, and would not occur in fume hoods as with the Zero Power Physics Reactor accident. The response in 15.8 addresses the concern regarding plutonium isotopes and americium-241 ingrowth. These comments did not result in a modification in the Final EIS.

17.12 Accident Analysis – Concerns Related to the Release of Plutonium Oxide and the Potential for Remediation

Comments: (10-1) (54-10) (56-3-6) (57-2-4) (58-30-2) (58-35-1) (58-40-2) (82-5)

Commenters expressed concerns about the ability and cost of remediating impacts following an accidental release of plutonium oxide. One commenter expressed concern about terrorist activities.

Response: In Sections 4.1.2.7.2, 4.1.3.7.2 and Appendix D of the SPDP EIS, NNSA evaluates a range of postulated accidents associated with SPDP activities. The risk of occurrence for these accidents is also provided. These accidents involve the release of plutonium oxide. Although Sections 3.2.7.5 and 3.3.7.5 briefly discuss DOE established emergency management programs, the costs of remediation are highly speculative, and the magnitude could vary based on the specific accident and releases. DOE would be expected to take mitigative actions to prevent substantial impacts to the public. These comments did not result in a modification in the Final EIS.

18.0 Intentional Destructive Acts

18.1 Intentional Destructive Acts – Concern

Comments: (13-6) (48-1) (56-12-1) (58-34-2)

Commenters expressed concern about the risks of intentional destructive acts focused on the plutonium during the processing, packaging, transportation, and disposal at WIPP. One commenter asked for information showing that the EIS diversion activity scenarios are not credible. Another commenter asked that the EIS provide information about the worst-case scenario. One commenter requested that NNSA show that diversion and proliferation risks of disposal in WIPP would be comparable to those that would result from imposing a “spent fuel standard.”

Response: In Sections 4.1.2.7.4 and 4.1.3.7.4 of the SPDP EIS, NNSA discusses a classified analysis of intentional destructive acts. The classified analysis evaluates the potential impacts resulting from a successful attack on either the facilities at LANL or SRS or during transportation. As indicated in this SPDP EIS, substantive details about intentional destructive act scenarios, including security measures, countermeasures, and potential impacts are not released to the public because disclosure of this information, could be exploited by enemies to plan attacks. NNSA believes that the security force and systems of security controls would prevent a successful intentional destructive act for both alternatives and across all sub-alternatives for facilities and transportation activities.

As discussed in Section 1.2 of the SPDP EIS, NNSA’s purpose and need for action is to safely and securely disposition plutonium that is surplus to the Nation’s defense needs so that it is not readily usable in nuclear weapons. For both the Preferred Alternative and the No Action Alternative, NNSA is using physical and chemical barriers to minimize the proliferation risks from activities associated with the disposition of the surplus plutonium. The “spent fuel standard” referred to by one commenter refers to a third barrier of highly radioactive material. This additional barrier is not employed in either the Preferred or No Action Alternative because HLW and spent nuclear fuel are not included as part of the dilute and dispose strategy. The “spent fuel standard” was a part of the previously considered MOX fuel alternative, which was not evaluated further, as discussed in Section 1.4 of this SPDP EIS. NNSA is confident that the adulterant and disposal at WIPP results in plutonium that could never again be readily used in a nuclear weapon and will eliminate the diversion and proliferation risks of disposing of the surplus plutonium.

Response 5.1 provides further information related to the safeguards considered for the transport vehicles that will be used to transport pits, plutonium oxide, and diluted plutonium oxide.

These comments did not result in a modification in the Final EIS.

19.0 Cultural Resources

19.1 Cultural Resources – Impacts on Cultural Properties

Comments: (68-1-9)

One commenter indicated that the Draft SPDP EIS incorrectly claims minimal or no impacts on cultural properties without having researched or consulted with potentially affected pueblos.

Response: Sections 4.1.2.8 and 4.1.3.8, discuss impacts on cultural and paleontological resources due to the Preferred and No Action Alternatives. Section 5.4 identifies federally recognized Native American groups that were consulted regarding past LANL or SRS activities or attended recent briefings on this SPDP EIS. Section 1.7 has been added to the Final EIS to specifically address the tribal engagement that occurred on the SPDP.

20.0 Socioeconomics

20.1 Socioeconomics – Traffic Assessment

Comments: (68-2-1)

One commenter stated that the traffic impact analysis in the EIS is inadequate for several reasons, including lack of consideration of program-related truck traffic and the need for a larger traffic study area.

Response: NNSA’s traffic analysis presented in the SPDP EIS focused on the ingress and egress of staff associated with construction and operations. These impacts are most noticeable in the Pajarito Road corridor approaching PF-4 from the north and the south. NNSA did not find appreciable additional traffic impacts from program-related changes in staffing levels in any off-site approaches to the LANL site. Further, as indicated in Appendix E, Section E.8, the estimated number of shipments for construction material is taken from a previous analysis of the number of shipments needed to build a standalone PDP capability at SRS. As indicated in Appendix E, a smaller impact is anticipated for the assumed construction activities that are described in this SPDP EIS. The PDP facility described in Appendix B for SRS would use portions of existing infrastructure thereby leading to a smaller impact. A PDP capability already exists at LANL and the construction activities that are anticipated at LANL as described in Section 2 and Appendix B involve smaller and less complex buildings resulting in significantly fewer construction-related truck shipments. NNSA does not anticipate appreciable traffic impacts from the construction traffic. This comment did not result in a modification in the Final EIS.

20.2 Socioeconomics – Compensation Attributable to Safety Concerns and Hiring Practices

Comments: (39-4-1) (40-5)

One commenter requested consideration of compensation to local residents attributable to safety-related concerns from LANL operations. Another commenter requested that NNSA be intentional in forming a diverse and inclusive team at the executive, management, staff, and craft levels at LANL.

Response: DOE, SRS, and NNSA follow the hiring guidelines set by the Office of Management and Budget for the Federal government, which address diverse and inclusive employment (OPM 2021). While these concerns may be of general interest to stakeholders, they are not within the scope of NNSA’s environmental review under NEPA as addressed in the SPDP EIS. Other avenues exist for such concerns to be raised to NNSA’s attention.

The Price-Anderson Nuclear Industries Indemnity Act and the Price-Anderson Amendments Act establish a system of financial protection for persons who may be injured by a nuclear incident arising from activities conducted by or on behalf of DOE. Because these issues fall outside of the NEPA environmental review process, these comments did not result in a modification in the Final EIS.

21.0 Waste Management

21.1 Waste Management – Waste Disposal Options

Comments: (68-2-3)

A commenter stated that disposal options for HLW and LLW were not sufficiently described.

Response: The radioactive wastes generated by the proposed actions are CH-TRU, LLW, and MLLW. As stated in Section 2.1.1.2.5 of the SPDP EIS, WIPP is the only waste repository for defense-related CH-TRU wastes. An analysis of the impacts of transportation and storage of defense-related wastes at WIPP can be found in the WIPP EIS and its supplements (DOE 1980, DOE 1990, DOE 2000). The potential exists for MLLW and LLW to be disposed of at off-site commercial locations. A bounding estimate of impacts from transportation can be found in Tables 4-33 and 4-34 of this SPDP EIS. This comment did not result in a modification in the Final EIS.

21.2 Waste Management – Quantity of Waste Generated

Comments: (10-6)

A commenter stated that the dilute and dispose process would increase the quantity of radioactive and hazardous waste.

Response: Radioactive and/or hazardous waste would be produced by all options of the proposed actions. The dilute and dispose processes and its associated waste streams are summarized in Sections 4.1.2.11 and 4.1.3.11 of the SPDP EIS. A full comparison of all proposed alternatives can be found in Appendix C, Table C-35. This comment did not result in a modification in the Final EIS.

22.0 Environmental Justice

22.1 Environmental Justice – Assessment Methods

Comments: (54-11) (61-9) (65-14) (68-1-4) (68-1-5) (68-1-6) (90-11) (90-13) (90-14)

Commenters stated that the environmental justice impact assessment is inadequate for several reasons, including a lack of description of any program-related community engagement and outreach activities, improper community identification approaches, lack of consideration of transportation routes in the assessment, and lack of clear discussion of impact assessment methods.

Response: In Sections 3.2.12 (LANL) and 3.3.12 (SRS) of the SPDP EIS, NNSA provides maps that were developed based on CEQ guidance and discusses the processes and tools for developing the maps. The impacts are discussed in Sections 4.1.2.12 (LANL) and 4.1.3.12 (SRS).

In Section 4.1.6 of the SPDP EIS, NNSA details the anticipated human health impacts of transporting radioactive material, hazardous waste, and construction materials associated with the alternatives considered. No impacts, as expressed by risk-weighted LCFs, traffic fatalities, or emissions, were found under any alternative considered. Thus, minority or low-income populations found along the

transportation routes are not likely to experience human health impacts from these activities. All environmental justice assessment methods in the SPDP EIS are consistent with requirements in Executive Order 1289, Executive Order 14008, guidance from the CEQ, and DOE's Environmental Justice Strategy. These comments did not result in a modification in the Final EIS.

22.2 Environmental Justice – Impacts on Communities

Comments: (56-7-5) (56-8-3) (57-5-3) (58-4-2)

Commenters expressed concern about communities with environmental justice concerns, including underserved, overburdened, or otherwise disadvantaged communities, which could be affected by the proposed action or alternatives.

Response: NNSA understands the concerns raised by these commenters. Care has been taken in this SPDP EIS to explicitly identify the relevant affected traditionally underserved or overburdened communities, including tribal populations, other racial or ethnic minorities, and low-income people, that may be affected by the alternatives considered.

In Sections 3.2.12 (LANL) and 3.3.12 (SRS) of this SPDP EIS, NNSA provides maps that were developed based on CEQ guidance and discusses the processes and tools for developing the maps. The impacts are discussed in Sections 4.1.2.12 (LANL) and 4.1.3.12 (SRS). All environmental justice assessment methods in the SPDP EIS are consistent with requirements in Executive Order 1289, Executive Order 14008, guidance from the CEQ, and DOE's Environmental Justice Strategy. These comments did not result in a modification in the Final EIS.

22.3 Environmental Justice – Economic Impacts

Comments: (10-11)

A commenter expressed concern regarding the equity of NNSA's planned investments at LANL in the context of wider government investment in other social programs.

Response: The scope of NNSA's environmental review under NEPA does not include larger societal equity concerns raised by this comment. The SPDP EIS did not consider the equity of NNSA's funding decisions in the context of spending by the State of New Mexico in NNSA's environmental review of the alternatives presented. This comment did not result in a modification in the Final EIS.

23.0 Transportation

23.1 Transportation – Description

Comments: (56-11-1) (56-11-3) (68-1-16) (79-1-3)

Commenters requested transportation information such as the number of shipments, amount of plutonium per shipment, transportation routes, information regarding traffic accidents, the timeline for shipments, and risks of returning waste to its point of origin if necessary.

Response: In Section 4.1.6 and Appendix E Section E.7 of this SPDP EIS, NNSA provides details about the number of truck transports of radioactive materials and wastes under each alternative. The total number of truck shipments for each material types (OST transport of nuclear materials—plutonium and uranium; and the various plutonium contaminated waste types: LLW, MLLW, or TRU)—are provided in Table E-6 in Appendix E of this SPDP EIS. As indicated in Table E-6, the total number of shipments under the analyzed sub-alternatives ranges between 4,900 to 6,183 under the Preferred Alternatives (for processing and disposal of 34 MT of plutonium) and 741 to 1,144 in Table E-7 under the No Action Alternatives (for processing and disposal of up to 7.1 MT of plutonium).

As listed in Table 4-33 and Table E-6, the maximum number of shipments that would use highway routes in Santa Fe County would be occur during the All LANL Sub-Alternative, with 6,183 shipments for processing and disposal of 34 MT of surplus pit plutonium and up to 1,269 shipments for processing up to 7.1 MT of non-pit plutonium. However, this SPDP EIS only considers processing up to 34 MT of plutonium and thus the actual number of shipments would be at most 6,183. The contents of the cargo would include plutonium (metal or oxide), as well as LLW and TRU wastes.

In Appendix E, Section E.4.3 of this SPDP EIS, NNSA provides details about the contents of the diluted plutonium packages and their transports characteristics. The diluted plutonium with adulterant results in about 2,700 shipments in Transuranic Package Transporter Model-II (TRUPACT-II) packages for disposal at the WIPP facility (LANL 2023 | Section 2.15.2.2 |); each shipment would contain about 27.8 lbs (12.6 kg) of adulterated plutonium in 42-Type B packages.

In Section 4.1.6.1 and Appendix E Section E.4 of this EIS, NNSA explains that the dominant performance measure in nonradiological impacts is independent of the nature of the cargo being transported and is expressed as traffic accident fatalities resulting only from the physical forces that accidents could impart to humans. The analyses consider hypothetical transportation accident conditions ranging from low speed “fender bender” collisions to high-speed collisions with or without fires. Under accident conditions, the population would be exposed to radiation from released radioactivity if the package was damaged and would receive a direct radiation dose if the package was not breached. For accidents that involve no release, the analysis conservatively assumes that it would take about 12 hours to remove the package and/or commercial vehicle from the accident area and 6 hours was assumed for OST transporter shipments. Therefore, the analyses consider all types of accidents. However, the number of postulated accidents not leading to a traffic fatality or release is not an important risk indicator, and therefore is not specifically reported in Table 4-33 of the SPDP EIS. In addition, as detailed in the 2015 SPD SEIS (DOE 2015a), state-level traffic accidents and fatality rates for each transport route were used. Therefore, the analyses in this SPDP EIS consider the impacts from travel distances in the State of New Mexico, as well as in other states along each specific route. Finally, on average in the United States, the expected traffic injury rate is 21 times larger than the traffic fatality rate in accidents involving large trucks (DOT 2021).

With respect to the information in Table 4-34 of this SPDP EIS, the traffic accident rate is based on the activities related to the construction of a processing facility at SRS. Therefore, the cited accident and fatality rates information are specific to South Carolina for determining construction material transport impacts. As discussed in Appendix E Section E.8, construction activities were discussed in the 2015 SPD SEIS (DOE 2015a) and incorporated by reference. The 2015 SPD SEIS values are considered bounding because construction activities analyzed for this SPDP EIS do not exceed the 2015 SPD SEIS estimated impacts.

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The expected operational durations for each alternative are listed in Table B-2 in Appendix B of this SPDP EIS. The cited duration ranges between 13 years for the No Action Alternative to 28 years for the Preferred Alternatives.

Finally, as presented in Section 4.1.6 and Appendix E of this SPDP EIS, the overall radiological risks of transporting these materials are very small for both alternatives and all sub-alternatives, i.e., it is unlikely that the transportation of radioactive material and waste would cause an additional fatality as a result of radiation, either from incident-free operation or postulated transportation accidents.

These comments did not result in a modification in the Final EIS.

23.2 Transportation – General Concerns

Comments: (10-2) (10-10) (46-2) (57-5-2) (57-12-3) (58-1-3) (58-2-2) (58-36-1) (59-3) (61-1) (63-2) (67-1) (78-1) (90-10)

Commenters expressed concerns regarding the risk of transporting plutonium, including transportation routes, transportation distance, the program timeline, use of convoys for transportation to WIPP, and risks of accidents during transportation.

Response: When developing the proposed action and reasonable options for SPDP, NNSA determined that transportation of plutonium materials between sites cannot be avoided. The transportation of surplus nuclear materials (plutonium, highly enriched uranium) evaluated in this EIS would be carried out by the OST. OST is responsible for the safe and secure transport of government-owned special nuclear materials in the contiguous United States. Even though representative routes are identified in this EIS, specific information about the routes and dates of material movement are classified for reasons of operational security. These materials are transported in highly modified secure tractor-trailers and escorted by armed Federal agents in accompanying vehicles for additional security, as needed. Some key elements of the secure transportation asset, which emphasize the various aspect of the transportation, are provided in the SPD EIS (DOE 1999). Since its establishment in 1975, OST has accumulated more than 140 million miles of over-the-road experience transporting special cargo with no accidents causing a fatality or release of radioactive material (NNSA 2023). OST transports are ongoing activities within the United States, and the transports analyzed in this SPDP EIS would reflect a small portion of the total OST transports.

As described in this SPDP EIS, the transportation of plutonium occurs by truck only. For each destination (processing facility or disposal site), the routes most affected would be the interstate highways that are closest to the site. The route selections for all of the nuclear and radioactive wastes meet the requirements of the highway route control quantities guidance as prescribed in 49 CFR Part 397. The objectives of the regulations are to reduce the impacts of transporting radioactive materials, establish consistent and uniform requirements for route selection, and identify the role of State and local governments in routing radioactive materials. The regulations attempt to reduce potential hazards by prescribing that populated areas be avoided and that travel times be minimized. In the case of Santa Fe County, the truck transport of radioactive materials and wastes would occur on State Route 599, bypassing the city of Santa Fe. As listed in Table 4-33 and Table E-6 of this SPDP EIS, the maximum number of shipments that would use the highway routes in Santa Fe County would be 6,183 for the All LANL Sub-Alternative as discussed in Response 23.1. In addition, the regulations require the carrier of radioactive materials to (1) only operate vehicles on routes that minimize radiological risks and

(2) consider accident rates, transit times, population density and activity, time of day, and day of week when determining risk.

The majority of the transportation routes analyzed in the SPDP EIS as shown in Appendix E occur on interstate highways that do not have at-grade railroad crossings. An analysis of all the routes showed that there are very few at grade crossings on any of the transportation routes. Nevertheless, the motor carriers' drivers have been trained on regulations and are aware of their cargo contents; they are trained to be cognizant of the danger that could be posed when crossing a railroad. Therefore, the likelihood of railroad crossing accidents involving DOE's radioactive materials transport is very unlikely.

Both the incident-free and accident condition transportation risks were evaluated in Appendix E, Section E.7 of this SPDP EIS. NNSA provides additional insight into the severity of accidents in terms of the potential dose to the MEI and the public. Accident consequence assessments were performed for the maximum reasonably foreseeable hypothetical transportation accidents with a likelihood of occurrence greater than 1 in 10 million per year. The analyses results, as summarized in Table E-9 of Appendix E, show both the maximum consequence in terms of population health effects (LCFs) and the likelihood that such accident could occur in urban, suburban, or rural areas, with a frequency greater than 1 in 10 million per year. For the highest consequence involving plutonium oxide powder, the accident likelihood is about 2 in 10 million years, and the consequence is about five LCFs among the exposed population in a suburban area. Therefore, the risk (considering both the likelihood and the consequence) of such an accident in terms of LCFs among the exposed population is one in a million (0.000001), which is essentially zero.

NNSA agrees with the commenter that the transport of nuclear materials and radioactive wastes occurs daily on the Nation's highways, including highways in New Mexico, as a result of commercial and government activities (e.g., nuclear wastes and materials for nuclear medicine). Therefore, the transportation activities analyzed in this SPDP EIS do not present a new or unique hazard. The wastes would be transported to the WIPP facility if they are TRU wastes. The TRU wastes are transported within TRUPACT-II packages. The shipping packages (Type B) are designed to retain its radioactive contents in both normal and accident conditions (10 CFR Part 71). In addition to the normal conditions outlined above, a Type B package must withstand accident conditions simulated by the following:

- free drop from 9 m (30 ft) onto an unyielding surface in a position most likely to cause damage
- free drop from 1 m (3.3 ft) onto the end of a 15-cm (6-in.) diameter vertical steel bar
- exposure to temperatures of 800 °C (1,475 °F) for at least 30 minutes
- immersion in at least 15 m (50 ft) of water.

Compliance with these requirements is demonstrated by using a combination of simple calculation methods, computer modeling techniques, or scale-model or full-scale testing of transportation packages or casks (DOE 2015a|p. E-5|).

Risks to the public from potential transportation accidents involving the TRU wastes are summarized in Section 4.1.6 of this SPDP EIS.

NNSA acknowledges that the transportation accident analyses, as presented in Appendix E and Section 4.1.6 of the SPDP EIS, are based on one truck being involved in the accident. During a convoy transport, if there is an accident, it is assumed that only one truck with material would be involved.

However, the consequence from an OST transportation incident that involves one truck, as opposed to multiple trucks, is very similar. It is unlikely that an incident would occur between transporters in a convoy.

The transportation risk is a product of the likelihood of an accident and its health effect consequences. In a convoy transport the likelihood of an accident, which is a function of the total distance traveled by the number of trucks in the convoy in conjunction with the expected truck accident rate per unit distance traveled, would be similar to that for the same number of trucks traveling alone. In a convoy, the risk is then the consequence involving the potential releases from one truck. Whereas, in non-convoy transport, the risk is the potential release from multiple truck runs equaling the number of trucks in the convoy. Therefore, from the accident risk point of view, both have similar impacts (likelihood and consequence).

In addition, in the areas near the WIPP facility, there could be multiple trucks that appear to be part of a convoy, because of a single point of entry to the WIPP facility. However, these trucks may not have originated from the same location. The TRU Waste Transportation Plan (DOE 2016b) establishes requirements for WIPP transportation drivers, the Transportation Emergency Response program, robust design and fabrication of shipping packages (e.g., TRUPACT-II), and first-responder training. The WIPP Transportation Program is protective of human health and the environment.

Finally, as presented in Section 4.1.6 and Appendix E of this SPDP EIS, the overall risks of transporting these materials are very small for both alternatives and all sub-alternatives, i.e., it is unlikely that the transportation of radioactive material and waste would cause an additional fatality as a result of radiation, either from incident-free operation or postulated transportation accidents. These comments did not result in a modification in the Final EIS.

23.3 Transportation – Concerns with an Emphasis on the Form of Plutonium

Comments: (21-4) (30-1) (47-3) (47-4) (47-5) (51-3) (52-4) (53-1) (57-2-7) (57-4-1) (58-28-3) (58-34-3) (69-6) (77-1-12) (77-1-14) (80-1) (81-3) (82-6) (86-2)

Commenters expressed concerns related to the risk of transporting plutonium, emphasizing the form of plutonium being transported. Concerns included transportation routes, transportation distance, the program timeline, and risks of accidents during transportation.

Response: Powdered plutonium oxide transport would be transported between LANL and SRS during SPDP activities. It would not be transported from Pantex. The diluted plutonium oxide CH-TRU waste transports occur from LANL or SRS, to WIPP. Additional information about the hazards of plutonium was added in a textbox in Section 1.1 of this Final SPDP EIS.

The transportation of nuclear material (plutonium in any form) as described in this SPDP EIS is carried out by the OST. Refer to Response 23.5 for additional information on OSTs. Since its establishment in 1975, OST has accumulated more than 140 million miles of over-the-road experience transporting special cargo with no accidents causing a fatality or release of radioactive material. OST transports are ongoing activities within the United States, and the transports analyzed in this SPDP EIS would reflect a small portion of the total OST transports.

The DOE Office of Packaging and Transportation (OPT) operation, which supports the field offices (e.g., sites) in achieving safe transportation, indicates that in FY 2021, DOE accomplished safe transports of more than 4,000 hazardous materials shipments over 6 million miles with zero reportable transportation accidents (DOE 2021b). OPT achieves its mission by conducting assessments and oversight; providing technical assistance to transportation specialists across the complex; and developing and managing policies, orders, guidance, and tools in accordance with DOE requirements and government regulations.

The transport of the diluted plutonium with adulterant as TRU waste would occur in certified Type B packages. Transportation casks used to transport TRU waste to WIPP (e.g., TRUPACT-II) are NRC-certified Type B casks. Type B casks must meet stringent NRC design, fabrication, operation, and maintenance requirements. Type B casks must be designed to withstand normal transportation conditions, such as exposure to high and low temperatures, varying external pressures, and impact from debris. In addition, NRC certification requires Type B casks to withstand a series of rigorous tests under hypothetical accident scenarios without failing as discussed in the Response 23.2 (10 CFR Part 71).

The TRU Waste Transportation Plan (DOE 2016b) describes the requirements, commitments, route selection, training requirements, transportation operations, emergency considerations, security, and communications that DOE follows. In addition, the plan incorporates the protocols DOE established with the Western Governors' Association, the Southern States Energy Board, and the Council of State Governments' Midwestern Office.

WIPP transportation drivers and first-responder training comply with the requirements (49 CFR 172; DOE M 151.1D [DOE 2008b]). The WIPP Transportation Program is protective of human health and the environment.

The U.S. Department of Homeland Security is responsible for establishing policies for, and coordinating, civil emergency management, planning, and interaction with Federal Executive agencies that have emergency response functions in the event of a transportation incident. If a transportation incident involving nuclear material occurs, guidelines for response actions are outlined in the National Response Framework (DHS 2019). In case of a transportation accident that leads to radiological release, DOE would take a range of mitigation and cleanup actions to minimize the spread of contamination and longer-term impacts of the accident. The Price-Anderson Act (Price-Anderson Nuclear Industries Indemnity Act) and the Price Anderson Amendments Act, which is included in Table 5-1 of this EIS, requires that affected members of the public would be compensated after a transportation accident involving DOE/NNSA radioactive materials.

Finally, as presented in Section 4.1.6 and Appendix E of this SPDP EIS, the overall risks of transporting these materials are very small for both alternatives and all sub-alternatives, i.e., it is unlikely that the transportation of radioactive material and waste would cause an additional fatality as a result of radiation, either from incident-free operation or postulated transportation accidents.

23.4 Transportation – Shipment Security, Emergency Response, and Impacts of Accidents

Comments: (21-7) (24-6) (54-6) (54-13) (56-3-1) (58-23-3) (58-40-1) (67-6) (90-7)

Commenters expressed concerns regarding the security of shipments and emergency response capabilities for communities along transportation routes. In addition, commenters expressed concerns

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regarding the potential impacts of accidents during transportation—economic and health impacts as well as environmental contamination.

Response: Transportation of special nuclear materials and radioactive wastes as described in this SPDP EIS occurs by truck only. Transportation of the plutonium oxide is carried out by OST. Refer to Response 23.5 for additional information on OSTs. The operational goal is, and has been, the transport of these material in a safe and accident-free manner. Since its establishment in 1975, OST has accumulated more than 140 million miles of over-the-road experience transporting special cargo with no accidents causing a fatality or release of radioactive material. OST transports are ongoing activities within the United States, and the transports analyzed in this SPDP EIS would reflect a small portion of the total OST transports.

DOE Order 151.1D, Comprehensive Emergency Management System (DOE 2019), is the basis for establishing a comprehensive emergency management program. The program's order provides detailed, hazard-specific planning and preparedness measures to minimize the health impacts of accidents involving loss of control over radioactive material or toxic chemicals. DOE provides technical assistance to other Federal agencies and to State and local governments. DOE contractors are responsible for maintaining emergency plans and response procedures for all facilities, operations, and activities under their jurisdiction and for implementing those plans and procedures during emergencies. Contractor and State and local government plans are fully coordinated and integrated. In addition, DOE established the Transportation Emergency Preparedness Program so that their operating contractors and State, Tribal, and local emergency responders are prepared to respond promptly, efficiently, and effectively to accidents involving DOE shipments of radioactive material. This program is a component of the overall emergency management system established by DOE Order 151.1D.

The U.S. Department of Homeland Security is responsible for establishing policies for, and coordinating, civil emergency management, planning, and interaction with Federal Executive agencies that have emergency response functions in the event of a transportation incident. If a transportation incident involving nuclear material occurs, guidelines for response actions are outlined in the National Response Framework (DHS 2019). In case of a transportation accident that leads to a radiological release, DOE/NNSA would employ a range of mitigation and cleanup actions to minimize the spread of contamination and longer-term impacts of the accident.

According to the OST's website, OST has a liaison program that provides information to assist first responders during an OST emergency, provides direction for working with Federal agents, and offers in-depth mission briefings. OST's Transportation and Emergency Control Center is a nationwide communications system. This center maintains an emergency contact directory of Federal and state response organizations throughout the contiguous United States (NNSA 2023).

It is expected that response actions would be taken in the context of the Nuclear/Radiological Incident Annex protocols. Based on their initial assessment at the scene, first responders would involve State and Federal resources as necessary. First responders or State and Federal responders would initiate actions in accordance with the Department of Transportation 2016 Emergency Response Guidebook (DOT et al. 2016) to isolate the incident and perform any actions necessary to protect human health and the environment. Actions could include evacuations or other steps to reduce or prevent impacts on the public. DOE would partner with the carrier, shipper, and applicable State and local jurisdictions so that cleanup actions meet regulatory requirements.

The Price-Anderson Act (Price-Anderson Nuclear Industries Indemnity Act), which is included in Table 5-1 of this EIS, would compensate affected members of the public after a transportation accident involving DOE/NNSA radioactive materials. As described in the Price-Anderson Act, as amended, prompt and equitable compensation will be available to the public in the event of a nuclear incident or precautionary evacuation. With respect to activities conducted for DOE, the Price-Anderson Act achieves its objectives by requiring DOE to include an indemnification clause in each contract that involves the risk of a nuclear incident. The Department of Energy Acquisition Regulation sets forth standard nuclear indemnification clauses that are incorporated into all DOE contracts and subcontracts involving source, special nuclear, or by-product material (nuclear material).

For each destination (facility or a disposal site), the routes most affected would be the interstate highways that are closest to the site. Also, the route selection for all of the nuclear and radioactive wastes meet the requirements of the highway route control quantities guidance as prescribed in 49 CFR 397.101 (Requirements for Motor Carriers and Drivers). The objectives of the regulations are to reduce the impacts of transporting radioactive materials, establish consistent and uniform requirements for route selection, and identify the role of state and local governments in routing radioactive materials. The regulations are intended to reduce potential hazards by prescribing that populated areas be avoided and that travel times be minimized. In addition, the regulations require the carrier of radioactive materials to (1) only operate vehicles on routes that minimize radiological risks and (2) consider accident rates, transit times, population density and activity, time of day, and day of week when determining risk.

Finally, as presented in Section 4.1.6 and Appendix E of this SPDP EIS, the overall risks of transporting these materials are very small for both alternatives and all sub-alternatives, i.e., it is unlikely that the transportation of radioactive material and waste would cause an additional fatality as a result of radiation, either from incident-free operation or postulated transportation accidents. These comments did not result in a modification in the Final EIS.

23.5 Transportation – General Opposition

Comments: (4-5) (24-2) (45-1) (58-9-1) (58-9-5) (58-12-1) (59-1)

Commenters expressed general opposition to transportation of surplus plutonium and associated waste.

Response: Both the incident-free and accident condition transportation risks were evaluated in this SPDP EIS. As indicated in the EIS, the overall risks of transporting these materials are very small for both alternatives and all sub-alternatives. When developing the proposed action and reasonable options for SPDP, NNSA determined that transportation of plutonium materials between sites cannot be avoided. Transport of the nuclear materials and radioactive wastes would only occur by truck. In Appendix E, Sections E.2.4 and E.4 of this SPDP EIS, NNSA describes the relevant information about the transportation mode and the regulations for packaging and transportation, respectively.

Transport of nuclear materials and radioactive wastes occurs daily on the Nation's highways, including highways in New Mexico, as a result of commercial and government activities (e.g., nuclear wastes and materials for nuclear medicine). Plutonium oxide transports occur between LANL and SRS, and not from the Pantex. The diluted plutonium oxide CH-TRU waste transports occur from LANL or SRS, to the WIPP facility. The transportation activities analyzed in this SPDP EIS do not present a new or unique hazard and are required to be performed as required by the Department of Transportation applicable regulations in 49 CFR 390 through 397 and applicable DOE Orders and regulations. Safe packaging and

transportation of materials is critical to the success of DOE operations. Annually, DOE transports about 5,000 shipments including radioactive, hazardous, and nonhazardous materials (DOE 2021b) with no reported accidents.

The transportation of nuclear materials (plutonium in any form) in this SPDP EIS is carried out by the OST. OST is responsible for the safe and secure transport of government-owned special nuclear materials in the contiguous United States. These materials are transported in highly modified secure tractor-trailers and escorted by armed Federal agents in accompanying vehicles for additional security, as needed. Since its establishment in 1975, OST has accumulated more than 140 million miles of over-the-road experience transporting special cargo with no accidents causing a fatality or release of radioactive material. OST transports are ongoing activities within the United States, and the transports analyzed in this SPDP EIS would reflect a small portion of the total OST transports.

The transport of the diluted plutonium oxide CH-TRU waste would occur in certified Type B packages. Transportation casks used to transport TRU waste to the WIPP facility (e.g., TRUPACT-II) are NRC-certified Type B casks. Type B casks must meet stringent NRC design, fabrication, operation, and maintenance requirements. Designs for the Type B casks must withstand normal transportation conditions, such as exposure to high and low temperatures, varying external pressures, and impact from debris. In addition, NRC certification requires Type B casks to withstand a series of rigorous tests under hypothetical accident scenarios without failing (10 CFR Part 71).

The TRU Waste Transportation Plan (DOE 2016b) describes the requirements, commitments, route selection, training requirements, transportation operations, emergency considerations, security, and communications that DOE follows. In addition, the plan incorporates the protocols DOE established with the Western Governors' Association, the Southern States Energy Board, and the Council of State Governments' Midwestern Office. WIPP transportation drivers and first-responder training comply with the requirements. The WIPP Transportation Program is protective of human health and the environment.

The OST operation, which supports the field sites for achieving safe transportation, indicates that in FY 2021, DOE accomplished safe transports of more than 4,000 hazardous materials shipments over 6 million miles with zero reportable transportation accidents (DOE 2021b). OST achieves its mission by conducting assessments and oversight, providing technical assistance to transportation specialists across the complex, and developing and managing policies, orders, guidance, and tools in accordance with DOE requirements and government regulations.

Finally, as presented in Section 4.1.6 and Appendix E of this SPDP EIS, the overall radiological risks of transporting these materials are very small for both alternatives and all sub-alternatives, i.e., it is unlikely that the transportation of radioactive material and waste would cause an additional fatality as a result of radiation, either from incident-free operation or postulated transportation accidents.

These comments did not result in a modification in the Final EIS.

24.0 Cumulative Impacts

24.1 Cumulative Impacts – Additional Projects

Comments: (39-2-3) (49-5) (57-1-6) (57-5-1) (90-12)

Multiple commenters asked whether DOE/NNSA had considered the cumulative effects of the SPDP work and other activities, including legacy material cleanup activities at the proposed sites where surplus plutonium activities would occur, other projects related to plutonium such as pit production, and the consolidated interim storage facility for spent fuel being built in Lea County. One commenter was concerned that the SRS would not be able to complete processing of 34 MT because they are only processing one-fifth of a ton (200 kg) a year currently.

Response: In Section 4.2 of the SPDP EIS, NNSA discusses the potential cumulative impacts on the environment that could result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, with the focus on the 50 mi regions surrounding LANL (4.2.3.1) and SRS (4.2.3.2). NNSA also considers cumulative impacts related to disposal of TRU waste at the WIPP Facility (4.2.3.3) and transportation (4.2.3.4). Sections 4.2.3.1 and 4.2.3.2 include discussions of the potential cumulative impacts on human health, staffing, and infrastructure at LANL and SRS.

The cumulative impacts include cleanup of legacy material at both LANL and SRS. At SRS, the cumulative impact analysis also includes the disposition of 6 MT of non-pit plutonium that has an ROD.

There is currently one glovebox available at SRS for dilution of the 6 MT (not part of the 34 MT) and the up to 7.1 MT of non-pit plutonium (a part of the 34 MT) as discussed in Section 1.3 of this SPDP EIS. However, as discussed in Appendix B (B.1.3.3), NNSA is currently installing three additional gloveboxes to allow for an increased throughput rate for the full plutonium disposition mission which also would be operated on a 24-hour 7-days a week schedule. This will allow the completion of both the 6 MT and the 34 MT in FY 2050. These comments did not result in a modification in the Final EIS.

24.2 Cumulative Impacts – Pit Production and Potential for Pitting and Corrosion of Waste Containers

Comments: (11-6) (39-2-9) (49-8) (49-9) (51-1) (56-9-3) (57-2-6) (57-13-1) (58-5-7) (58-31-1) (58-31-2) (58-33-1) (58-38-2) (58-38-4) (61-5) (69-2) (77-1-9) (77-1-16) (77-1-17) (79-1-13) (79-2-4) (80-5) (84-6) (84-11) (86-8) (88-9) (88-11) (88-13) (88-15) (88-16)

Commenters expressed concern that the Preferred Alternative would interfere with the pit production mission to produce pits at LANL in PF-4 and at SRS in Building 226-F. Several commenters indicated that additional workers would need to be hired if both programs went forward, and commenters expressed concerns about cost and safety issues with both missions occurring at LANL and/or SRS. Some commenters added that the cleanup mission also needs to be completed, as well as maintenance and upgrades of existing equipment at SRS or LANL, including the active confinement ventilation system at PF-4.

Some commenters asked that the Final EIS analyze the cumulative impacts to clearly demonstrate that the planned plutonium programs that will occur simultaneously are completely safe and operationally compatible. Commenters also asked that the Final EIS include analysis of the cumulative impacts of the permanent disposition of surplus plutonium waste at WIPP now and into the future.

One commenter asked whether it is contradictory to have the two missions occurring at the same time with one mission being the production of new plutonium pits and the second the disposition of surplus

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plutonium pits. One commenter asked whether the facility that would be used for plutonium disposition as well as for manufacturing pits would be considered a dual-use facility.

One commenter requested further information regarding the potential for pitting or corrosion of waste containers.

Response: In Section 4.2 of the SPDP EIS, NNSA discusses the potential cumulative impacts on the environment that could result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. The NNSA pit production mission is one of the “reasonably foreseeable future actions.” Section 4.2.3.1 and 4.2.3.2 include discussions of potential cumulative impacts on human health, staffing, and infrastructure at LANL and SRS from pit production as well as from the cleanup of legacy materials and other activities such as ongoing maintenance and safety upgrades. Section 4.2.3.3 and Response 8.4 in this Appendix include discussion of potential cumulative impacts from TRU waste disposal at WIPP.

In this SPDP EIS, the Preferred and No Action Alternatives have activities that could occur at PF-4 in LANL and/or in 226-F at SRS, with multiple sub-alternatives for the Preferred Alternative that differ based on the location of the SPDP processing activities. Depending on the sub-alternative(s) identified by NNSA in the ROD following publication of this SPDP EIS, pit production activities and SPDP activities could occur in the same facilities. If pit production and SPDP activities occur in the same facilities, they would not use the same equipment lines.

Plutonium storage containers at SRS have two nested, welded cans. The inner can provides a barrier between the plutonium and the outer can. The outer can is termed the “credited containment barrier.” In addition, the containers are stored inside shipping packages that provide an additional credited containment barrier. DOE has an active surveillance program to verify the long-term safety of the plutonium storage containers and shipping packages until the plutonium is dispositioned. Outer containers have been examined using a microscope and no evidence of corrosion has been seen. No leaking is anticipated.

These comments did not result in a modification in the Final EIS.

24.3 Cumulative Impacts – Radiological

Comments: (80-4) (80-6)

One commenter indicated the need to consider the cumulative impacts of SPDP activities at SRS and the construction and future operation of two new units at the Vogtle nuclear power plant in Burke County, Georgia.

Response: In Section 4.2 of this SPDP EIS, NNSA discusses the potential cumulative impacts on the environment that could result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, including those at SRS. Table 4-35 lists the Alvin W. Vogtle Electric Generating Plant (Vogtle), Units 1 through 4, as projects that are considered in this SPDP EIS cumulative impacts analysis. Table 4-40 lists the cumulative radiation dose to and impacts on the public associated with all four units at Vogtle, SPDP activities, and other past, present, and reasonably foreseeable future operations at SRS. These comments did not result in a modification in the Final EIS.

24.4 Cumulative Impacts – Environmental Justice Communities

Comments: (79-2-3)

One commenter expressed concern that environmental justice communities are affected by multiple and cumulative activities, including weapons testing, legacy contamination from uranium mines and mills, and a nuclear weapon arsenal.

Response: In Section 4.2 of this SPDP EIS, NNSA discusses the potential cumulative impacts on the environment that could result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. The cumulative impacts analysis was based on the regions of influence for each resource area as described in Table 3-1. The region of influence for human health risk was defined as “on-site and off-site areas (within 50 mi of the sites) where radiation, radionuclide, and hazardous chemical exposures could occur to workers and the general population.” Table 4-35 lists the projects and other actions that meet the region of influence criteria and were considered in the cumulative impacts analysis. Past activities, including historic nuclear weapons testing and uranium mining, are considered because any remaining contamination produced from these activities would be reflected in current monitoring data and estimated background doses received by the public. Sections 4.2.3.1.6 and 4.2.3.2.6 discuss the cumulative environmental justice impacts for LANL and SRS, respectively. This comment did not result in a modification in the Final EIS.

24.5 Cumulative Impacts – Decision-making

Comments: (79-1-12)

One commenter indicated that NNSA needs to evaluate the capacity for executing another major construction project especially considering funding constraints and past course changes and delays in decision-making.

Response: Cost is among the factors that decision-makers may consider when selecting an alternative for implementation, but it would not have any significant bearing on the analysis of potential environmental impacts and therefore is not discussed in this SPDP EIS. This comment did not result in a modification in the Final EIS.

25.0 General Support

25.1 General Support for SPDP

Comments: (6-1) (9-2) (15-2) (24-1) (29-1) (40-2) (56-4-1) (70-3)

Commenters expressed general support for DOE/NNSA’s SPDP. Commenters stated that they reviewed the Draft SPDP EIS and believe it to be thorough, complete, and technically viable. Commenters also expressed appreciation for efforts made to reduce the threat of nuclear weapons proliferation by rendering the surplus plutonium unusable for future nuclear weapons. One commenter commended NNSA’s commitment to ensuring the removal of surplus plutonium from South Carolina and dispositioning it at WIPP throughout the lifecycle of this mission.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

25.2 Endorsement of NNSA and/or Specific Sites

Comments: (2-1) (33-4) (40-6) (41-1) (57-6-1) (57-7-1) (57-10-1) (70-2)

Commenters expressed support for the Draft SPDP EIS and specific sites. Specifically, commenters stated support for the role of SRS in activities proposed by the Draft SPDP EIS, acknowledging its safety record and the regional economic benefits provided by its close proximity.

Response: NNSA acknowledges receipt of these comments. These comments did not result in a modification in the Final EIS.

26.0 General Opposition

26.1 General Opposition to SPDP and NNSA/DOE

Comments: (7-1) (7-3) (28-1) (34-2) (39-1-8) (39-3-3) (55-5-4) (56-1-4) (56-2-1) (56-12-2) (58-2-3) (58-4-1) (58-4-3) (58-4-5) (58-7-6) (58-8-6) (58-10-1) (58-17-3) (58-19-2) (58-21-2) (58-22-2) (58-28-2) (58-37-2) (72-1) (77-1-5) (82-1) (85-2)

Commenters expressed general disapproval of proposed SPDP activities, including concerns about the clarity of the information in the Draft SPDP EIS, impacts on surrounding communities, and the State of New Mexico. Specifically, one commenter stated disapproval of plutonium disposal at LANL. Other commenters stated concerns about the overall inadequacy of analysis, DOE/NNSA's stewardship and project management, transportation, climate change, and waste management. One commenter expressed opposition to SPDP and this Draft SPDP EIS based on concerns about the nuclear legacy in New Mexico.

Response: As described in Chapter 4, Environmental Consequences, this SPDP EIS evaluates the impacts of the Proposed Action and the No Action Alternatives at LANL, SRS, and WIPP and for the transportation of materials. The impacts on the health of persons in surrounding communities is also analyzed in Chapter 4 of this SPDP EIS. Likewise socioeconomic and environmental justice impacts on surrounding communities are evaluated in Chapter 4. None of the program alternatives involves disposal of plutonium at LANL.

NNSA prepared the SPDP EIS in compliance with NEPA requirements (42 United States Code [U.S.C.] 4321 et seq.), CEQ requirements (40 CFR Part 1508), and DOE implementing regulations (10 CFR Part 1021). In Section 6 of the SPDP EIS, NNSA lists the personnel that prepared the document and their qualifications. NNSA believes the analysis presented in the SPDP EIS to be adequate. Concerns about DOE/NNSA's stewardship and project management are outside the scope of this environmental document. Waste disposal at the WIPP facility is discussed in Section 4.1.5. The effects of the program alternatives on climate change are addressed in Section 4.2.4. Waste management impacts are discussed in Section 4.1.2.11 and 4.1.3.11. Other activities affecting the State of New Mexico, such as gas and oil production and legacy waste cleanup, are beyond the scope of this SPDP EIS unless there is a cumulative impact as discussed in Section 4.2.

These comments did not result in a modification in the Final EIS.

26.2 Opposition Related to Safety Concerns

Comments: (39-4-9) (58-1-1)

Commenters expressed general opposition to the Draft SPDP EIS based on safety concerns. Specifically, one commenter stated safety concerns regarding work at LANL, including risk factors such as difficulty in the retention of qualified workers and a push toward 24/7 operations. Another commenter stated concerns about the difficulty of properly estimating risk.

Response: NNSA acknowledges receipt of these comments. Safety is discussed in various sections of this SPDP EIS, primarily in Sections 3.2.7 and 3.3.7, although the emphasis and purpose of this SPDP EIS is to discuss environmental impacts. Activities that are conducted at facilities operated by DOE must adhere to regulations found in 10 CFR 830, Nuclear Safety Management, and 10 CFR Part 835, Occupational Radiation Protection. DOE follows these requirements for all activities that make up the dilute and dispose strategy. Risk associated with worker retention is beyond the scope of this SPDP EIS.

As described in Sections B.1.2.1 and B.1.2.2 of this SPDP EIS, pit disassembly and processing and non-pit metal processing operations at LANL are planned to occur on a single shift, while dilution activities are planned to operate via two 10-hr shifts, 4 days a week. Therefore, concerns about 24/7 operations at LANL are beyond the scope of this EIS. These comments did not result in a modification in the Final EIS.

26.3 Opposition Related to the Cost of the Program

Comments: (58-27-2) (58-28-4) (58-30-6) (77-1-7)

Commenters expressed concern about the financial cost of the program and potential impacts on surrounding communities. Specifically, one commenter stated that since taxpayers are paying for this, they need to have a say. Other commenters stated general disapproval of the overall cost. Another commenter stated that U.S. citizens should not spend money on nuclear production or nuclear waste production.

Response: Cost is one of the factors that decision-makers may consider when selecting an alternative for implementation. This SPDP EIS provides decision-makers with information about the potential environmental impacts of each alternative and will inform the decision-maker's selection of an alternative for implementation. Cost does not have any significant bearing on the analysis of potential environmental impacts and therefore is not discussed in this SPDP EIS. These comments did not result in a modification in the Final EIS.

27.0 Out of Scope

27.1 Sites Benefit the Local Communities

Comments: (6-3) (9-4) (20-1) (57-13-4)

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Commenters stated that sites contribute to the local economy and site personnel contribute to local communities through support of community organizations, volunteering, and providing academic presence.

Response: NNSA acknowledges receipt of these comments; however, the topic was not related to issues associated with the environmental impact analysis in this SPDP EIS and therefore the comments are considered to be out of scope. These comments did not result in a modification in the Final EIS.

27.2 DOE's Contracting Approach

Comments: (24-4) (24-5) (24-7)

Commenters expressed concerns regarding the contracting approach for SPDP operations and transportation, asked who covers the insurance of the vehicles used to carry nuclear waste and indicated that the Federal Government should accept responsibility for any situations that occur.

Response: Comments regarding DOE's contracting approach are not related to issues associated with the environmental impact analysis in this SPDP EIS and therefore the comments are considered to be out of scope.

The Price-Anderson Nuclear Industries Indemnity Act and the Price-Anderson Amendments Act establish a system of financial protection for persons who may be injured by a nuclear incident arising from activities conducted by or on behalf of DOE, including transportation of nuclear or radioactive materials.

NNSA further discusses the security of shipments and emergency preparedness concerns in Response 23.4. These comments did not result in a modification in the Final EIS.

27.3 Safety Concerns Without a Nexus to SPDP

Comments: (39-3-5) (39-3-9) (39-4-2) (39-4-3) (39-4-5) (56-7-4) (56-7-6) (56-13-1) (58-9-4) (58-20-2) (58-21-1) (58-25-1) (58-27-3) (58-28-1) (58-38-1) (61-8) (81-1) (87-1)

Commenters expressed concerns related to safety and health that were not directly related to SPDP, including accidents at other DOE sites, health conditions of area residents and livestock, questions related to local cancer cases and other health effects, monitoring of environmental releases, detection of radiological constituents in environmental samples, uranium mining, and wildfires and other climate change concerns. A commenter also requested that the LANL facility move elsewhere.

Response: These comments are not related to issues associated with the environmental impact analysis in this SPDP EIS and therefore are considered out of scope. Safety concerns related to other DOE sites or to accidents that occurred previously do not address issues associated with the analysis in this SPDP EIS and are therefore out of scope. Sections 3.2.7 (LANL) and 3.3.7 (SRS) discuss safety and health requirements and regulations that will need to be adhered to at LANL and SRS for the duration of the SPDP activities. The same sections contain references to past environmental surveillance and monitoring reports for LANL and SRS as a means of describing the existing environment; however, the activities that affected the current environment are not addressed in this SPDP EIS. See also the definition of safety in Response 5.1.

The analysis of accidents in this SPDP EIS is specific to the facilities and types of accidents that could occur during SPDP operations as provided in Sections 4.1.2.7 and 4.1.3.7 of this SPDP EIS. Accidents that previously occurred are discussed in Sections 3.2.7.4 and 3.3.7.4 but are not evaluated in this SPDP EIS.

Estimated radiation doses and LCFs to the public and to on-site workers for the last 5 years from operations at LANL and SRS are presented in Sections 3.2.7 (LANL) and 3.3.7 (SRS), as is the expected background radiation dose to individuals in the vicinity of the sites. In addition, a list of cancer rates in adjacent counties is compared to those in both the entire state and the United States. However, a discussion regarding the likelihood of a specific type of cancer, whether it is due to facility operations or human lifestyle, is beyond the scope of this SPDP EIS.

Although the environmental impacts resulting from historic wildfires, including the Cerro Grande fire, are beyond the scope of this SPDP EIS, the potential effect of the program activities on climate change is addressed in Section 4.2.4.

These comments did not result in a modification in the Final EIS.

27.4 Other Regulatory Items

Comments: (39-2-15) (50-1) (58-16-1) (58-16-2) (58-17-1) (62-3) (70-4) (85-5)

Commenters expressed concerns related to other regulatory items, including the WIPP Permit Renewal process and the Savannah River Site Settlement Agreement with the State of South Carolina.

Response: As discussed in Section 5.2.5 of this SPDP EIS, on March 31, 2020, the Permittees submitted a 10-Year Permit Renewal Application (DOE 2020b). On October 6, 2020, the NMED indicated that the 10-Year Permit Renewal Application was administratively complete and that the WIPP facility could continue to operate under the existing Hazardous Waste Facility Permit while NMED processed the renewal application (NMED 2020). NMED issued a draft permit for public comment in December 2022 (NMED 2022), and the public comment period ended April 19, 2023 (NMED 2023b). NMED issued the final WIPP renewal permit on October 4, 2023. The permit became effective on November 3, 2023 (NMED 2023a). Comments regarding opposition to NMED renewing the permit are outside the scope of this EIS. NNSA acknowledges that DOE has reached a settlement with the State of South Carolina that includes settlement funds distributed to the State of South Carolina as well as an obligation for DOE to remove 9.5 MT of plutonium from SRS by December 31, 2036 (DOE 2020c). Funds were distributed to South Carolina counties by the State legislature, not DOE. NNSA meets with the State of South Carolina periodically to discuss activities associated with the Settlement Agreement. Additional information about the agreement with South Carolina is found in Response 6.1. Further discussion of implementation of this agreement is considered to be out of scope of this SPDP EIS. These comments did not result in a modification in the Final EIS.

27.5 Pit Production

Comments: (21-6) (21-8) (39-1-16) (49-11) (56-9-2) (57-2-9) (57-3-2) (58-7-3) (58-8-4) (58-22-4) (58-22-6) (69-12) (77-1-6) (77-1-8) (84-3) (88-14)

Commenters expressed concerns related to pit production, including plans for facility expansions.

Response: Cumulative impacts that include pit production are described in Section 4.2 of this SPDP EIS. Comments related to pit production that are not specific to the cumulative impacts of SPDP and pit production are considered out of scope. However, NNSA previously considered comments related to pit production during the development of DOE/EIS-0541 (DOE 2020a). These comments did not result in a modification in the Final EIS.

27.6 Disposal of Waste Generated by Activities Other than those of the SPDP

Comments: (58-5-1) (58-11-5)

Commenters expressed concerns about the storage and ultimate disposition of other waste currently at LANL.

Response: As discussed in Section 4.1.2.11 of this SPDP EIS, all waste associated with SPDP operations will be shipped from LANL to an appropriate disposal site. Decisions regarding storage and disposition of non-SPDP waste are outside the scope of this EIS. Section 4.2.3.1 addresses cumulative impacts at LANL and states that impacts from surplus plutonium activities on waste management at LANL would be negligible to minor and that the waste management impacts evaluated in this SPDP EIS would not substantially contribute to cumulative impacts. These comments did not result in a modification in the Final EIS.

27.7 Disposal of Spent Nuclear Fuel

Comments: (55-9-3) (72-3)

Commenters expressed concerns about disposal of spent nuclear fuel, including DOE's Consent-Based Siting program.

Response: SPDP activities do not generate or use spent nuclear fuel. Activities related to DOE's Consent-Based Siting Program for storage and disposal of spent nuclear fuel are outside the scope of this SPDP EIS. These comments did not result in a modification in the Final EIS.

27.8 Disposal of Waste from SPDP at the Yucca Mountain Facility

Comments: (39-2-12) (39-2-17)

Commenters expressed concerns related to surplus plutonium disposal at the Yucca Mountain facility.

Response: The program for a geologic repository for spent nuclear fuel at Yucca Mountain, Nevada, was terminated. Disposal of surplus plutonium at the Yucca Mountain Facility was not analyzed in this SPDP EIS and as discussed in Response 27.7, SPDP activities do not generate or use spent nuclear fuel. These comments did not result in a modification in the Final EIS.

27.9 Opposition to Nuclear Weapons

Comments: (4-1) (4-3) (24-8) (56-1-1) (58-4-4) (58-9-2) (58-21-3) (79-1-8) (79-1-9) (79-2-6) (89-9)

Commenters expressed opposition to the concept of nuclear deterrence, design of new nuclear weapons, nuclear weapons production, and stockpile testing.

Response: The purpose of the SPDP is to safely and securely disposition plutonium that is surplus to the Nation's defense needs so that it is not readily usable in nuclear weapons. NNSA considered comments related to the pit production during development of a previous EIS (DOE/EIS-0541) (DOE 2020a). These comments are not related to issues associated with the analysis in this SPDP EIS and therefore are considered out of scope. These comments did not result in a modification in the Final EIS.

27.10 Weapons Refurbishment and Design of New Weapons

Comments: (58-41-1)

Commenters expressed concerns regarding weapons maintenance and the design of new weapons.

Response: The purpose of the SPDP is to safely and securely disposition plutonium that is surplus to the Nation's defense needs so that it is not readily usable in nuclear weapons. This comment is not related to issues associated with the environmental impact analysis in this SPDP EIS and therefore is considered out of scope. This comment did not result in a modification in the Final EIS.

27.11 Requests for Funding for Various Organizations

Comments: (1-1) (10-15) (90-8)

One commenter requested that DOE and NNSA reinstate funding to the State of New Mexico for maintenance of the facilities and infrastructure necessary to safely complete mission requirements, as part of the WIPP LWA. A second commenter asked for settlement funds for their community. A third commenter recommended that DOE reinstate funding for the independent Environmental Evaluation Group that previously represented concerns of New Mexico and other stakeholders.

Response: Section 15 of the WIPP LWA detailed a 14-year authorization to the State of New Mexico that began in the FY 1998. This comment is not related to issues associated with the environmental impacts analysis in this SPDP EIS, but it has been communicated to concerned DOE organizations for further action as appropriate.

The request for settlement funds has also been communicated to DOE.

Between 1978 and 2004, the Environmental Evaluation Group (EEG) provided independent technical evaluations of the WIPP facility (SRIC 2023). DOE provided funding for the EEG until 2004. The National Academy of Sciences recommended that DOE reinitiate the EEG to represent the concerns of the State of New Mexico. However, the role that EEG played is now met by three different Federal and state organizations. The NMED provides independent technical evaluations on behalf of the State, and also has regulatory and enforcement authority, if needed, to represent the interests of New Mexico. The EPA is the independent Federal regulator of WIPP. The Defense Nuclear Facilities Safety Board also assesses technical and safety issues related to the WIPP facility and certain DOE waste generator sites.

These comments are not related to issues associated with the analysis in this SPDP EIS and therefore are considered out of scope. These comments did not result in a modification in the Final EIS.

28.0 References

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Surplus Plutonium Disposition Program Comment Response Report

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Attachment B to Volume 3

Surplus Plutonium Disposition Program - Correspondence Related to Public Review of the SPDP Draft EIS and Public Hearing Transcripts

This Attachment is a compilation of all the documents that the National Nuclear Security Administration (NNSA) received on the Draft Surplus Plutonium Disposition Program (SPDP) Environmental Impact Statement (EIS) during the public comment period, including comments received after close of the period that NNSA was able to consider. All comments are noted by yellow or blue highlighting and assigned a Comment Code as discussed further in Section 1.3 of Volume 3. The “Response” number identifies the section in Attachment A where the comment response is located.

Public comments presented in this Attachment B represent the views of the individual commenters and their affiliation, if identified, as provided to NNSA. The correspondence was not edited and is a copy of the submittal provided by members of the public or an oral transcript for the public hearings and phone messages.

NNSA has not attempted to validate public comments for factual accuracy. Readers should not cite public input as shown in the comments or assume that it is factually accurate.

SPDP Delineation Report

Correspondence #1

From: Wilcox, Ronald
Sent: Monday, December 26, 2022 7:34 AM
To: spd-p-eis@nnsa.doe.gov
Subject: [EXTERNAL] Response to email

[Comment 1-1][Response 27.11] I am Supt. Of Schools in Hampton. We are asking for some of the settlement money you gave other Counties. We are downwind of the plant, the Savannah River runs through our county, and I presume we have citizens who work there. We are building a High School and could benefit from your help. It would be good for your public relations in our County if you could help us. Thanks

Correspondence #2

From: Brittany Burnett
Sent: Monday, January 9, 2023 12:28 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Comments from United Way of the Central Savannah River Area (CSRA)

Good afternoon,
I'm unable to attend the in person meeting later in January, but wanted to go ahead and be sure that you received comments from United Way of the CSRA in writing now. **[Comment 2-1][Response 25.2]** SRNS is a huge community supporter, and we know that this type of mission will continue to have a huge economic impact on our community. SRNS is an

Correspondence

upstanding partner in our region who continues to have a focus on safety for employees, integrity in their mission, and betterment in the communities in which they serve. The entire community benefits from the work that takes place at SRS. We are proud supporters of this mission and please let us know if we can provide any other comments that are helpful to make this vision come to fruition. Thank you-

##Note: Correspondence includes logo for United Way.##

Correspondence #3

From: O'Connor, Tom (NE-HQ)
Sent: Thursday, January 5, 2023 5:52 AM
To: spd-p-eis
CC: Maxted, Maxcine; Alexander, Lynn; Lovejoy, James B; VTR.EIS
Subject: Draft EIS for the SPD Program

Greetings.

[Comment 3-1][Response 7.1] The paragraph below, copied from the subject document needs to be revised to correct factual errors. While VTR did not receive funding in FY 2022 or FY 2023, it did receive funding in prior years totaling \$215,000,000. See requested edits below.

Use of plutonium as feedstock for fuel in the Versatile Test Reactor (VTR) - DOE recently
8 considered the use of surplus plutonium as feedstock for preparation of fuel for the
proposed VTR
9 (DOE 2022b). On July 22, 2022, DOE issued a ROD for the VTR EIS. DOE decided to
construct and
10 operate a VTR at the Idaho National Laboratory Site (87 FR 47400). DOE has not decided
whether to
11 establish VTR driver fuel production capabilities at the Idaho National Laboratory Site,
SRS, or a
12 combination of the two sites. DOE is considering the use of surplus plutonium as
feedstock for
13 preparation of fuel for the VTR (DOE 2022b). However, the VTR is in the early stages of
design, and
14 the details about what facilities, activities, and processes would be required to make
surplus
15 plutonium available as a VTR feedstock are not currently known. DOE has also stated
that if
16 domestic sources of plutonium cannot be made available for VTR fuel production, DOE
has
17 identified potential sources of plutonium in Europe (87 FR 47404, August 3, 2022). In
addition, while
18 Congress has authorized funding for the VTR, *no funding has been provided in fiscal year
2022 or 2023 to date no funds have been appropriated.* Therefore,
19 an alternative that considers VTR as a potential disposition path for surplus plutonium
would be
20 speculative and is premature at this time. If DOE proposes in the future to make a
portion of its
21 surplus plutonium inventory available as feedstock for VTR driver fuel, the VTR Program
would be

22 responsible for any technical activities and process changes that may be necessary to accept this

23 source of feedstock. Any changes to allow use of surplus plutonium as feedstock for VTR fuel

24 production would be the subject of future NEPA analysis.

Please let me know if you have any questions or concerns.

Thanks in advance for correcting the error.

TJO

Thomas J. O'Connor
Versatile Test Reactor Program Director
Office of Nuclear Energy
U.S. Department of Energy

Correspondence #4

From: Mark Stair

Sent: Saturday, January 7, 2023 9:38 AM

To: SPDP-EIS@NNSA.DOE.GOV

Subject: [EXTERNAL] Handling/ transferring of radioactive waste in New Mexico

Greetings!

First...I am not 'anti-nuclear weapons' as we are simply not in that 'kind' of world anymore.

Maybe 'down the road' but..

Secondly,...

[Comment 4-1][Response 27.9] I (a New Mexico resident for nearly 25 yrs) write to express my profound(!) opposition and discomfort with not only the making of more 'new and improved' warheads but also the 'Rube Goldberg-esque', institutionally secretive, approach to the manufacture/ handling/ transferring of radioactive waste from not only LANL but the other facilities nation-wide to the WIPP facility in southern New Mexico. Any new warhead expansion, in my estimation, is provocative and completely unnecessary as simply refining/ upgrading of what is on-hand is sufficient. Put 'the money' into improved delivery systems.

[Comment 4-2][Response 7.4] As for the 'waste issue', it should **stay where it's made** and **not transferred over-road** ...which is, literally, **thousands** of miles past thousands of usually unaware unaware residents (we're working on that!) over multiple states...to southern New Mexico!

[Comment 4-3][Response 27.9] With the proposed increase in manufacturing warhead numbers and the handling of the inevitable waste, will come the **inevitability** of horrible Chernobyl-easque accidents.

[Comment 4-4][Response 17.8] Multiple 'accidents' have already occurred...'spills', equipment failures, gross mishandling for instance. The explosive nature of some waste barrels remain so 'unstable' they cannot be moved as will likely *explode* and *must not be moved* (as essentially '**nuclear** barrel bombs') to WIPP..

Correspondence

in fact, one has exploded and closed WIPP for 3 years! There are currently 10 stored at Los Alamos and '20' at the Texas New Mexican border too 'touchy' to be moved.

There, most assuredly, will be more 'accidents' w/ LANL's 'history'.

[Comment 4-5][Response 23.5] They're here but so are we and you!...must do what is necessary for the public good which means...no further out-of-state transfers/ developing in-place storage, halting increased new warhead/ waste production, use what's on-hand and improve delivery systems and...

stop by-truck/ over-road/ 'from all points' transportation the exposure of residential areas to radioactive waste and halt..

'The **INEVITABLE** Accident'.

Sincerely,

Mark R. Stair (RN, ret.)

Correspondence #5

Transcription of Audio Comment received via Voicemail

Commentor: Jackie Onsurez

Affiliation: Village of Loving City Council

Date & Time Received: 1/16/2023 at 10:08 AM

Hello my name is Jackie Onsurez and I am a councilman with the Village of Loving in New Mexico. **[Comment 5-1][Response 9.3]** We are the closest community to the WIPP department. This is regarding the upcoming public meeting that's gonna be hosted in Carlsbad. My phone number is (505) 209-5115. Ma'am, we, in the Village of Loving, would like to be recognized and included as part of your assessments. We need to have a seat at the table. Please give me a call. I represent the Village of Loving and my name is Jackie Onsurez. My email is jonsurez@gmail.com. Thank you.

Correspondence #6

From: Sharon Rodgers

Sent: Tuesday, January 17, 2023 12:20 PM

To: SPDP-EIS@nnsa.doe.gov

Subject: [EXTERNAL] Surplus Plutonium Disposition Draft EIS Public Comment Period

Attachments: 2023 NNSA Public Hearing Comments.docx

Attached are my comments.

Sharon L. Rodgers

President and CPO

United Way of Aiken County, Inc.

GIVE. | ADVOCATE. | VOLUNTEER. | LIVE UNITED

Surplus Plutonium Disposition Program Final Environmental Impact Statement

United Way of Aiken County
235 Barnwell Avenue NW (29801)
P.O. Box 699 Aiken, SC 29802-0699
Main Ofc 803-648-8331
Fax 803-641-2887
Mobile 803-640-1766
sharon@uwaiken.org www.uwaiken.org

My name is Sharon L. Rodgers, and I am the President of the United Way of Aiken County. I have lived in Aiken County for over forty years.

[Comment 6-1][Response 25.1] I wish to offer my support of the National Nuclear Security Administration's efforts related to its preparation of an Environmental Impact Statement for its Surplus Plutonium Disposition (SPD) program, which will involve disposition of 34 metric tons of weapons grade plutonium at the Waste Isolation Pilot Plant (WIPP) in New Mexico.

[Comment 6-2][Response 5.3] The Savannah River Site (SRS) has a world-class safety culture, and extensive experience in plutonium disposition. There is no site better suited to this mission than SRS. Its workforce is unequalled in attention to detail, safety, and effectiveness and efficiency.

Today SRS continues to make significant progress on both its national defense missions and environmental cleanup commitments. SRS has the secure nuclear materials processing infrastructure, talented workforce and community support to make it uniquely suited to fulfill such an important mission.

[Comment 6-3][Response 27.1] The Savannah River Site has been operating safely in Aiken County for over 70 years. United Way of Aiken County owes its very existence to SRS.

SRS contractors and employees are active and engaged partners in our community. They are our go-to supporters. They are our largest contributors, helping to support 30 partner agencies and 45 critical need programs, benefitting vulnerable seniors, children, disabled, underemployed and people in crisis. They provide the four Ts; Time, Talent, Treasure and Testimony. This past year, 300 volunteers worked at 19 different sites during our day of caring. These volunteers serve as our Board members and committee members. They help support our schools and provide our community with many resources. They are our partners and improve lives in our communities.

[Comment 6-4][Response 5.3] We support the NNSA's proposed disposition plan, and we have full confidence in the SRS workforce to safely and securely complete this mission.

I am honored to support SRS. They care about our community and their mission to make the world safer. Thank you!

Correspondence #7

From: Stuart Barger
Sent: Friday, January 20, 2023 9:27 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program

Correspondence

[Comment 7-1][Response 26.1] This is absolutely the most stupid idea that DOE has ever proposed. It simply boggles the imagination. Keep your waste out of New Mexico. **[Comment 7-2][Response 8.1]** When WIPP was proposed and approved, Senator Pete Domenici promised the people of New Mexico, and I quote, "Diluted plutonium will never be shipped to WIPP." **[Comment 7-3][Response 26.1]** Every DOE staff person involved with this proposal should be fired and held criminally responsible for this action.

Stuart H. Barger
La Puebla, New Mexico

Correspondence #8

From: Joni Arends
Sent: Tuesday, January 17, 2023 6:13 AM
To: the.secretary@hq.doe.gov; jill.hruby@nnsa.doe.gov; spdp-eis
CC: Scott Kovac
Subject: [EXTERNAL] Request from New Mexicans for a two-month extension to provide SPDP DEIS comments

January 17, 2023

The Honorable Jennifer M. Granholm
Secretary, United States Department of Energy (DOE)
James V. Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C. 20585
The.Secretary@hq.doe.gov

The Honorable Jill Hruby
Under Secretary for Nuclear Security
U.S. DOE, National Nuclear Security Administration
James V. Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C. 20585
Jill.hruby@nnsa.doe.gov

Maxcine Maxted
NEPA Document Manager, NNSA
Office of Material Management and Minimization, Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328
Aiken, SC 29802
SPDP-EIS@NNSA.DOE.GOV

Re: Request from New Mexicans for a two-month extension of the February 14, 2023 deadline for Comments to the draft Surplus Plutonium Disposition Program (SPDP) Environmental Impact Statement (DOE/EIS-0549)

Dear Secretary Granholm, Under Secretary Hruby, and NEPA Document Manager Maxted:

[Comment 8-1][Response 9.4] The undersigned New Mexicans and non-governmental

Surplus Plutonium Disposition Program Final Environmental Impact Statement

organizations based in New Mexico request that the United States Department of Energy (DOE) and the National Nuclear Security Administration (NNSA) extend the comment period to provide informed comments to the draft Surplus Plutonium Disposition Program (SPDP) environmental impact statement (EIS). We request a new draft EIS comment deadline of Saturday, April 15, 2023.

The 60-day comment period that currently ends on February 14, 2023 is simply not enough time for the public to make meaningful comments on a proposal as large and as complex and as technical as the draft SPDP EIS, which involves two DOE sites in New Mexico - Los Alamos National Laboratory (LANL) and the Waste Isolation Pilot Plant (WIPP).

This draft EIS is of great national importance because it examines the environmental impacts of dispositioning 34 metric tons of surplus plutonium using capabilities at multiple sites across the Nation. NNSA's preferred alternative would implement a dilute and dispose strategy, which includes processing surplus plutonium to plutonium oxide, diluting it with an adulterant to inhibit plutonium recovery, and disposing of the resulting transuranic waste in the WIPP facility. The draft SPDP EIS analyzes various alternatives that would require capabilities at the Savannah River Site in South Carolina, LANL and the WIPP facilities in New Mexico, the Pantex Plant in Texas, and the Y-12 National Security Complex in Tennessee.

The draft SPDP EIS is a formidable document, with a total of 685 pages, which does not include the referenced documents. This gives an idea of the amount of information analyses that is involved to prepare informed public comments and why more time is needed.

Plus, the scale of operations at Savannah River Site in South Carolina, LANL and WIPP facilities in New Mexico, the Pantex Plant in Texas, and the Y-12 National Security Complex in Tennessee will require much more research than the public may reasonably complete in the next month or so.

Further, it will be very difficult for New Mexicans to make meaningful comments about the draft SPDP EIS in such a short time frame at the same time they are reviewing a draft Hazardous Waste Permit for the Waste Isolation Pilot Plant - a document exceeding 1,100 pages - released by the New Mexico Environment Department (NMED) for public review on December 20, 2022, with comments due by February 18, 2023. Both comment periods began during the winter holidays and end while the New Mexico Legislature is in session.

Thank you for your careful consideration of our request.

Sincerely,

Cynthia Weehler, Co-Chair
The 285 Alliance
Santa Fe, NM

Beata Tsosie, Organizational Director
Navi Pin Haa Un Muu / Breath of My Heart Birthplace
Espanola, NM

Rose Marie Cecchini, MM
Director, Office of Peace, Justice & Creation
Catholic Charities of Gallup

Correspondence

Janet Greenwald
Citizens for Alternatives to Radioactive Dumping
Dixon, NM

Joni Arends
Concerned Citizens for Nuclear Safety
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Anna Rondon, Executive Director
Indigenous Lifeways
Gallup, NM
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Susan Gordon, Coordinator
Multicultural Alliance for a Safe Environment
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Scott Kovac
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Kathy Sanchez
Sayain Program
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Stop Forever WIPP
Albuquerque, NM
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Robert L. Anderson
Stop the War Machine
citizen@comcast.net

J. Gilbert Sanchez

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Tribal Environmental Watch Alliance
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Kenneth Mayers
Major USMCR (Ret'd.)
Veterans For Peace -National Board Member
Veterans For Peace -Santa Fe -Chapter Secretary

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Correspondence

Mara Taub
Santa Fe, NM

L. Watchempino
P.O. Box 407
Pueblo of Acoma, NM 87034

Cynthia Weehler
Santa Fe, NM

Cc:

All Pueblo Council of Governors, via tlchopito@indianpueblo.org
New Mexico Governor Michelle Lujan Grisham, via caroline.buerkle@state.nm.us
New Mexico Attorney General Raul Torrez, via Media@nmag.gov
Members of the NM Interim Radioactive & Hazardous Materials Committee, via
Tom.Kricka@nmlegis.gov

Senator Martin Heinrich, via Jason_Jarvis@heinrich.senate.gov
Senator Ben Ray Lujan, via Graham_Mason@lujan.senate.gov
Representative Teresa Leger-Fernandez, via Matt.Miller2@mail.house.gov
Representative Melanie Stansbury, via Ian.Fluellen@mail.house.gov
Representative Gabe Vasquez
U.S. Senate Armed Services Committee
U.S. House Armed Services Committee

Santa Fe City Council Members, via <https://santafenm.gov/elected-officials>
Santa Fe County Commission Members, via
https://www.santafecountynm.gov/county_commissioners

Joni Arends, Executive Director
Concerned Citizens for Nuclear Safety
P. O. Box 31147
Santa Fe, NM 87594-1147 505 986-1973
www.nuclearactive.org

Correspondence #9

From: Kyle Marksteiner
Sent: Tuesday, January 17, 2023 12:16 PM
To: SPDP-EIS@nnsa.doe.gov; Mayor Office
Subject: [EXTERNAL] Public Comment Submission-Carlsbad Mayor Dale Janway
Attachments: Maxcine Maxted, NEPA Document Manger National Nuclear Security Administration.pdf

Visit us on Facebook at: <https://www.facebook.com/CityofCarlsbadGov/>

Kyle Marksteiner City of Carlsbad -Public Information Officer (575) 706-2324

Maxcine Maxted, NEPA Document Manager National Nuclear Security Administration
Office of Material Management and Minimization Savannah River Site
SPDP-EIS@NNSA.DOE.GOV

Surplus Plutonium Disposition Program Final Environmental Impact Statement

To whom it may concern:

Thank you for the opportunity to comment to the National Nuclear Security Administration regarding the environmental impact statement for the Surplus Plutonium Disposition Program. **[Comment 9-1][Response 4.3]** I support the Proposed Action outlined on page 17 of the document summary, which proposes processing surplus plutonium into plutonium oxide, diluting it to prevent use, and disposing of the resulting CH-TRU waste at WIPP. This is a safe, cost-effective proposal that is better than the proposed alternatives or taking no alternative.

[Comment 9-2][Response 25.1] Members of Carlsbad's nuclear task force have reviewed the NNSA's Draft EIS and believe it to be complete. Additionally, this EIS is one phase of an extensive process that has offered multiple opportunities for public comment. **[Comment 9-3][Response 4.3]** In 2020, the National Academies of Science Committee said the dilute and dispose plan was technically sound. The citizens of Southeast New Mexico understand the efficacy of the dilute and dispose plan, and that disposal in WIPP is viable.

[Comment 9-4][Response 27.1] Carlsbad is proud to be the host community for WIPP, as we understand and enjoy the vital role we share toward national security. We have certainly benefitted from hosting WIPP in terms of job creation and the strong academic presence WIPP has delivered to our community. **[Comment 9-5][Response 8.6]** Of course, the economic benefits would not be worthwhile were the project not handled safely. WIPP has had an exemplary safety record, from transportation through emplacement. We should continue to explore opportunities that will put this excellent facility to good use.

Thank you for the opportunity to comment. We look forward to the public meeting in Carlsbad on Jan. 24.

Sincerely,
Carlsbad Mayor Dale Janway

Ward1
EDDIE T. RODRIGUEZ

Ward2
JEFF FORREST

COUNCILORS

Ward3
KARLA NIEMEIER

Ward4
MAH WALTERSCHEID

Correspondence

Correspondence #10

From: Laura K. Jagles
Sent: Thursday, January 19, 2023 7:13 AM
To: SPDP-EIS@nnsa.doe.gov
CC: Anna C. Hansen
Subject: [EXTERNAL] RE: Santa Fe County's Comments on NNSA's Surplus Plutonium Disposition Program Draft Environmental Impact Statement
Attachments: Santa Fe County's Comments on NNSA SPDP Draft EIS 1-10-2023.pdf

My apologies,

Please see attached.

Thank you and have a great day,

Laura Kaye Jagles
Constituent Services Liaison
County Commissioner Anna Hansen
505-986-6263
see pdf for logo

From: Laura K. Jagles
Sent: Wednesday, January 18, 2023 4:31 PM
To: 'SPDP-EIS@nnsa.doe.gov' SPDP-EIS@nnsa.doe.gov
Cc: Anna C. Hansen ahansen@santafecountynm.gov Subject: Santa Fe County's Comments on NNSA's Surplus Plutonium Disposition Program Draft Environmental Impact Statement

Dear Maxcine Maxted,

The Board of County Commissioners of Santa Fe County submits the following comments on the Santa Fe County's Comments on NNSA's Surplus Plutonium Disposition Program Draft Environmental Impact Statement, published on December 16, 2022.

Contact our office if you have any questions or would like to discuss the comments with BCC Chairwoman, Commissioner Hansen.

Have a great evening,

Laura Kaye Jagles
Constituent Services Liaison
County Commissioner Anna Hansen
505-986-6263

Justin S. Greene
Commissioner, District 1

Anna Hansen
Commissioner, District 2

Camilla Bustamante
Commissioner, District 3

Surplus Plutonium Disposition Program Final Environmental Impact Statement

SANTA FE COUNTY

Anna T. Hamilton
Commissioner, District 4

Hank Hughes
Commissioner, District 5

Gregory S. Shaffer
County Manager

January 10, 2023

The Honorable Jennifer M. Granholm
Secretary, United States Department of Energy (DOE)
James V. Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C. 20585
The.Secretary@hq.doe.gov

The Honorable Jill Hruby
Under Secretary for Nuclear Security
U.S. DOE, National Nuclear Security Administration
James V. Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C. 20585
Jill.hruby@nnsa.doe.gov

Mr. Theodore Wyka
Manager, Los Alamos Field Office
National Nuclear Security Administration
3747 West Jemez Road
Los Alamos, New Mexico 87544
Theodore.wyka@nnsa.doe.gov

Ms. Maxcine Maxted
NEPA Document Manager
U.S. DOE, National Nuclear Security Administration
Office of Material Management and Minimization
P.O. Box A Aiken, SC 29802
SPDP-EIS@nnsa.doe.gov

Subject: Santa Fe County's Comments on NNSA's Surplus Plutonium Disposition Program Draft Environmental Impact Statement

Dear Secretary Granholm, Under Secretary Hruby, LAFO Manager Wyka, and NEPA Document Manager Maxted,

The Board of County Commissioners (BCC) of Santa Fe County submits the following comments on the National Nuclear Security Administration (NNSA) Draft Environmental Impact Statement (EIS) for the Surplus Plutonium Disposition Program (SPDP), published

on December 16, 2022. We appreciate the opportunity to comment on the Draft EIS. Santa Fe County, in particular, would be potentially impacted not only by the transportation of radioactive material, but also by the dilute and dispose process, should the Los Alamos National Laboratory (LANL) be selected for that process.

[Comment 10-1][Response 17.12] The entire proposal, whichever path is chosen, has the potential to put millions of people at risk for financial and health impacts from potential accidents or incidents and dangerous disposal of surplus weapons-grade plutonium and eventually being disposed of in some form at the Waste Isolation Pilot Plant (WIPP), in excess of the 6.2 million cubic feet capacity our nation's only permanent, deep geologic radioactive waste repository. An accident releasing only a small amount of radioactivity could contaminate a 42-square mile area. A Department of Energy (DOE) study found that cleanup could cost \$620 million in a rural area and \$9.5 billion in the most heavily contaminated square mile of a large city.

The geographical scope of the proposal is illustrated below in **Figure S-3** of the Draft EIS summary report. We also have added the general location of Santa Fe to the map for illustrative purposes.

##Note: Correspondence includes an image from the draft EIS summary document. Image shows the states involved in the alternatives. A red line has been added to show the location of Santa Fe.##

[Comment 10-2][Response 23.2] Santa Fe County's approximately 155,000 residents living in close proximity to the transportation corridor needed for the process will be negatively impacted should LANL be selected for any stage of the dilute and dispose process of surplus weapons-grade plutonium. **[Comment 10-3][Response 12.5]** Further, many Santa Fe County residents obtain their drinking water from the Buckman Direct Diversion (BDD) project on the Rio Grande. The BDD is located south of the Otowi Bridge and is subject to contamination from LANL operations that affect Los Alamos Canyon and its tributaries. Increasing flood and storm events in the Los Alamos Canyon watershed are a major source of contaminants to the Rio Grande watershed. **[Comment 10-4][Response 3.1]** In addition, Santa Fe County's northern boundaries are only a few miles from LANL and could be impacted if harmful contaminants were released in the air or ground from failed operations associated with the proposed actions. The Draft EIS must take into account the potential contamination effects that the dilute and dispose surplus weapons-grade plutonium approach may have on the air, water, ecological resources, soils, and residents of the surrounding populations, including the citizens of Santa Fe County. It must also consider the use of resources, including electricity, land use for construction of new facilities, as well as impacts to cultural resources, socio-economic, and on-site and off-site transportation, and impacts as a result of waste generation, storage, and disposal on the Pajarito Plateau.

The U.S. government plans to dispose 34 metric tons (MT) of surplus weapons-grade plutonium under the Plutonium Management and Disposition Agreement (PMDA), which was signed by the United States and the Russian Federation in 2000 and amended in 2010, and the Nonproliferation and Export Control Policy issued by President Clinton in 1993. The U.S. government defines surplus plutonium as plutonium that "has no identified use and does not fall into any of the national security reserved categories." (DOE 2015 Final Surplus Plutonium Disposition Supplemental Environmental Impact Statement, EIS-0283-S2, p. S-1). According to DOE, the U.S. total stockpile of surplus plutonium currently exceeds 60 MT and exists in many forms, including reactor fuel, pits from retired nuclear weapons, used nuclear fuel, and scraps and residues from nuclear weapons production. Id.

As described in the Draft EIS, the SPDP proposes plutonium pit disassembly and conversion using facilities at the Savannah River Site (SRS) and/or LANL), and disposing of the material at the WIPP facility in Carlsbad, New Mexico. The so-called "dilute and dispose" strategy includes processing surplus weapons-grade plutonium to powdered plutonium oxide, diluting it with an adulterant to inhibit plutonium recovery, compressing it, encasing it in containers, and then overpacking and disposing of the resulting contact-handled transuranic (CH-TRU) waste underground at the WIPF in Carlsbad. The 7.1 MT of non-pit surplus plutonium to be sent to the WIPP facility as CH-TRU waste is part of the 34 MT of surplus plutonium proposed for the dilute and dispose program. The various approaches would require new, modified, or existing capabilities at the SRS, LANL, the Pantex Plant in Texas, the Y-12 National Security Complex in Tennessee, and/or WIPP.

NNSA's preferred plan to dispose of the 34 MT of surplus weapons-grade plutonium calls for transporting the plutonium pits to LANL, where it would be converted to oxidized plutonium powder, also known as "downblending", then transported to SRS so the facility can add an adulterant to make it unusable for weapons. The Draft EIS offers possible alternatives, such as doing all the downblending at LANL or SRS to reduce transportation, but it makes clear the original plan is the preferred method. The preferred alternative would include construction and modification activities to expand the existing capability (i.e., DOE's Advanced Recovery and Integrated Extraction System Oxide Production Program) in the PF-4 building located in LANL's Technical Area 55 (TA-55). The construction and modification activities would include the addition of new or modified gloveboxes, material entry hoods, and other upgrades to increase "throughput," or the amount of materials being processed.

Under the No Action Alternative, the 34 MT of surplus plutonium would continue to be stored as surplus plutonium pits at Pantex, LANL would process up to 400 kg of actinides (including surplus plutonium) per year, and non-pit surplus plutonium up to 7.1 MT would be disposed at the WIPP facility. LANL currently processes up to 400 kg of actinides a year within their Advanced Recovery and Integrated Extraction System (ARIES) capability.

Santa Fe County has the following comments and concerns regarding the Draft EIS for the Surplus Plutonium Disposition Program.

[Comment 10-5][Response 4.2] • Dilute and Dispose Process Is Unproven. While the downblending process has been used on a small level, ramping up the complete process to the scale proposed in the Draft EIS has not been proven to be possible, safe, or effective. All of the steps described in the dilute and dispose plan do not appear to have been sequentially demonstrated from start to end, posing a risk because even proven methodologies run into unforeseen problems.

[Comment 10-6][Response 21.2] • Dilute and Dispose Process Would Increase Radioactive Waste. The dilute and dispose process would increase the quantity of other radioactive and hazardous waste, as it would require installing more glove boxes -the sealed compartments that allow workers to handle radioactive materials -and other equipment to complete the process.

[Comment 10-7][Response 7.5] • Limit Dilute and Dispose to the Same Location. Provided the dilute and dispose strategy is scientifically proven as effective and safe, the process should be limited to one location - the Pantex facility - to prevent trucking the material to multiple locations across thousands of miles. The Draft EIS rejects considering this alternative. Page 2-25. Surplus weapons-grade plutonium should remain secured at or near the site of generation and transported only once, if necessary. It must not involve unnecessary risks to communities. Radioactive material has been historically

stored at the Pantex facility since the 1970s. https://pantex.energ.gov/sites/default/files/AbOLtt_Pantex.pdf

[Comment 10-8][Response 5.5] • LANL's Track Record of Nuclear Safety Incidents. With respect to LANL's role in the process, LANL has had nuclear safety incidents that have forced a three-year suspension of major operations at LANL's main plutonium facility. Over the past 10 years, glove box incidents have occurred with frequency, exposing workers to plutonium and other hazardous contaminants, according to LANL studies and Defense Nuclear Facilities Safety Board (DNFSB) reports. LANL, with oversight from NNSA and DNFSB, must successfully demonstrate that it can successfully, safely and consistently complete its responsibilities under the dilute and dispose process.

[Comment 10-9][Response 8.3] • WIPP Should Not Be Over Used or Used Beyond Its Intended Purpose. Increased plutonium pit production currently proposed for LANL, combined with the proposed dilute and dispose program, will result in yet more generations of plutonium contaminated radioactive wastes that NNSA believes it may dispose of in the already oversubscribed (WIPP). Because existing structures are not designed to store the large amounts of pits and waste materials, these factors should be considered and resolved prior to ramping up production. Additionally, in 2020, the DNFSB noted that LANL "does not adequately analyze energetic chemical reaction hazards involving transuranic waste," such as the improperly prepared radioactive waste drums from LANL that ruptured in 2014 and contaminated and closed the WIPP for nearly three years. Further, while WIPP has stored limited quantities of classified TRU waste in the past, the U.S. Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) may limit waste volumes through the size limitation of the underground waste panels. An inability of WIPP to accept and store TRU wastes could disrupt the dilute and dispose program. Future accidents resulting in lengthy shutdowns, such as those that occurred in 2014 due to a salt truck fire and an unrelated radiological release event underground, pose a risk to access for the dilute and dispose programs.

[Comment 10-10][Response 23.2] • Concerns Over Transportation of surplus weapons-grade plutonium. Transporting plutonium-contaminated radioactive waste for the purpose of the Surplus Plutonium Disposition Program would unnecessarily increase risks of accidents and terrorism activity along the proposed 3,300-mile route from Pantex to LANL to SRS. There has never been such a large scale shipping campaign, and communities along the transportation routes have many well-founded concerns.

[Comment 10-11][Response 22.3] • Environmental and Social Justice Impacts on Frontline Communities. DOE plans to spend \$9.4 billion in FY 2023 in New Mexico (71% for core nuclear weapons research and production programs), substantially greater than the State's entire budget of \$8.5 billion. The inequitable economic impacts of such funding must be thoroughly evaluated, recognizing that New Mexico ranks 49th in the percentage of people who have incomes below the poverty line, 50th in pre-K to 12th grade education, and 50th in child well-being.

[Comment 10-12][Response 3.3] • Monitoring and Inspections. The PMDA requires international monitoring and verification of the dispositioned surplus plutonium. It is not clear whether a monitoring and verification plan for the waste has been established. NNSA should clarify their intent with respect to whether there will be national and international monitoring and inspections for this material.

[Comment 10-13][Response 9.1] • More DOE, EPA, and NMED Vetting. The EPA, the Department of Energy, and NMED should engage in developing a mutually agreed-upon

strategy for vetting the effects of the dilute and dispose inventory at LANL and at WIPP. This should occur before committing the substantial resources that will be needed to implement an integrated dilute and dispose program.

[Comment 10-14][Response 9.7] • Need for a New Comprehensive Programmatic Environmental Impact Statement (PEIS). Prior to finalizing the SPDP EIS, we agree with the National Academies of Science, Engineering, and Medicine that DOE should implement a new comprehensive programmatic environmental impact statement (PEIS) to consider fully the environmental impacts of the total diluted TRU waste inventory (up to an additional 48.2 metric tons) targeted for dilution at SRS or LANL and disposal at WIPP. Given the scale and character of the diluted surplus plutonium inventory, the effect it has on redefining the character of WIPP, the involvement of several facilities at several sites to prepare the plutonium for dilution, a schedule of decades requiring sustained support, and the environmental and programmatic significance of the changes therein, a PEIS for the whole of surplus plutonium that considers all affected sites as a system is appropriate to address the intent and direction of the National Environmental Policy Act (NEPA) and would better support the need for public acceptance and stakeholder engagement.

[Comment 10-15][Response 27.11] • Environmental Evaluation Group. If the dilute and dispose plan moves forward, DOE should reinstate funding for the independent Environmental Evaluation Group (EEG), representing the concerns of New Mexico and other stakeholders.

[Comment 10-16][Response 5.5] In conclusion, our lives, land, and aquifers must be protected from radioactive contamination, which could result from accidents, radiation releases or leaks, or terrorist actions during the surplus weapons-grade plutonium shipments that would occur under the existing and proposed programs. **[Comment 10-17][Response 9.3]** Local stakeholders, such as the County, must be engaged early and as often as possible to ensure that decisions are being influenced by those who will be affected by them. The impact of including local governments with their boots on the ground experience is invaluable to minimizing the long term impact of the proposed plan and for potential community buy-in.

Respectfully,

Anna T. Hamilton, Chair
Board of County Commissioners for Santa Fe County

Commissioner Anna Hansen, Santa Fe County, District 2
505-920-0957 mobile

This letter has been sent to:

Governor Michele Lujan Grisham
Senator Martin Heinrich
Senator Ben Ray Lujan
Congresswomen Teresa Leger Fernandez, Melanie Stansbury, and Gabriel Vasquez
Speaker of the House of Representatives of New Mexico
Leader of the New Mexico Senate Peter Wirth
Members of the NM Interim Legislative Radioactive & Hazardous Materials Committee
Governor of San Ildefonso Pueblo
Governor of Tesuque Pueblo
Governor of Nambe Pueblo

Correspondence

Governor of Cochiti Pueblo
Governor of Pojoaque
Governor of Santa Clara
Governor of Zia
Governor of Kewa Governor of San Felipe
All Pueblo Council of Governors
U.S. Senate Armed Services Committee
U.S. House Armed Services Committee

102 Grant Avenue P.O. Box 276 Santa Fe, New Mexico 87504-0276 505-986-6200
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Correspondence #11

##Note: Correspondence includes logo.##

Veterans For Peace
Donald and Sally-Alice Thompson Chapter #63
Albuquerque, New Mexico

John E. Wilks, 111
Vice President, VFP Chapter #63 (Albuquerque)
1115 Republic Road
Winston, NM 87943

January 7, 2023

Ms. Maxcine Maxted
NEPA Document Manager
U.S. Department of Energy/ National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328 Aiken, SC 29802

RE: Public Comment on Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program (SPDP EIS) (DOE EIS-0549)

Dear Ms. Maxted:

This public comment, pursuant to the National Environmental Policy Act (NEPA), is timely filed prior to the end of the filing period on February 14, 2023.

[Comment 11-1][Response 2.2] We take exception to the statement contained in the introduction of the Summary document with respect to the Notice of Intent (NOI) published by the Department of Energy (DOE) on December 16, 2020. We believe the actual purpose of this NEPA exercise is not only to evaluate the potential environmental impacts of disposition of only 34 metric tons (MT) of surplus plutonium, as noted on page iii, but rather the entire 61.5 MT of surplus plutonium (Pu-239 and Pu-240, no matter how configured), as described on page S-1 of the document.

THE SCOPE OF THE DISPOSITION CHALLENGE

As depicted on page S-2, since 1994, the total tonnage of surplus plutonium has increased greatly. There is good reason to believe that the quantity will continue to increase while the nuclear arsenal is reviewed and maintained. In 1994, 52.5MT were declared surplus, followed in 2007 with another 9 metric tons (MT). Although the United States previously pledged to the Russian Federation that it would dispose of 34MT, the United States is not now precluded from disposing of the remaining 27.5MT by using the same methodology that flows from a protocol made pursuant to this NEPA exercise. Accordingly, our comment will incorporate concerns over the advisability and feasibility of handling any plutonium in this proposed disposal disposition.

Note: In 2020, the National Nuclear Security Administration (NNSA) issued a Supplemental Analysis for Disposition of Additional Non-Pit Surplus Plutonium (DOE 2020a). Further, on August 28, 2020, NNSA amended its previous decision contained in the Amended Record of Decision (AROD) for the SPD EIS (68 FR 20134) of 2003 to include preparation of an additional 7.1MT of non-pit surplus plutonium for disposal, as contact-handled (CH) transuranic (TRU) waste, at the Waste Isolation Pilot Plant (WIPP) (85 FR 53350). Because the alternatives identified in this document by DOE address the disposition of 41.1MT (the combined total of 34MT and 7.1MT), it appears to us that DOE/NNSA may actually be planning to transform, transport, and deposit into the WIPP the entire 61.1MT plus 0.4 = 61.5MT, as well as additional plutonium declared surplus in the near-term. We also understand that while the multi-decade clean-up efforts at the Hanford Reservation, the Idaho National Laboratory, and Rocky Flats Environmental Technology Site continue, as well as the demolition of selected structures gets underway preceding the build-out of the Lawrence Livermore National Lab, it is highly likely that additional plutonium will be identified, declared surplus, and rendered subject to any protocol that stems from a decision made as a result of this disposition discussion.

PAST PRACTICE DOES NOT ESTABLISH A PATTERN OR SET A PRECEDENT

[Comment 11-2][Response 8.1] We believe that the past abuse of the WIPP admission standards by DOE, during the disposal of adulterated plutonium oxide mixture, "down blended plutonium," does not give DOE license to continue this non-compliant conduct! The circumstances behind DOE's failure to adequately supervise its contractor at the Rocky Flats Plant, which led to the sudden shut-down of the facility by the US Department of Justice, resulted in the unfortunate deposit of waste, represented as CH-TRU, into the WIPP. Remarkably, the dilute and dispose strategy was also evaluated as a viable approach for disposition of 13.1MT of surplus plutonium in the SPD Supplemental EIS (2015 SPD SEIS: DOE 2015). The strategy was selected and is currently being used to disposition 6MT of non pit surplus plutonium (81 FR 19588) and 7.1MT of non-pit surplus plutonium (85 FR 53350).

SUPLUS PLUTONIUM PER SE IS INELIGIBLE FOR ADMISSION TO THE WIPP

[Comment 11-3][Response 8.1] **Definition:** Transuranic (TRU) waste is defined by The Waste Isolation Pilot Plant Land Withdrawal Act, in Section 2 (18) as "waste containing more than 100 nano curies of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than 20 years, except for (A) high-level radioactive waste; (B) waste that the Secretary has determined, with the concurrence of an Administrator, does not need the degree of isolation required by the disposal regulations; or (C) waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with part 61 of title 10, Code of Federal Regulations."

Historically, the nano curie threshold has been extended to 200, yet now it is stated by DOE as 380 nano curies. Plutonium oxide as a stand alone substance, in any strength, has never been legally admissible to the WIPP.

Discussions: During the earlier discussions and negotiations between the federal government and the State of New Mexico regarding the siting of the WIPP, US Senator Peter Domenici explicitly stated that a condition of accepting the pilot plant was an absolute prohibition of down blended plutonium into the WIPP. Congress in 1992, prior to the existence of "surplus plutonium/" established the legal regulatory limits and definitions regarding the WIPP. The term "surplus plutonium" did not appear in the Land Withdrawal Act because the term was not coined until 1994, when the initial batch of waste was characterized.

Agreement: A covenant between the people of New Mexico and the federal government was forged and publicly announced by the state in 1992. The state's federal delegation and the governor represented to the voters in New Mexico that by accepting the WIPP, Congress would legislate, among other provisions and protections, that only contaminated expendable clothing, tools, and equipment containing only trace amounts of plutonium, in low-levels of radioactivity, but not plutonium, in either solid metal or powder form, would be transported on the local roads and placed in the WIPP. Down blended plutonium, of pit or non-pit origin, was never intended for deposit into the WIPP.

EXPAND THE LIMITED ALTERNATIVE COURSES OF ACTION

The scoping period has ended. **[Comment 11-4][Response 5.5]** Nevertheless, the preferred alternative and each of the four sub-alternatives are unacceptable due to the extreme safety risk they all pose to government employees, contractors, the public, and the environment.

Each of the alternatives involves significant expenditure of funds and the construction of facilities for transformation and processing of the plutonium, and all are therefore totally unacceptable. It is incumbent on the government to seek cost saving options for this endeavor.

Los Alamos National Laboratory Option -Unsafe and Too Costly

[Comment 11-5][Response 5.5] Due to overriding safety deficiencies and concerns at Los Alamos National Laboratory (LANL), the disposition of surplus plutonium shouldn't involve LANL. As demonstrated by the site inspection inside the plutonium fabrication building (PF-4) on November 8, 2021, and disclosures and discussions at the public board meeting of the National Nuclear Safety Board in Santa Fe on November 9, 2021, LANL is unsafe, considering the threat of wildfires, seismic activity, shoddy construction, poor building maintenance, existing fire hazards, poor evacuation planning and capabilities, and inherent flaws in the aged, decrepit building that is being re-purposed while occupied. In all these substantive areas of concern and inspections, LANL is substandard, lacking, or failed. Further, the structure in which much or some of the surplus plutonium reconfiguration is proposed to occur (PF-4) is structurally unsound. Also concerning is that within this 44- year-old building, concurrently newly hired staff is in training, contractor upgrade of the building is in progress, and preliminary pit production is underway. Adding a mission of transforming tons of surplus plutonium in PF-4 or anywhere else on the Los Alamos campus would be infeasible, ill advised, and reckless. In addition, there would be no possibility of expanding the list of alternative actions.

[Comment 11-6][Response 24.2] The Preferred Alternative identified in the EIS is

too costly and could interfere with the frantic construction efforts to convert LANL from a laboratory to a nuclear weapons plant. **[Comment 11-7][Response 10.1]** The proposed facility footprint-or area in square feet to accommodate storage, parking, offices, docks-package would be intrusive and excessive. Technical Area 55 would allocate 1787,520 sq. ft.; 90,610 sq. ft. would be needed in Technical Area 52. Although the same space allocation may be necessary at Savannah River Site (SRS), LANL is located on a mesa, which precludes expanding the campus. In contrast, SRS has the capability of expanding its operational base.

[Comment 11-8][Response 7.4] The list of alternatives should be expanded by adding at least one additional option. The most efficient and expeditious method of moving surplus plutonium from all waste generation sites outside of Texas would be to aggregate all waste at the Pantex Plant. To minimize the risks and expense involved with transporting the plutonium across the country twice, the surplus should subsequently be shipped by the Pantex Plant directly to SRS. The LANL should not be involved in transforming any surplus plutonium. All transformations and adulterations should be performed in K-Area, Building 105-K or in a modular system adjacent to the building, at SRS. The product should remain at SRS until a permanent repository for down blended plutonium is established by DOE. An added advantage of transforming the surplus plutonium at SRS is elimination of the cost of packaging and transporting the down blended product to the WIPP.

THE NEW STATE-ISSUED PERMIT WILL BE HIGHLY RESTRICTIVE

[Comment 11-9][Response 8.2] The operational permit for the WIPP expired nearly three years ago. In 2023, the New Mexico Environmental Department will issue a permit, effective for ten years or less, which will prioritize admissions of legacy waste shipments from LANL. Further, it is anticipated that points of origin will be limited to forwarding quantities of waste greater than those of LANL. Because the WIPP is oversubscribed by waste already identified to the WIPP contractors, it is possible that newly generated waste will be accommodated at the WIPP prior to closure in July 2024. **[Comment 11-10][Response 7.4]** Because all of the alternatives identified in the surplus plutonium EIS involve the construction of facilities to transform and process the waste, it would be advisable for DOE/NNSA to consider electing to ship the surplus product directly from Pantex to SRS and planning on identifying an interim storage facility on the SRS for the down blended plutonium.

THE WIPP WILL CLOSE IN JULY 2024 OR SOON THEREAFTER

[Comment 11-11][Response 8.2] We take great exception to S.5.1.2.4 "Waste Isolation Pilot Plant" (found on page S-26 of the EIS Summary). The current permit considerations render assumptions made in 1997 very tenuous. In paragraph two, the EIS states, "Activities following the transportation of the CH-TRU waste to the WIPP, including receiving, unloading, and waste transfer and disposal, as described and analyzed in the Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement (DOE 1997/ Section 3.1.3), are not reevaluated in this document."

Under the original agreement between the federal government and the State of New Mexico, the WIPP will close in July 2024, 25 years after accepting its first waste shipment. Additionally, the WIPP is currently 41% full. There is enough legacy (1943-2020) waste in Areas "G" and "C" in Technical Area 54 at LANL to almost fill the remaining space of the WIPP. Also, in accordance with the Land Withdrawal Act, the WIPP may not be expanded beyond 6.2 million cubic feet of storage space. The WIPP is oversubscribed by the legacy waste nationwide that may fill the rooms already mined in the WIPP. Under the agreement siting the WIPP in New Mexico, no additional rooms may be mined or expanded beyond those currently permitted by the New Mexico Environmental Department.

Correspondence

BULK SHIPMENTS OF PLUTONIUM ARE NOT ACCEPTABLE FOR EMPLACEMENT IN THE WIPP

[Comment 11-12][Response 4.2] It is apparent that the current proposal that is the subject of this EIS is yet another plan to circumvent the WIPP acceptance guidelines established in 1992. Page S-27 of the Summary, Table S-7, "Alternative Considered and Dismissed in the S&D Programmatic EIS," bears a "Disposition Alternative" that reads, "Dispose surplus plutonium at the WIPP facility." The "Reason for Dismissal from Detailed Study" was,

"Regulatory concerns. Assumed that this option would exceed capacity at the WIPP facility and would require amendment of the Waste Isolation Pilot Plant Withdrawal Act, associated regulations and regulatory compliance documents and the planning basis for the WIPP WAC."

It appears that DOE/NNSA is attempting to merely dilute that same surplus plutonium to circumvent the legislative intent of the Land Withdrawal Act and the 1992 Covenant between the federal government and the people of the State of New Mexico. If true, such a scheme is shameless, insulting, and unacceptable!

Respectfully submitted,

John E. Wilks, 111
Vice President, Chapter #63 (Albuquerque)
Veterans For Peace

Correspondence #12

From: Joni Arends
Sent: Tuesday, January 24, 2023 7:34 AM
To: the.secretary@hq.doe.gov; jill.hruby@nnsa.doe.gov; spdp-eis
CC: Scott Kovac Subject: [EXTERNAL]
Re: Request from New Mexicans for a two-month extension to provide SPDP DEIS comments

Good morning,

[Comment 12-1][Response 9.3] As we prepare for the SPDP hearings in Carlsbad this evening and Los Alamos on Thursday evening, we would appreciate a response to our request for a two-month extension of time to provide informed public comments at your earliest convenience.

In the meantime, snow and ice is predicted for Thursday evening in Los Alamos. Downwind and downstream community members will be hesitant to travel up the hill for Thursday's public hearing. We understand DOE/NNSA will be holding a briefing in Santa Fe soon. We would appreciate DOE/NNSA to change the briefing into a public hearing, as originally requested by Santa Fe County Commissioner Anna Hansen.

DOE/NNSA may respond that on Monday, January 30th a virtual meeting will be held. We are concerned that in the event of snow and ice in Los Alamos on Thursday night, more people will participate in the virtual meeting. If there are more people wanting to make comments, inevitably DOE/NNSA will limit the amount of time for each speaker. This is another reason for the briefing in Santa Fe to be changed into a public hearing.

Thank you in advance for your prompt response so that we may communicate the suggested changes to our members at the earliest opportunity.

Best,

Joni Arends
Concerned Citizens for Nuclear Safety
Santa Fe, NM
505 986 1973

##This correspondence also included forwarded language from correspondence received on 1/17/23 and is captured in Correspondence #8.##

Correspondence #13

From: Kyle Marksteiner
Sent: Tuesday, January 24, 2023 9:56 AM
To: SPDP-EIS@nnsa.doe.gov
CC: Roger Nelson; Commissioner Jack Volpato
Subject: [EXTERNAL] Carlsbad Mayor's Nuclear Task Force Position Paper
Attachments: NNSA EIS -Surplus Plutonium D&D at WIPP.docx

Good morning: I have been instructed to submit this on behalf of the community members of the Carlsbad (N.M.) Nuclear Task Force. This is an ad hoc committee which advises the Carlsbad Mayor and other elected officials. Members may be also making or submitting additional comments as individuals. Thank you.

Visit us on Facebook at: <https://www.facebook.com/CityofCarlsbadGov/>

Kyle Marksteiner
City of Carlsbad -Public Information Officer
(575) 706-2324

Comments on 2022 NNSA Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program Primary Author: Roger Nelson

[Comment 13-1][Response 8.6] The Carlsbad (N.M.) Mayor's Nuclear Task Force strongly supports NNSA and DOE plans to eliminate the need to safeguard the nation's surplus weapons grade plutonium by final disposal of adulterated TRU waste in WIPP. Deep geologic disposal in salt will undisputedly isolate it from the biosphere essentially forever. Citizens in southeast New Mexico understand that disposal in WIPP is actually permanent. Moreover, WIPP has proven that transport of TRU waste across the nation and emplacement in the underground is safe, and cost effective. This is in contrast to expensive and highly engineered storage or transformation facilities, which would still require safeguards in perpetuity.

WIPP is located in the great State of New Mexico, the birthplace of the nuclear age. While nuclear weapon development unfortunately heralded that birth, it still maintained world peace since its inception. NNSA inherently understands that nuclear weapons have become

the single most stabilizing deterrent to aggression, relied on by many nations around the world. However during the cold war of the last half century, America's inventory of plutonium grew much greater than anticipated, or even needed. America now is setting an example that **"enough is enough"** when it comes to nuclear weapons. America is permanently eliminating that surplus inventory, and it is fitting that it returns to its metaphorical birthplace. Carlsbad citizens recognize the patriotic importance of hosting WIPP, as the final resting place for the surplus plutonium.

While the Task Force supports the dilute and dispose plan, there are several key points that should be made concerning the NEPA action currently underway. The following comments are offered on the draft EIS. We hope they will help NNSA make the best choice among the alternatives offered.

Comment 1:

[Comment 13-2][Response 5.5] Since over 50 MT of plutonium was declared surplus to the Nation's nuclear deterrent in 1994 (enough for >6000 nuclear weapons), DOE and NNSA have studied many methods and prepared several NEPA reviews to evaluate alternative means of assuring that surplus plutonium would never again be used for nuclear weapons. In its final choice, NNSA has focused on mature methods and proven technologies that are based on processes requiring minimal research and engineering development and **NO** new facility capabilities or significant modifications. Thus, the *"SRS NPMP Sub-Alternative"* and *"All-SRS Sub-Alternative"* clearly should be rejected because existing facilities at LANL and SRS are already adequate to achieve mission success. Both of these Sub-Alternatives would require extensive new facilities and capabilities at SRS, and would incur significant delay in beginning processing of surplus Pu for disposal at WIPP. Funding for any new SRS facilities would also be hostage to an uncertain future legislative agenda.

[Comment 13-3][Response 5.4] That leaves only the *"All LANL Sub-Alternative"* and the *"Preferred Alternative"* as the remaining viable choices. But while only minimal facility upgrades at LANL would be needed for the *"All LANL Alternative"*, the downside is that it would maximize the number of TRU waste shipments through northern New Mexico. It is important to remember that pit shipments from Pantex to LANL, and oxidized Pu shipments from LANL to SRS will use *"Secure Safe Transport"* (SST), and will be classified.

Just like the many thousands of SST shipments that have safely and secretly crisscrossed the nation over the past 50 years in support of national defense, these shipments to and from LANL would never be known to the public, the state, or the rest of the world. Thus, the *"All LANL Sub-Alternative"* should be considered less preferred by northern New Mexicans than the Preferred Alternative. The Preferred Alternative minimizes the number of TRU waste shipments (by far) to WIPP that would traverse northern New Mexico, thereby ameliorating the outcry of critics in northern New Mexico. Other than a few TRU waste shipments of "job control" waste from LANL to WIPP, the vast majority under the preferred alternative will be from SRS to WIPP along the southern route, and never traverse northern New Mexico. This comment strongly supports the Preferred Alternative.

Comment 2:

[Comment 13-4][Response 8.6] NNSA already evaluated the preferred alternative in its 2015 SPD SEIS, and decided to use the process to prepare 6 MT of non-pit surplus plutonium for disposal as CH-TRU waste at the WIPP facility. This campaign has already begun, and TRU waste shipments from surplus non-pit Plutonium from SRS have already been routinely emplaced in WIPP. NNSA has also decided to use the same process to prepare an additional 7.1 MT of non-pit surplus plutonium for disposal as CH-TRU waste as described in its 2020 Supplement Analysis, and which is again being analyzed in its 2022

draft SPDP EIS as part of the 34 MT of surplus plutonium considered in the draft EIS. Since the 7.1 MT of non-pit surplus plutonium is identical to the 6 MT waste stream already being emplaced in WIPP, there will not be any additional impact beyond the greater number of shipments from SRS to WIPP along the southern route.

Also, the additional 7.1 MT will not impact WIPP's volume capacity, which is legislated at 6.2 million cubic feet. This additional 7.1 MT, shipped as TRU waste in about 550 shipments, will only add about 10,000 cubic feet, which is well within WIPP's capacity. The entire 34 MT (including the 7.1 MT of non-pit material) will only add about 2500 shipments to WIPP, compared to over 12,000 shipments already safely shipped and emplaced to date. This comment supports the addition of 7.1 MT of non-pit plutonium as part of the surplus plutonium disposition plan.

Comment 3:

[Comment 13-5][Response 8.6] It is difficult to see how WIPP's New Mexico State regulator, the NM Environment Department (NMED), could be opposed to, or even question any of the alternatives for dilution and disposal of surplus plutonium. Whether non-pit or pit plutonium feed material, the very-high temperature furnace process to convert it to oxide does not introduce or allow any remaining hazardous material, thereby ensuring it is not "mixed" waste. The subsequent dilution process combines the plutonium oxide with an adulterant that contains only nonhazardous inorganic materials to form a chemically stable matrix suitable for final disposal as non-mixed waste. The multi-component adulterant is designed to impede any possible future clandestine recovery of the surplus plutonium, thereby making the waste form compliant with DOE requirements for termination of safeguards. While the NMED hazardous waste permit for WIPP gives it authority to regulate any waste disposed of at WIPP as if it were "mixed" waste, the adulterated final form surplus plutonium is clearly not "mixed". However, NNSA is proposing to characterize each final waste container according to the waste acceptance criteria enforced by NMED. While arduous and unnecessary to protect human health and the environment under RCRA, NNSA should be commended for going this extra mile to ensure, and demonstrate all surplus plutonium will meet the WIPP hazardous waste permit requirements, along with even requiring NMED approval of the waste stream certification process.

Comment 4:

[Comment 13-6][Response 18.1] Previous studies (e.g., the Red Team Report of 2016) showed the efficacy and cost efficiency of the D&D alternative. But few (if any) have discussed diversion to recover the Plutonium in a way that could go undetected as part of the dilute and dispose plan. Given NNSA's concern over non-proliferation of nuclear materials, the 2022 draft EIS is largely silent on the diversion likelihood across any of the alternatives presented. Diversion potential during the dilution step (treatment by adulteration), packaging (safeguards termination), and shipment to the WIPP site should be shown to not be credible across each alternative and considered as a factor in choosing a final alternative. Once at WIPP, D&D surplus plutonium, packaged and shipped as TRU waste, would be unloaded and emplaced underground, along with other TRU waste generated at other DOE sites. Undetected diversion during this receipt and emplacement phase should also be shown to not be credible. It is recommended that such arguments be based on accepted international inspection protocols, including the possibility of material accountability assays before and after shipment, and the use of tamper indication and radio frequency identification devices. Arguments against clandestine proliferation of even small amounts of the adulterated waste form, either by insider or external threats, should be included, and considered in making a final decision.

Correspondence

All action alternatives face the possibility of intentional recovery of D&D Plutonium after WIPP disposal operations have ended, and the facility has been decommissioned, whether by malevolent actors or even host state diversion. NNSA should analyze the physical, chemical and radiological barriers to diversion and proliferation by deep geologic disposal under the collective D&D alternatives, versus the no-action alternative. It is also prudent for NNSA to show that diversion and proliferation risks of disposal in WIPP may be comparable to those that would result from imposing a "spent fuel standard". This would buttress NNSA arguments against the no-action alternative. Arguments about the irreversibility of geological disposal would also enhance all action alternative's credibility.

Comment 5:

[Comment 13-7][Response 3.3] In 2020, the National Academy of Science conducted a review of Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant. Recommendation 5-1 from that review was "Plans for the International Atomic Energy Agency (IAEA) or other monitoring and inspection protocols have not yet been established for the disposition of the surplus plutonium as diluted TRU waste in WIPP. DOE or NNSA should clarify their intent with respect to whether there will be IAEA monitoring and inspections". This comment agrees that NNSA should describe plans or alternatives to IAEA involvement with the proposed alternatives. While it is understood that NNSA cannot predict future negotiations with IAEA, involvement by IAEA in each alternative could weigh heavily on success. The NNSA EIS should at least acknowledge the role IAEA may play in how each alternative could transpire. Even better, NNSA should describe how it has already engaged IAEA, and project how IAEA will likely be involved in each alternative.

Comment 6:

[Comment 13-8][Response 8.2] In 2020, the National Academy of Science conducted a review of Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant. Recommendation 3-1 was "Capacity at the Waste Isolation Pilot Plant (WIPP) should be treated as a valuable and limited resource by DOE. DOE must prioritize national security mission waste streams for WIPP (i.e., surplus pit and non-pit waste). Because emplacement in WIPP is critical to both DOE's Office of Environmental Management's and NNSA's dilute and dispose plans, the DOE and NNSA Administrator should prioritize and reserve Land Withdrawal Act capacity in WIPP for the full amount of diluted surplus plutonium TRU waste". This comment reinforces the NAS recommendation 3-1. The EIS should describe a clear understanding of how NNSA and DOE EM (i.e., Carlsbad Field Office) will work together to ensure surplus plutonium waste streams and EM legacy and newly generated TRU waste streams will be balanced to accept a volume within the disposal capacity limit legislated for WIPP. This issue extends beyond the NEPA process that NNSA is currently conducting. WIPP is also in the middle of its 10-year hazardous waste permit renewal. The New Mexico Environment Department recently issued a draft permit that would require WIPP permittees to annually report how future TRU waste shipments would not exceed the legislated WIPP capacity. The NNSA surplus plutonium dilute and dispose EIS could and should include a discussion of how NNSA and DOE EM (i.e., CBFO) will work together to ensure and prove that WIPP's legislated disposal capacity will not be exceeded by including the 34 MT of surplus plutonium as diluted TRU waste.

Thank you again for the opportunity to comment. **[Comment 13-9][Response 8.6]** The Carlsbad Mayor's nuclear Task Force strongly supports the preferred alternative of the Waste Isolation Pilot Plant.

Correspondence #14

Surplus Plutonium Disposition Program Final Environmental Impact Statement

From: Sue Parr
Sent: Tuesday, January 24, 2023 12:06 PM
To: SPDP-EIS@nnsa.doe.gov
CC: Angie Martin
Subject: [EXTERNAL] NNSA Draft EIS Comment from Augusta Metro Chamber
Attachments: Ltr_NNSA_EIS Comment 012423 Augusta Metro Chamber.pdf

Good afternoon -

Please accept the attached communication for your record regarding NNSA's Draft EIS for its SPD Program.

Thank you, Sue Parr

Sue Parr, IOM, GCCE
President/CEO
Augusta Metro Chamber of Commerce

706 821 1313
One Tenth Street Suite 120
Augusta, Georgia 30901
AugustaMetroChamber.com

##Note: Correspondence includes author picture and company logo.##

The Chamber
AUGUSTA METRO CHAMBER OF COMMERCE

January 24, 2023

Ms. Maxcine Maxted,
NEPA Document Manager
U.S. Department of Energy/National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328 Aiken, SC 29802

Ms. Maxted:

The Augusta Metro Chamber supports economic growth and quality of life for the residents of the greater Metro Augusta Region. Since the beginning of the Department of Energy's Savannah River Site (SRS) nearly seventy years ago, it has been a major factor in growing our region. This continues today and the Augusta Metro Chamber of Commerce (AMCC) is keenly interested on behalf of its membership of 1,200 organizations throughout the region in the future missions and activity at the site. Therefore, we would like to provide comment on the NNSA's draft Environmental Impact Statement (EIS) for its Surplus Plutonium Disposition (SPD) program.

[Comment 14-1][Response 5.3] First, we applaud NNSA's commitment to finding a path forward for 34 MT of weapons grade plutonium originally designated for disposal through the MOX facility. Even though SRS is located in the State of South Carolina, we are not bystanders in the state's interests in removing this nuclear material from our region. Decisions regarding its disposition affect our entire 2-state area and we appreciate the

Correspondence

NNSA's commitment to finding a solution.

[Comment 14-2][Response 4.3] Second, the preferred method to dilute and dispose of this material will safely and securely ensure it cannot be used in nuclear weapons. This important national priority must be executed despite the MOX project being cancelled in 2019.

[Comment 14-3][Response 5.3] Third, the scope of work outlined in the draft EIS is highly compatible with the existing talent, infrastructure and community commitment SRS has had for 70 years in the safe handling of nuclear material. SRS has the experience and safety record for the downblending production process, and has proven its ability to execute this mission by successfully completing its first shipment of downblended material to WIPP late last year.

Thank you for the opportunity to provide comment. **[Comment 14-4][Response 5.3]** We do not feel that there will be any negative environmental impacts with the proposed scope of work and urge NNSA to move forward.

Susan E. Parr, IOM, GCCE
President/CEO

Correspondence #15

From: ggkern@valornet.com
Sent: Wednesday, January 25, 2023 1:00 PM
To: SPDP-EIS@NNSA.DOE.GOV
CC: ggkern@valornet.com
Subject: [EXTERNAL] FW: NNSA
Attachments: NNSA.pdf

Attached please find letter of support for diluted surplus plutonium to WIPP.

COMMITTEES:

RANKING MEMBER:

- Tax , Business & Transportation

MEMBER:

- Education

INTERIM COMMITTEES:

MEMBER:

- Revenue Stabilization & Tax Policy Committee
- Radioactive & Hazardous Materials Committee
- Investments & Pensions Oversight Committee

ADVISORY MEMBER:

- Legislative Education Study Committee
- Legislative Health & Human Services Committee

Surplus Plutonium Disposition Program Final Environmental Impact Statement

SENATOR GAY G. KERNAN
R-Chaves , Eddy & Lea-42

928 W. Mesa Verde
Hobbs, NM 88240

Cell: (505) 629 -8081
Fax: (575) 392 -1431
E-mail: ggkern@valo rnet.com

January 25, 2023

Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site
SPDP-EIS@NNSA.DOE.GOV

To whom it may concern:

Thank you for the opportunity to comment on this topic. My name is Gay Kernan, and I am a Republican member of the New Mexico Senate representing District 42 since 2002. **[Comment 15-1][Response 5.3]** I am writing in support of the Department of Energy and NNSA's plans to use the Waste Isolation Pilot Plant as the final resting place for the nation's diluted surplus plutonium. Our nation has struggled to find a solution to this issue for many decades, and I believe this to be the safest, most cost-effective, most sensible approach. I also offer the following considerations.

- DOE and NNSA have studied many methods and prepared several NEPA reviews to evaluate alternative means of assuring that surplus plutonium would never again be used for nuclear weapons. Some of the proposals being considered for this waste would incur significant delay in the disposal process and add extreme costs. Of the remaining alternatives, the preferred (WIPP) alternative is the most transparent and would, in fact, actually reduce shipments across northern new Mexico.

- **[Comment 15-2][Response 25.1]** The cities of Carlsbad and Hobbs, as well as the counties of Eddy and Lea, are very proud of the role this region plays in handling our nation's nuclear waste challenges. In addition to the NNSA's own extensive EIS process, the national Academies of Science (NAS) completed a congressionally mandated evaluation of this alternative plan and concluded that the DOE's plan is technically viable.

Sincerely,
Gay G. Kernan

Correspondence #16

From: Edward Rodriguez
Sent: Wednesday, January 25, 2023 12:38 PM

Correspondence

To: spd-p-eis@nnsa.doe.gov

Subject: [EXTERNAL] Letter Supporting Dilute and Dispose Plan

Attachments: 2023-1-25 Support of Dilute and Dispose Proposal.pdf

Thank you for your time in Carlsbad on 24-Jan-2023.

I presented to the committee, however I abbreviated my message for the sake of brevity. Here is my statement in its entirety.

##Note: Correspondence includes City of Carlsbad letterhead.##

Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site
spd-p-eis@nnsa.doe.gov

To whom it may concern:

I appreciate the opportunity to comment on the recently conducted Environmental Impact Study conducted by the National Nuclear Security Administration. **[Comment 16-1][Response 5.3]** The study was thorough and well directed in comparing various plans to determine the most appropriate course of action. DOE and NNSA studied many methods and prepared several NEPA reviews to evaluate alternative means of assuring that surplus plutonium would never again be used for nuclear weapons. In its final choice, NNSA has focused on mature methods and proven technologies, based on scientific processes. **[Comment 16-2][Response 5.5]** Thus, the "SRS NPMP Sub Alternative" and "All-SRS Sub-Alternative" clearly should be rejected because existing facilities at LANL and SRS are already adequate to achieve mission success. Both of these Sub-Alternatives would require extensive new facilities and capabilities at SRS and would incur significant delay in beginning processing of surplus Plutonium for disposal at WIPP.

[Comment 16-3][Response 4.3] I whole heartedly agree that the Dilute and Dispose Plan utilizes tried and proven science-based operations, safe methods of not only packaging but also transporting the diluted waste over designated roadways by the best and safest of operators and drivers. Once at WIPP the same is true of the verification, documentation, off-loading and emplacement of the materials.

[Comment 16-4][Response 8.6]

Carlsbad is very proud to be the host for the WIPP Site. Our community is better off, not only because of the jobs provided, but because its operators have continued to be good neighbors and offer great support to our community, giving countless hours of service to our local organizations through varied methods such as serving on boards, participating in city wide planning and the implementation of plans for the betterment of our community. However, none of these benefits of hosting them would be worth anyone's safety. Carlsbad has two City Councilors who work at WIPP, so as a Council we have firsthand knowledge of site operations. WIPP has been, is and I'm sure will continue to be one of the safest work environments in the world. Their safety record speaks for itself, the millions of safe transport miles and zero accidental releases should be nationally recognized and appreciated.

Southeast New Mexico is the Energy Corridor of the state, we offer services to the entire nation in not only nuclear with WIPP, Urenco Enrichment Facility and hopefully soon Holtec Interim Storage, but also oil/gas in the Permian Basin Play and the original player in our little corner of heaven, Potash.

[Comment 16-5][Response 4.3] I fully support the Dilute and Dispose plan, I agree that WIPP is the best place to entomb the diluted waste and I feel that Carlsbad and Southeastern New Mexico have the experience, workforce and the intellectual abilities in our population to answer the call for this national call to action.

Correspondence #17

From: John Heaton
Sent: Thursday, January 26, 2023 8:13 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] SPDP-EIS Comments
Attachments: WIPP NNSA SPDS D&D Hearing 1-26-23 Comments.docx

Please find attached my comments on the SPDP EIS.

John Heaton
1399 Barranca De Oro
Santa Fe, NM 87501
jaheaton1@gmail.com

NNSA SPDS Comments
January 26, 2023
BY: John A. Heaton
Santa Fe, NM 87501
Jaheaton1@gmail.com

RE: Via Email SPDP-EIS@NNSA.DOE.GOV

To summarize, the EIS being evaluated and commented upon includes a preferred alternative that would ship some 34 tons of surplus Plutonium to be oxidized at LANL and then shipped to SRS. At SRS it would be diluted to CH TRU waste by mixing it with propriety components to make the Plutonium unretrievable and eliminate the need for very expensive safeguards. The diluted Plutonium would then be shipped to WIPP for disposal.

[Comment 17-1][Response 8.6] WIPP has taken several tons of similarly diluted Plutonium already, and it is presently engaged in taking some 13 tones (6 tons now and 7.1 future tons) of non-pit Plutonium diluted in a similar way at SRS. That campaign is already in process. WIPP is only approximately 40% full. The 34 tons which includes the 7.1 non-pit Plutonium will create only 2500 additional shipments compared to the 12,000 shipments already received now. Therefore, the volume of diluted Plutonium has little impact on WIPP's legislated volume.

Previously, the United States planned to use the surplus Plutonium to make MOX (mixed oxide fuel), which would be used in nuclear power plants for electrical generation. But no commercial plant wanted to go through the NRC regulations to modify their reactors to be able to use it. In addition, the U.S. program to develop MOX fuel ran well over budget, and even more over schedule. All US plans for making orphaned MOX fuel before it was born were abandoned in 2018. If MOX were produced, it would have still required very expensive security safeguards because the Plutonium would have been rather easily extracted from the MOX fuel.

Correspondence

[Comment 17-2][Response 5.4] The sub-alternatives presented, other than LANL, should be rejected as they will have significant costs associated with them and create significant delay to the disposal process. Of the two remaining alternatives of the "all LANL sub-alternative and the SRS preferred alternative," both are capable of providing the dilution process and preparation for shipping. As a New Mexican interested in the economy of the state and jobs the LANL alternative should be chosen. 1) It significantly eliminates transportation miles. 2) LANL is thousands of miles closer than South Carolina. 2) Transportation costs will be reduced significantly. 4) Many new jobs will be created in New Mexico 5) Process oversight will be much more simple in terms of meeting the WIPP WAC and monitoring. 6) Oxidation will occur at LANL, and it makes no sense to then send the oxidized Plutonium clear across the country to South Carolina and then back to WIPP. 7) Oxidize, dilute, and package at one place and then ship to the close disposal facility, WIPP. Nothing else makes any sense from a cost and efficiency perspective.

[Comment 17-3][Response 8.6]

From a state regulator perspective, the diluted Plutonium has no RCRA constituents making it outside New Mexico's regulatory purview.

The National Academy of Science was mandated by Congress to evaluate the Dilute and Disposal action plan, and even though they made several recommendations, they concurred that the proposed dilute and disposal plan was a workable approach to the disposal of surplus Plutonium.

[Comment 17-4][Response 8.6] As a long time supporter of WIPP and its clean up capability for the weapons complex that saved the lives of thousands and thousands of U.S. soldiers by stopping WWII. New Mexico made its sacrifice with the large numbers of National Guard soldiers and enlistees who were tortured and died during the Bataan Death March. **[Comment 17-5][Response 2.3]** It is now appropriate we do what we can to eliminate proliferation of nuclear weapons where we can.

[Comment 17-6][Response 5.4] I support both the LANL alternative and the preferred alternative, but prefer the LANL alternative.

Correspondence #18

From: Connie Estes

Sent: Thursday, January 26, 2023 3:17 PM

To: SPDP-EIS@nnsa.doe.gov

Subject: [EXTERNAL] Surplus Plutonium Disposition Disapproval

To whom it may concern,

[Comment 18-1][Response 8.7] I am a lifelong resident of Carlsbad, New Mexico and I vehemently oppose the use of the WIPP site as a means of disposal for 34 MT of plutonium. Our government has proven time and time again that something deemed to be safe, is not necessarily so.

WIPP was originally constructed to be used for disposal of 'small amounts of radiation,' yet here they are, proposing to take things even further than their original request.

I am concerned not only for the residents of the surrounding areas, but the long term effects on the environment. Just because we can do something, does not mean we should. I think this would be detrimental to our State in the future and I would hope NNSA and DOE

will reconsider.

[Comment 18-2][Response 9.3] I believe the public should be given a choice to vote on the outcome of this project before the decision to continue to made.

Warm regards,

Connie Estes
1712 Crenshaw Ct
Carlsbad, NM 88220

Correspondence #19

From: Drew and Alex Kornreich
Sent: Saturday, January 28, 2023 7:13 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] SPDP EIS comment

Name: Drew Kornreich
Location: Los Alamos, NM

Comment:

[Comment 19-1][Response 2.4] The SPDP EIS (DOE/EIS-0549) is related to and fundamentally tied the disposition of 34 MT of weapon-grade plutonium. This value was defined in 1994 as being excess to national security needs. Given the facts that

- 1) nearly 3 decades have passed since this particular amount was defined;
- 2) the Plutonium Management and Disposition Agreement (PMDA) with Russia is no longer in effect;
- 3) the US no longer has the capability to produce weapon-grade plutonium because all reactors at Hanford and Savannah River have been permanently shut down; and
- 4) the global security posture is vastly different now with Russia's invasion of Ukraine and the prospect of a Chinese breakout in their nuclear capability,

the NNSA should not seek to implement any alternative other than the No-Action Alternative, until the Executive Branch revisits the value of 34 MT(Pu) and either validates that our national security can be maintained adequately for the foreseeable future without this material, or revises the value, in which case the NNSA would need to update the alternatives considered and resume the EIS process.

Correspondence #20

From: Will Frierson
Sent: Monday, January 30, 2023 8:57 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] RE: Draft Environmental Impact Statement for the Surplus Plutonium Disposition
Attachments: SCCOC SPD EIS Comments.pdf

To whom it may concern:

Correspondence

Please see the attached comments from the SC Chamber of Commerce in support of the draft Environmental Impact Statement (EIS) for the National Nuclear Security Administration's (NNSA) Surplus Plutonium Disposition Program.

Do not hesitate to contact me with any questions about our comments.

Thanks,

Will Frierson
Vice President of Government Affairs,
SC Chamber of Commerce

(803) 255-2558 (office)
(803) 747-0408 (cell)
will.frierson@scchamber.net
www.scchamber.net
1301 Gervais Street, Suite 1100, Columbia, SC 29201

##Note: Correspondence includes South Carolina Chamber of Commerce letterhead.##

January 30, 2023

Ms. Maxcine Maxted,
NEPA Document Manager
U.S. Department of Energy/National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328
Aiken, SC 29802

RE: Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program (SPDP EIS) (DOE/EIS-0549)

Ms. Maxted,

On behalf of the South Carolina Chamber of Commerce (SC Chamber), we are pleased to offer comment regarding the draft Environmental Impact Statement (EIS) for the National Nuclear Security Administration's (NNSA) *Surplus Plutonium Disposition Program*.

The SC Chamber is a statewide organization that represents a broad cross-section of employers in South Carolina. SC Chamber member companies employ hundreds of thousands of South Carolinians in high-paying jobs and lead the way on recycling, environmental protection, renewable energy generation and sustainable manufacturing operations. The SC Chamber supports pro-job and pro-business policies at the state and federal level as we seek to fulfill our mission of being the leading voice for business in South Carolina. Our goal is to create the best business climate possible, so businesses can be at their best. We pride ourselves in accomplishing this goal while balancing environmental protection required by state and federal laws and regulations.

[Comment 20-1][Response 27.1] The Savannah River Site (SRS) is a key economic driver in the Central Savannah River Area (CSRA) and for the state of South Carolina. Over

the last decade, SRS has had a multi-billion-dollar regional impact and helped to support tens of thousands of direct and indirect jobs.

[Comment 20-2][Response 5.3] SRS has an exemplary safety record and decades of experience in the handling of plutonium and other nuclear materials. It has the infrastructure, expertise, and workforce necessary to support the NNSA's goal of ensuring that the 34 MT of weapons grade plutonium outlined in this proposal can be safely disposed of and never again used in a nuclear weapon.

The potential to grow the capabilities at SRS will have a positive impact on the South Carolina economy and for business across the state. The SC Chamber supports the goals outlined in the draft EIS and is confident that this mission can be completed safely and effectively.

Thank you for the opportunity to provide our support for the draft SPDP EIS. If you have any questions or would like to discuss this further, please contact Will Frierson at Will.Frierson@scchamber.net.

Sincerely,

Bob Morgan
President & CEO
South Carolina Chamber of Commerce

1301 Gervais St., Suite 1100, Columbia, South Carolina 29201

Correspondence #21

From: Teresa Seamster
Sent: Monday, January 30, 2023 12:48 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] New Mexico WIPP expanded mission

To NNSA/DOE

Re: Comments on Dilution of PU and transport to Waste Isolation Pilot Program

[Comment 21-1][Response 8.7] The missteps along the way that have led NNSA to focus US transuranic waste disposal on the NM Waste Isolation Pilot Program is a study in federal waste of taxpayer money and a rock solid inability to collaborate with our state and local governments.

Dilute and Dump v. Immobilize and Keep in Place

[Comment 21-2][Response 4.2] The fewer times plutonium is handled for any reason, the safer it is for all concerned. Powdered plutonium is especially hazardous and is the most difficult form to prevent proliferation and the most incendiary with no ignition source needed to explode. NM Environment Department has paused the approval of any permit to expand WIPP's mission to include storing of this nuclear waste material.

[Comment 21-3][Response 7.3] The plutonium surplus waste is in Savannah River and should be vitrified (immobilized) and kept in place there. Billions have been spent on this

facility and have failed to meet dubious deterrence goals rendering this money wasted and the "national safety" of our country where it was before -quite safe from nuclear attack - with thousands of reliable and viable warheads.

NM and other states are at high Risk

[Comment 21-4][Response 23.3] Powdered plutonium is a waste never meant for WIPP and is a most dangerous form of plutonium. Shipping this type of plutonium over 3,000 miles from Amarillo to Los Alamos to Savannah River and back to WIPP in New Mexico is a countrywide risk scenario for a catastrophic accident.

[Comment 21-5][Response 5.5] The steep winding "hill" route to Los Alamos and its isolated position on a geologically unstable volcanic formation should provide two sobering realities to NNSA that make this location unsuitable for pit transportation and building of new facilities. Everyone who lives here knows the up to 12 hours it takes to evacuate residents from Los Alamos when catastrophic fires occur (Cerro Grande Fire, Dome Fire) -and they are escalating in frequency and intensity. There has been no USGS seismological analysis done for probable seismic activity in Los Alamos that could trigger building collapse and release of plutonium being manufactured.

[Comment 21-6][Response 27.5] NNSA's own director has stated that pit production at Los Alamos would be a grave mistake and misappropriation of taxpayer dollars:
LANL SWEIS Comments_seamster_09152022.docx

*The Savannah River Site could by itself produce up to 80 plutonium pits per year if needed, according to a new National Nuclear Security Administration review. Repurposing the failed multibillion-dollar Mixed Oxide Fuel Fabrication Facility to produce the pits could **"be in the best use of taxpayer dollars"** according to NNSA Chief Lisa Gordon-Hagerty, in a 2019 interview.*

[Comment 21-7][Response 23.4] One molecule of powdered plutonium, when released and inhaled, causes cancer 100% of the time. As a former school administrator in Eldorado, NM (in Santa Fe County on US285 south), I was part of a community evacuation team that submitted (inadequate) proposals to the state of actions we could take in case of a hazardous chemical or radioactive emergency in our community located on the US285-WIPP route. The inability to safely shelter in place or transport hundreds of children away from the hazard zone made the plan dependent on any incident being very minor or on unspecified rescue services that didn't and still don't exist.

[Comment 21-8][Response 27.5] The list of reasons to abandon the multi-billion boondoggle that is pit production at LANL and transportation of nuclear waste to WIPP is complex and ever changing. The impacts on our safety, health, economy, social wellbeing, quality of life and future for our children are all too evident. The contamination of our environment to the point of becoming unlivable is also part of the unthinkable tomorrow we see ahead.

Teresa Seamster, MS EdS
Former School Administrator
US285 South
Santa Fe County

Correspondence #22

Transcription of Audio Comment received via Voicemail

Commenter: Dan Solitz

Affiliation: Private Citizen

Date & Time Received: 1/30/2023 at 7:47 PM

Hello, this is Dan Solitz. I tried to unmute myself in the meeting and couldn't, so I'm phoning my comments in. I would like... I reviewed it. It was a while back on the...I'm speaking for myself. But I review a lot of these documents regarding the Hanford waste disposal in Washington. And maybe the details have slipped my mind but **[Comment 22-1][Response 1.1]** I would like a more precise definition of "readily" as far as "readily" not available for weapons production.

[Comment 22-2][Response 8.2] I would also like a more precise idea of how much the volume of the disposed plutonium will count against the Land Withdrawal Act. **[Comment 22-3][Response 5.2]** I'd also like to know what the timeline is; how long this is gonna take. **[Comment 22-4][Response 5.1]** And I also would like to know what the volume of the facilities that do the downblending... what that volume will be and also how much that will count against the Land Withdrawal Act. **[Comment 22-5][Response 2.3]** I would like to say that I think it's important to clean up Hanford and these other Sites, but it's probably, for future generations, more important to get this stuff out of circulation for humanity forever, or at least as much as that is possible to do.

[Comment 22-6][Response 9.1] I think that a better approach would be, in general, for all of this, is to clearly delineate who has benefited from what activities and who has been costed by these activities, and try to balance that out in a regional and national way, in taking an overall approach to nuclear waste disposal. And I would like to see the DOE get everybody together and put a national picture together so that there's some sense of equity as far as carrying on these activities, otherwise NIMBYs just gonna probably shut it down.

That concludes my comments. Thank you.

Correspondence #23

Transcription of Audio Comment received via Voicemail

Commenter: Anonymous

Affiliation: Private Citizen

Date & Time Received: 1/31/2023 at 7:32 PM

[Comment 23-1][Response 9.3] The online Zoom meeting is not obtainable. It says the webinar time has expired, but that was for Eastern, Central, Mountain and Pacific time for all kinds of people who wanted to have comment, so that surely hasn't expired. I've tried the passcode... Energy.gov, NNSA, NNSA, with backslashes, NEPA Reading Room. Surely this is not the way you want to greet the public... with no answer.

Correspondence

Correspondence #24

From: Richard and Pushpa Knottenbelt
Sent: Wednesday, February 1, 2023 9:08 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Comment on Environmental Impact Report of Surplus Plutonium Disposition Programme
Attachments: Comment on the Environmental Impact for the Disposition of Surplus Plutonium Project.pdf

Attached please find my submitted comments on the Surplus Plutonium Disposition Environmental Impact Statement.

Richard B Knottenbelt

12425 Magic Mist Rd NE

Albuquerque

NM 87122

Email: rknottenbelt621@gmail.com Mobile: 505313 5263 [NOT EFFICIENT AS I AM VERY DEAF!!!]

This email has been checked for viruses by AVG antivirus software. www.avg.com

Comment on the Environmental Impact for the Disposition of Surplus Plutonium Project

Richard B Knottenbelt

12425 Magic Mist Rd NE

Albuquerque

New Mexico 87122

Email: rknottenbelt621@gmail.com Mobile : (505)313 5263 (I am DEAF so this is not efficient!)

1. **[Comment 24-1][Response 25.1]** I appreciate the attempt by the Federal Government to take full responsibility for the Disposition of Plutonium from both commercial (power generation) and Military (nuclear weapon manufacture) and to do so within the US itself rather than involving other nations/entities in either processing or storage.

2. **[Comment 24-2][Response 23.5]** I accept the convert>Dilute> store strategy as the best available option, but remain unconvinced of the safety particularly of the transport and storage stages.

a) **[Comment 24-3][Response 5.1]** I believe that there should be specific provision for monitoring the condition of vehicles and containers on a CONTINUOUS basis **[Comment 24-4][Response 27.2]** and believe that subcontracting these stages to commercial entities does not ensure that standards will be maintained.

b) **[Comment 24-5][Response 27.2]** Who covers the insurance of vehicles carrying

nuclear waste? **[Comment 24-6][Response 23.4]** Who monitors those vehicles in terms of safety and reliability. Is such transport always accompanied by military protection?

[Comment 24-7][Response 27.2] Instead of privatizing this I believe that the Federal Government should accept total responsibility so that no company can plead incompetence or bankruptcy and get out of the situation.

In my opinion the same applies to storage - I am horrified that we consider handing over responsibilities of national security to those whose chief value is making money.

3. **[Comment 24-8][Response 27.9]** I very much hope that our country will work to eliminate the use of nuclear means for both power and military defense. That would enable the problem of disposition and waste management to be kept manageable.

Date: 31 January 2023

Correspondence #25

From: Kyle Marksteiner

Sent: Tuesday, January 31, 2023 10:43 AM

To: SPDP-EIS@nnsa.doe.gov; Commissioner Jack Volpato

Subject: [EXTERNAL] Surplus Plutonium Petition

Attachments: WIPP Petition 1-31-23.pdf

Submitted at Mr. Volpato's request:

Greetings, On behalf of the Mayor's Nuclear Task Force I wish to thank your group for visiting Carlsbad and presenting the plan to our citizens. **[Comment 25-1][Response 8.6]** I believe that this is a rational and reasonable approach to disposing of the surplus plutonium. I further believe this will be the safest pathway for the plutonium to be transported. WIPP has an exemplary record of transportation with over 13000 shipments that have been accident free. Enclosed is a petition from Eddy County citizens in favor of the proposed plan (This was originally packaged for the state, but is relevant to the current discussion). We look forward to working with you in the future on this program

Sincerely,
Jack Volpato
Chairman Mayor's Nuclear Task Force

(Attachment)

Visit us on Facebook at: <https://www.facebook.com/CityofCarlsbadGov/>

Kyle Marksteiner
City of Carlsbad -Public Information Officer
(575) 706-2324

Petition to Governor Michelle Lujan Grisham

Please consider signing this Petition in support of the Waste Isolation Pilot Plant (WIPP) and the Department of Energy's plan to dispose of 35 metric tons of down-blended plutonium at the underground repository. Signatures will be collected and sent to the Governor's office.

[Comment 25-2][Response 8.6] We, citizens of New Mexico, sign this petition in support of the Waste Isolation Pilot Plant (WIPP) and in support of the Department of Energy's plan to dispose of 35 metric tons of down-blended plutonium at the underground repository for defense-generated transuranic (TRU) waste. In providing this petition of support, we ask the Governor of New Mexico to consider the following:

- The Waste Isolation Pilot Plant has been an incredible success story for New Mexicans and for the nation. Since its opening in 1999, thousands of containers of TRU waste have been permanently and safely disposed of 2,000 feet underground. This includes TRU waste from other locations in New Mexico, such as Sandia (SNL) and Los Alamos (LANL).
- WIPP has been an incredible economic driver for New Mexicans, generating thousands of high-paying jobs and bringing global scientific expertise to the area. WIPP is the crown jewel of the Department of Energy and a source of pride for many New Mexicans.
- WIPP's transportation record is second to none and is used as a model for safety across the globe. WIPP's transportation now has 15 million safely loaded miles.
- Down-blended plutonium is similar to the nearly 3 tons of waste already disposed of at WIPP from the Rocky Flats facility. This contact-handled defense transuranic waste meets all the waste acceptance criteria for WIPP. The National Academy of Sciences has reviewed the plan to dispose of down-blended plutonium at WIPP and recognizes it as the most viable alternative.

In fact, the consideration of the possibility of sending this waste to WIPP has been in development for more than a decade and has involved rigorous scientific analysis and extensive public discourse.

We ask the Governor to recognize the high level of support that exists in New Mexico for the Waste Isolation Pilot Plant and its continued good service to our nation.

Note: Signature pages shown below.

Surplus Plutonium Disposition Program Final Environmental Impact Statement

From: Kyle Marksteiner
Sent: Tuesday, January 31, 2023 10:43 AM
To: SPDP-EIS@mnsa.doe.gov; Commissioner Jack Volpato
Subject: [EXTERNAL] Surplus Plutonium Petition
Attachments: WIPP Petition 1-31-23.pdf

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We look forward to working with you in the future on this program

Sincerely,
Jack Volpato
Chairman Mayor's Nuclear Task Force

(Attachment)

--
Visit us on Facebook at: <https://www.facebook.com/CityofCarlsbadGov/>

Kyle Marksteiner
City of Carlsbad - Public Information Officer
(575) 706-2324

This message does not originate from a known Department of Energy email system.
Use caution if this message contains attachments, links or requests for information.

Petition to Governor Michelle Lujan Grisham

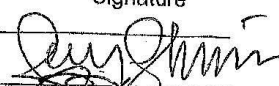


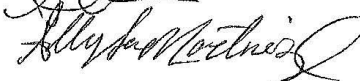
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- **WIPP's transportation record is second to none and is used as a model for safety across the globe. WIPP's transportation now has 15 million safely loaded miles.**
- **Down-blended plutonium is similar to the nearly 3 tons of waste already disposed of at WIPP from the Rocky Flats facility. This Contact Handled defense transuranic waste meets all the waste acceptance criteria for WIPP. The National Academy of Sciences has reviewed the plan to dispose of down-blended plutonium at WIPP and recognizes it as the most viable alternative.**

In fact, the consideration of the possibility of sending this waste to WIPP has been in development for more than a decade and has involved rigorous scientific analysis and extensive public discourse.

We ask the Governor to recognize the high level of support that exists in New Mexico for the Waste Isolation Pilot Plant and its continued good service to our nation.

Name	Zip Code	Signature
JAY JENKINS	88220	
Danny Cross	98220	
Gloria Chapter	88220	
Alysa Martinez	88220	

Petition to Governor Michelle Lujan Grisham


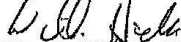
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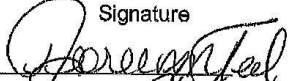

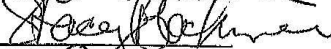
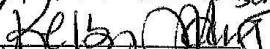
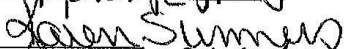
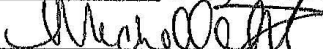
We ask the Governor to recognize the high level of support that exists in New Mexico for the Waste Isolation Pilot Plant and its continued good service to our nation.

Name	Zip Code	Signature
Debra Hicks	88240	
William Hicks	88240	

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Jon Mendes	88220	[Handwritten Signature]
Mike Carrier	88220	[Handwritten Signature]
Frank Dwyer	88220	[Handwritten Signature]
Gary Perkowski	88220	[Handwritten Signature]
Richard Stephens	88220	[Handwritten Signature]
Andy McKelvey	88220	[Handwritten Signature]
Mari Gomez	88220	[Handwritten Signature]
Meghan Dalton	88220	[Handwritten Signature]

Petition in Support of WIPP- Page 2

Name	Zip Code	Signature
Narcen Teel	88253	
Sam Plumlee	88220	
Stacey Bachman	88220	
A. Ramirez	88220	A. Ramirez
Kelby Henstay	88200	
Jaren Summers	88220	
Michelle Martinez	88220	

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Sandra Dianna Joop	88220	Sandra Dianna Joop
Michelle Boeglin	88220	Michelle Boeglin
Katherine Jones	88220	Katherine Jones
Brittany Gonzalez	88220	Brittany Gonzalez
JANELI CASTILLO	88220	Janeli Castillo
Kristyn Porter	88220	Kristyn Porter
Morgan Najjar	88220	Morgan Najjar
Renee Smith	88220	Renee Smith
Joslyne Slate	88220	Joslyne Slate

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Janice Nichols	88220	Janice Nichols
Dachelle Thompson	88220	Dachelle Thompson
Fuscia Hill - Fuscia Hill	88220	Fuscia Hill
Mike Martinez	88220	Mike Martinez

Petition In Support of WIPP- Page 2












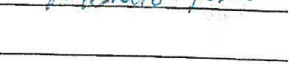


Name	Zip Code	Signature
Tommy Canal	88260	Tommy Canal
Sharon Davis	88260	Sharon Davis
Ashley Jordan	88260	Ashley Jordan
Autumn Morris	88260	Autumn Morris
Tony Abernathy	88260	Tony Abernathy
Mylene Patterson	88267	Mylene Patterson
SUZANNE WILLIAMS	88240	Suzanne Williams
Lenora Gomez	88260	Lenora Gomez
Irish Gonzalez	88260	Irish Gonzalez
Twilla Thomason	88240	Twilla Thomason

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Vanessa Carrillo	88220	Vanessa Carrillo
Kora Tanner	88220	Kora Tanner
Valerie Olivero	88220	Valerie Olivero
Veronica Onsurec	88220	Veronica Onsurec
Eisa Jaquez	88220	Eisa Jaquez
Jayden Whittell	88220	Jayden Whittell
Kim Longria	88220	Kim Longria
Jennifer Mawright	88220	Jennifer Mawright
Jaelyn Fiero	88220	Jaelyn Fiero
Wendy S. Griffin	88220	Wendy S. Griffin
Alexa R. Pefero	88220	Alexa R. Pefero
Miriam Padilla	88220	Miriam Padilla
Caitlyn Dorado	88220	Caitlyn Dorado
Madaline West	88220	Madaline West

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Charles L. Rios	88220	
Alberto Maestas	88220	
Jose Rafael Carranza	88220	
Luis A. Campos	79107	
William Pappas	88220	
Jose Lerena	88220	
David Campos	79107	
Maribel V	88220	
Charles Jackson	88220	
Valerie Hernandez	88220	
Jerique Parent	88220	
Bryan Morales	88220	
Luisa L. Ramirez	88220	
Marceta Torres	88220	

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Richard Forrest	88220	Richard S Forrest
Cari Webster	88220	Cari Webster
Dean Celvoni	88220	Dean Celvoni
Justin Walker	88220	Justin Walker
Michael Calloway	88220	Michael Calloway
Robert J. Farmer Jr.	88220	Robert J. Farmer Jr.
Justin Walker	88220	Justin Walker
Melina Burns	88220	Melina Burns
Vanusa Garcia	88220	(V Garcia)
Tova Cummings	88220	Tova Cummings
Belen Gallegos	88220	Belen Gallegos
James Bayson	88220	James Bayson
Esperanza Munoz	88220	Esperanza Munoz
Becky Garcia	88220	Becky Garcia
Leonora Gonzalez	88220	Leonora Gonzalez
Diana Yeager	88220	Diana Yeager
Cheyenne Lewis	88220	Cheyenne Lewis
Wendy Gutierrez	88220	Wendy Gutierrez
Rebecca McIntire	88221	Rebecca McIntire
Cheryl Stachem	88220	Cheryl Stachem
Savanna Garcia	88220	Savanna Garcia
Timothy E. Brown	88220	Timothy E. Brown
Arlis Ceballos	88220	Arlis Ceballos
Larson Simmons	88220	Larson Simmons
Renee Valliere	88220	Renee M. Valliere
Michelle Martinez	88220	Michelle Martinez
T. Andrew Cooper	88220	T. Andrew Cooper

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Anthony Foreman	88220	Anthony Foreman
Jen Barkley	88220	Jen Barkley
SUSAN BarKdale	88220	Susan Barkley
Charlotte Sibley	88220	Charlotte Sibley
Maria Cole	88220	Maria Cole
Janie Rose	88220	Janie Rose
JW Saphin	88220	JW Saphin
Chad Fryan	88220	Chad Fryan
Caleb Cunningham	88220	Caleb Cunningham
Becky Cunningham	88220	Becky Cunningham
JC Cunningham	88220	JC Cunningham
Amy Miles	88220	Amy Miles
Bryan Burns	88220	Bryan Burns
Justin Kikes	88220	Justin Kikes
Gabriel Kovas	88220	Gabriel Kovas
Michael	88220	Michael
Richard Abernombis	88220	Richard Abernombis
Robert Culver	88220	Robert Culver
JEFF MAERINOG	88220	JEFF MAERINOG
Katie Gomez	88220	Katie Gomez
Alexandra Chase	88220	Alexandra Chase
T. H. H.	88220	T. H. H.

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Mark Walterscheid	88220	Mark Walterscheid
Lisa Walterscheid	88220	Lisa Walterscheid
Billy Blair	88220	Billy Blair
Lulu Shu	88220	Lulu Shu
John Spayre	88220	John Spayre
ERIC SPENCER	88220	Eric Spencer
Cathryn N. Brown	88220	Cathryn N. Brown
James G. Townsend	88210	James G. Townsend
Lanette Pettigrew	88260	Lanette Pettigrew
Shannon Pettigrew	88260	Shannon Pettigrew
Michael R. Brown	88220	Michael R. Brown
Edward T. Boobian	88220	Edward T. Boobian
Theresa Rodriguez	88220	Theresa Rodriguez
Megan Delalosa	88232	Megan Delalosa
Charlote Dudley	88221	Charlote Dudley
Margaret McClure	88220	Margaret McClure
Rhonda Jones	88220	Rhonda Jones
Dean Bain	84220	Dean Bain
Dandy Richardson	88270	Dandy Richardson
Karen RICHARDSON	88220	Karen Richardson
Marianna Martnez	88220	Marianna Martnez
James Walterscheid	88220	James Walterscheid


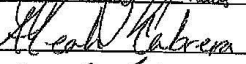





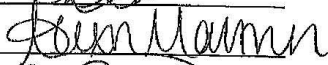

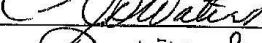
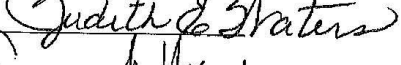

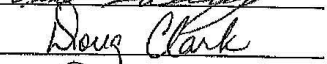

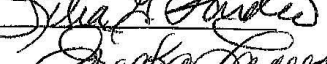
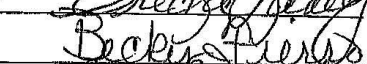
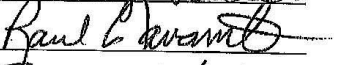
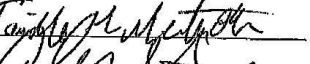

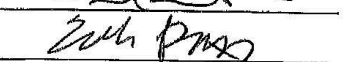



Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Ty Allen	88220	Ty Allen
Cody Cayton	88220	Cody Cayton
Ruby Tames	88220	Ruby Tames
Kelly Childs	88220	Kelly Childs
Sammy A. Clouthier	88220	Sammy A. Clouthier
Andrew Olson	79936	Andrew Olson
Leanna Lopez	87043	Leanna Lopez
Lisa Rauso	88220	Lisa Rauso
James Rose	75087	James Rose
Vernice Ruiz	88220	Vernice Ruiz
Vance Talbot	88263	VANCE Talbot
Joseph Owen Carleton	88263	Joseph Owen Carleton
Doris Brubaker Carleton	88263	Doris Brubaker Carleton
Toni Beland	88220	Toni Beland
Jonathan Chrysler	88220	Jonathan Chrysler
Bryan K. Poirer	88201	Bryan K. Poirer
Allan Burdeen	88220	Allan Burdeen
Brandon Washit	88220	Brandon Washit
David Grell	88220	David Grell
Steven H. Cummings	88220	Steven H. Cummings
Paul C. Lewis	88220	Paul C. Lewis
Amanda Nelson	88220	Amanda Nelson
Lorina DeAnda	88270	Lorina DeAnda

Petition in Support of WIPP- Page 2

Name	Zip Code	Signature
Fernando Santana	88256	Fernando Santana
Eva Morales	88220	Eva Morales
Jane Jones	88220	Jane Jones
Juan Acosta	88220	Juan Acosta
Demis Madril Boyea	88220	Demis Madril Boyea
Julie Jay	88220	Julie Jay
Georgen Najari	88220	Georgen Najari
Sheena Linney	88220	Sheena Linney
Alvin Rose	88201	Alvin Rose
Vonicle E. King	88220	Vonicle E. King
Aaron Sues	88220	Aaron Sues
Renier Madrid	88220	Renier Madrid
Taryn Chacon	88256	Taryn Chacon
STEVEN UTLEY	88221	Steven Utley
Mark Schinnerer	88220	Mark Schinnerer
Edie Diaz	88220	Edie Diaz
Chantel Flores	88220	Chantel Flores
Amber Padilla	88220	Amber Padilla
Janie Benteria	88220	Janie Benteria
Kim Brannan	88220	Kim Brannan
Erin Lane	88220	Erin Lane
Landra Corand	88220	Landra Corand
Sonia E. Mitchell	88256	Sonia E. Mitchell

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Brittany Jenkins	88220	
ALEAH CABRERA	88220	
Cade Portillo	88220	
Aaron Armentarez	88220	
Rheylon Dixon	88220	
Brittnee Adamson	88220	
Chanel Guillins	88220	
ALYNN MAMMER	88220	
ELIZABETH SMALLER	88220	
James D Waters	88220	
Judith E. Waters	88220	
Savannah M Hixon	88220	
Paul Blankenship	88220	
Doug Clark	87122	
Wang Bradford	88220	
Jillia M. Sattam	88286	
Ericka Laney	88220	
Becky Friend	88220	
Raul Navarrete	88220	
Monique Methola	88220	
Ashley Giovenco	88220	
Israel Estrella	88203	
Cole Burton	88220	

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Ciara Martinez Funk	88220	Ciara Martinez Funk
Breonna Clemmer	88220	B Clemmer
Lillie Vargas	88220	Lillie Vargas
Adrianne Arista	88220	Adrianne Arista
Michael Cross	88220	Michael Cross
Nikki Holland	88220	Nikki Holland
Keith Krause	88220	Keith Krause
Gabrielle Ortega	88220	Gabrielle Ortega
Erlinda Franco	88220	Erlinda Franco
KayLynn Franco	88220	KayLynn Franco
Vishal Kholwadkar	88220	Vishal Kholwadkar
Isabella Dominguez	88220	Isabella Dominguez
Britney Lechuga	88220	Britney Lechuga
Joseph D Cross	88220	Joseph D Cross
Margie DeSantos	88220	Margie DeSantos
Jenice Bell	88220	Jenice Bell
Jazell Hernandez	88220	Jazell Hernandez
Row SINGLETON	88220	Row Singleton
Patrick Smith	88220	Patrick Smith
Gib FORD R. HOWARD	88220	Gibford R. Howard
Irene Roberts	88220	Irene Roberts
G.H. COLLIS	88220	G.H. Collis
Antonio A Dominguez	1000 N. Pate St.	

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
K.C. Cass	88220	K.C. Cass
Don Adell	88220	Donny F. Adell
Jimi G. Townsend	88210	Jimi G. Townsend
Valerie Murrill	88220	Valerie Murrill
Kay Elkins	88220	Kay Elkins
Peggy Burt	88220	Peggy Burt
Jesse Wynon	88220	Jesse Wynon
Mary Horn	88220	Mary Horn
Merrily Cage	88220	Merrily Cage
Norma Kelley	88220	NORMA KELLEY
Ladell Stafford	88220	Ladell Stafford
Shirley Ballard	88220	

Surplus Plutonium Disposition Program Final Environmental Impact Statement



Petition to Governor Michelle Lujan Grisham

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We ask the Governor to recognize the high level of support that exists in New Mexico for the Waste Isolation Pilot Plant and its continued good service to our nation.

Name	Zip Code	Signature
DALE JARDWAY	88220	
Kyle Marksteiner	88220	
Cheyenne Methola	88220	Cheyenne Methola

Petition to Governor Michelle Lujan Grisham

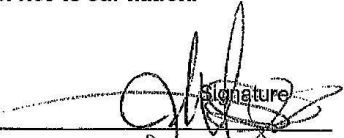
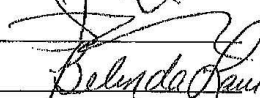
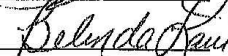
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Name	Zip Code	Signature
John Waters	88220	
Jeff Campbell	88220	
Belinda Lane	88220	

Surplus Plutonium Disposition Program Final Environmental Impact Statement

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Name Craig Deane Zip Code 88202 Signature [Signature]

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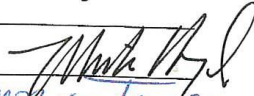
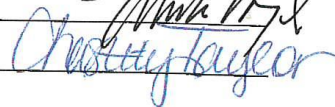
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Name	Zip Code	Signature
Mike Hoyl	88260	
Christy Taylor	88260	

Surplus Plutonium Disposition Program Final Environmental Impact Statement

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Name	Zip Code	Signature
Johnny S. Valpanti	88220	
Tammie McClure	88220	
Hallie Dickerson	88220	

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Name Zip Code Signature

Jason Wyatt

88220



~~Sandra Diane Jaap~~

~~88220~~

~~Sandra Diane Jaap~~

Surplus Plutonium Disposition Program Final Environmental Impact Statement

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Name	Zip Code	Signature
Rafaelia Kramowitz	88220	Rafaelia Kramowitz
Shawn Martin SHAWN MARTIN	88220	Shawn Martin
Jawak Williams JAWA WILLIAMS	88220	Jawak Williams

Petition to Governor Michelle Lujan Grisham


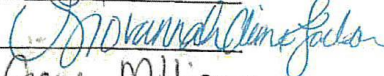
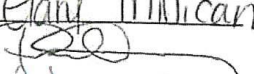


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Name	Zip Code	Signature
Gisela F. Estrada	88220	
Giovanna Jackson	88220	
Gary Millican	88220	
Pamela Villa	88220	
Gabrielle Smith	88220	

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Name	Zip Code	Signature
Cody Greer	88220	<i>[Signature]</i>
Linda Nichols	88220	<i>[Signature]</i>
James Greer	88220	<i>[Signature]</i>

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
Steve Greer	88270	Steve Greer
Seamus J. Ryan	88220	Seamus J. Ryan
Jose D. Pastor	88220	Jose D. Pastor

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Petition In Support of WIPP- Page 2

Name	Zip Code	Signature
ROBERT HANDEL	88254	Robert Handel
Theresa Garcia	88226	Theresa Garcia
IRMA Villanreal	60660	Irma Villanreal
WILLIAM NARON IRVING	88220	William Naron Irving
Robbie Smith	88220	Robbie Smith
Pedro A Camarillo	88220	Pedro A Camarillo
Amanda B. Garcia	88220	Amanda B. Garcia
Rev. David Wilson Rogers	88220	Rev. David Wilson Rogers
Niobe Evertz	88220	Niobe Evertz
Ashley Brock	88220	Ashley Brock

Correspondence

Correspondence #26

Written Public comment Submission

Name: Steve Kopp

Affiliation: Carlsbad Resident

[Comment 26-1][Response 4.3] While it is most unfortunate that the surplus plutonium could not be repurposed/reused in commercial reactors via the MOX process at SRS, I do support the disposition of the 34 MT of downblended & neutralized material at WIPP. **[Comment 26-2][Response 8.6]** It would meet the WIPP WAC under the Land Withdrawal Act as CH TRU, there is no other viable disposal option, and WIPP has the room underground to contain the waste.

Carlsbad SPDP DEIS Hearing
1/24/2023

Correspondence #27

Written Public comment Submission

Name: Steve Kopp

Affiliation: Carlsbad Resident & Retired CTAL PM at WIPP

[Comment 27-1][Response 5.4] I fully support the downblending & neutralization of the 34 MT of surplus plutonium per the **ALL-LANL** sub alternative for safe disposal at WIPP.

My primary reason for recommending the ALL-LANL sub alternative is because it is the least risk alternative in terms of shipping the surplus plutonium before it has been downblended & neutralized. This option represents the least potential for a release or a hijacking of the weapons grade plutonium while in transit to the downblending/neutralization site.

This (as opposed to the SRS sub-alternative) would also be the most cost effective option.

Carlsbad SPDP DEIS Hearing
1/24/2023

Correspondence #28

Written Public comment Submission

Affiliation: Homeowner Los Alamos
[Checked box to remain anonymous]

[Comment 28-1][Response 26.1] Under NO circumstances do I or my family feel that plutonium disposal in Los Alamos is good in any way for our community. It's unhealthy in every way. DO NOT DO THIS! No one wants to live near a plutonium facility and what's here is already unacceptable.

Los Alamos SPDP DEIS Hearing
1/26/2023

Correspondence #29

From: Dodson, Andrea
Sent: Wednesday, February 8, 2023 12:39 PM
To: SPDP-EIS@NNSA.DOE.GOV
Subject: [EXTERNAL] Support for WIPP Disposal of SRS Plutonium
Attachments: Scan_0001.pdf

Sent on behalf of Dr. Kevin Beardmore

Andrea Dodson, MBA
Southeast New Mexico College
Administrative Assistant, Executive
Office of the President
1500 University Drive #112
Carlsbad, NM 88220
575-234-9211

Southeast New Mexico College
President's Office
1500 University Drive
Carlsbad, NM 88220
(575) 234-9200, Fax: (575) 885-4951

February 8, 2023

Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration (NNSA)
Office of Material Management and Minimization
Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328
Aiken, SC 29802

RE: Surplus Plutonium Disposition Proposal

Correspondence

Dear Ms. Maxted:

My name is Kevin Beardmore and I appreciate the Department of Energy's willingness to hold a public meeting to inform the public and solicit feedback in Carlsbad.

[Comment 29-1][Response 25.1] I also appreciate the DOE's effort toward reducing the threat of nuclear weapons proliferation by disposing of surplus plutonium in a safe, secure and environmentally sound manner. I understand that this plutonium will be converted into forms that can never again be used for making nuclear weapons.

My understanding is that the Plutonium Management and Disposition Agreement between the U.S. and Russia is effectively a swords-to-plowshares effort. A MOX Fuel Fabrication Facility will convert some of this material to support existing commercial nuclear power plants, while some of the material will go to the Waste Isolation Pilot Plant.

[Comment 29-2][Response 8.6] As a citizen of Carlsbad, I am very proud of the role the Waste Isolation Pilot Plant has played in cleaning up our nation's radioactive waste. I'm also very proud of the possibility of some of this surplus plutonium being safely and permanently disposed of at WIPP because I strongly support reducing the threat of nuclear weapons proliferation. It's an honor that our community has the opportunity to play a key role in reducing this global threat.

It is my understanding that this surplus plutonium is very similar to other types of waste that have been sent to WIPP over the past 13 years. WIPP has done a remarkable job safely and permanently disposing of the waste it has received so far, and I believe sending surplus plutonium that is not suitable for MOX fuel fabrication to WIPP for disposal is the right thing to do. WIPP, which has ample room for this and other wastes, is the answer for disposal of the unsuitable plutonium.

Thank you,

Kevin Beardmore, Ed.D.

Correspondence #30

From: David Hollenbach
Sent: Sunday, February 19, 2023 1:39 PM
To: spd-p-eis@nnsa.doe.gov
Subject: [EXTERNAL] WIPP

Dear Ms Maxted,

[Comment 30-1][Response 23.3] I am writing to express my grave concerns about the proposed plutonium shipments to WIPP. First transporting by truck powdered plutonium waste for thousands of miles is unacceptably risky. Recall Palestine, Ohio. Recall the fact that experts claimed the chance of a Shuttle accident were 1 in 100,000 before the Challenger crashed. **[Comment 30-2][Response 7.4]** A safer method must be found that does not require shipment over 4000 miles.

Sincerely, David Hollenbach
15 Cerro Blanco Rd

Lamy, NM
87540

Sent from my iPad

Correspondence #31

From: Belenda Lane
Sent: Wednesday, February 8, 2023 11:42 AM
To: SPDP-EIS@NNSA.DOE.GOV
Subject: [EXTERNAL] CDOD Support Letter
Attachments: NNSA Letter.pdf
Ms. Maxted,

I have attached a support letter for the WIPP facility Surplus Plutonium Disposition program.

Thank you,

Belenda Lane
Office Manager/Administrative Assistant Carlsbad Department of Development 400-2
Cascades Ave Suite 201
Carlsbad, NM 88220
Ofc. 575-887-6562
Fax 575-885-0818
Belenda.lane@developcarlsbad.org

January 20, 2023

Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration (NNSA)
Office of Material Management and Minimization
Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328
Aiken, SC 29802

RE: Surplus Plutonium Disposition Proposal

Dear Ms. Maxted:

To begin, I want to thank the NNSA and the Department of Energy for the opportunity to provide written comments on the Environmental Impact Statement evaluating the Surplus Plutonium Disposition Program.

As a member of the Mayor's Nuclear Task Force in Carlsbad, I have been provided information on the proposal and understand what material that the Waste Isolation Pilot Plant (WIPP) facility would handle if this proposal were approved. WIPP is important and necessary to both the nation and the defense industry for cleanup and safe disposal of nuclear material.

As a local business owner, president of the board of directors for the Carlsbad Department of Development, and longtime resident of Carlsbad, **[Comment 31-1][Response 5.3] I**

Correspondence

support the DOE-preferred alternative to utilize the Waste Isolation Pilot Plant for disposal of the 34 metric tons of diluted surplus plutonium that meets the facility's established and approved waste acceptance criteria (WAC).

Since this plutonium both meets the WAC and as it would be diluted in a fashion to where it could no longer be used in any fissile way, it makes perfect sense to dispose of it at the WIPP Facility.

[Comment 31-2][Response 8.6] Many of my friends and neighbors work at WIPP. I would not support a plan that was not safe for them. I believe the proposed plan IS both safe and beneficial for the nation and Carlsbad.

Regards,

Jason Shirley

Correspondence #32

Dear Ms. Maxted,

Please convey this message from a concerned citizen living in Santa Fe, N.M. to all authorities involved with this latest plan to send/transport by surface "surplus weapons-grade plutonium" across the state of New Mexico, probably twice!

[Comment 32-1][Response 5.5] This transfer could put millions of New Mexicans at risk for health and financial impacts from potential accidents or incidents. This is a dangerous plan for all humans! - and our environment in New Mexico!

Please reconsider all plans regarding surplus weapons-grade plutonium, to avoid exposure by transporting this dangerous material.

Thank you for considering my request.

Lura Brookins
Santa Fe, N.M.

Correspondence #33

From: Mindy Mets
Sent: Thursday, February 9, 2023 8:32 AM
To: SPDP-EIS@nnsa.doe.gov
CC: Amy Merry
Subject: [EXTERNAL] SRSCRO Comments for Draft SPDP EIS
Attachments: SRSCRO Comments RE Draft EIS for SPDP.pdf
Dear Maxine,
Please find comments on the Draft SPDP EIS attached. Thanks,
Mindy

Mindy Mets
Director of Regional Workforce Programs SRS Community Reuse Organization
803-508-7403 (office) Mindy.Mets@srsro.org

Surplus Plutonium Disposition Program Final Environmental Impact Statement

COMMUNITY REUSE ORGANIZATION

two states, one future

February 9, 2023

Ms. Maxcine Maxted
NEPA Document Manager
National Nuclear Security Administration (NNSA)
Office of Material Management and Minimization
P.O. Box A
Aiken, South Carolina 29802
Sent by email to SPDP-EIS@nnsa.doe.gov

RE: Draft Environmental Impact Statement (EIS) for the Surplus Plutonium Disposition Program (SPDP) (DOE/EIS-0549)

Dear Ms. Maxted:

Our organization, the Savannah River Site Community Reuse Organization (SRSCRO), welcomes the opportunity for the Savannah River Site (SRS) to be considered for the Surplus Plutonium Disposition Program (SPDP). **[Comment 33-1][Response 5.3]** We believe SRS has the capability to perform this mission and we are always open to increasing enduring missions at SRS. In addition, SRS has been operating safely in our community for almost 70 years. SRS has the benefit of ample space to retrofit and expand existing facilities for the project.

The SRSCRO is comprised of leaders from the two-state region surrounding SRS. The SRSCRO is the U. S. Department of Energy's designated Community Reuse Organization for SRS and is governed by a 22-member Board of Directors composed of business, local government and academic leaders from Georgia and South Carolina. We are a 501(c)(3) private, non-profit organization charged with developing and implementing a comprehensive strategy to diversify the economy of a designated five-county region. SRSCRO counties include Aiken, Allendale and Barnwell in South Carolina and Richmond (Augusta) and Columbia counties in Georgia. The SRSCRO is focused on new missions at SRS and ensuring the Site maintains its role as part of this nation's national security structure.

[Comment 33-2][Response 5.3] SRS is well suited to support the Surplus Plutonium Disposition Program in many important areas, including:

1. A supportive and welcoming host community.
2. A strong program of worker and public safety and environmental protection, which consistently places SRS as a leader among DOE sites. Safety and environmental protection are core values at SRS and provide an important basis for surety of programmatic operations.
3. A skilled workforce with hands-on experience in large-scale plutonium operations.
4. A superb national laboratory. The Savannah River National Laboratory (SRNL) has a long history of directly supporting plutonium, a key advantage as new facilities or processes come online.
5. The SRS security posture is excellent.

Correspondence

6. A customer-oriented outlook, which has resulted in a flawless record of on-time product delivery to the weapons complex and the active stockpile.

The community vision for SRS includes continued and long-term DOE programs as part of our diverse regional economic base. Our citizens are proud of our past contributions to national security, and we want to continue to play a major role in meeting security and defense needs.

[Comment 33-3][Response 5.4] We support the Savannah River Site as a highly qualified and safe place for the Surplus Plutonium Disposition Program as part of the National Nuclear Security Administration (NNSA) Preferred Alternative to use the dilute and dispose strategy for 34 MT of surplus plutonium. We understand that NNSA has developed four sub-alternatives for the Preferred Alternative based on the location of activities.

We believe that the Savannah River Site has the infrastructure, capacity, safety record, skilled workforce, and community support to successfully serve as the "All Savannah River Site (SRS) Sub-Alternative." We understand that this approach would use only capabilities at SRS for the entire disposition pathway prior to shipment to the WIPP facility. The "All SRS Sub-Alternative" option will improve the continuity of operations and decrease unnecessary shipments.

[Comment 33-4][Response 25.2]

According to NNSA's Draft EIS for the SPDP, hundreds of new jobs could be needed to support this sub-alternative. Unlike many communities in our world today, the communities surrounding SRS are poised to support this effort. The SRSCRO is already working in concert with NNSA, local technical colleges, universities and Historically Black Colleges and Universities to help local citizens develop skills for the jobs needed to support current SRS missions. Our community is well-positioned to build on this established workforce development capability to support Savannah River Site's role in SPDP.

[Comment 33-5][Response 9.6] In addition, it is worthy to note that the dilution and disposal of 34 MT of surplus plutonium will take nearly three decades. During that time, more mature and proven technologies may evolve. NNSA should periodically evaluate and consider new, emerging technologies that may expedite the safe and secure disposition of 34 MT of plutonium.

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program.

Sincerely,

Mindy Mets
Director of Regional Workforce Programs
SRS Community Reuse Organization (SRSCRO)

Correspondence #34

From: spdp-eis Sent: Friday, February 10, 2023 12:50 PM
To: ^PNNL SPDP EIS; GALAN, JEFFREY J (SRS)
Subject: FW: Opposition to Environmental Impact Statement Attachments: [EXTERNAL]
Opposition to Environmental Impact Statement

Surplus Plutonium Disposition Program Final Environmental Impact Statement

From: pat mccormick
Sent: Friday, February 10, 2023 12:50 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Opposition to Environmental Impact Statement

To Whom It May Concern:

[Comment 34-1][Response 5.5] I am TOTALLY opposed to any plan or execution of transfer or storage of plutonium across TX, NM, SC and God only knows how many major states and cities in between.

[Comment 34-2][Response 26.1] The DOD is responsible for manufacturing nuclear weapons and are now stuck with what to do with the decades-long consequences of said immoral decisions. The EPA is now left holding the bag of where on God's earth to bury and secure plutonium and many other anti-human chemical materials.

No, No, No transporting plutonium across our precious land.

Sincerely,
Patricia McCormick
Denver, Colorado

Sent from my iPad

Correspondence #35

From: Kathleen Corbett
Sent: Friday, February 10, 2023 7:35 PM
To: spd-p-eis@nnsa.doe.gov
Subject: [EXTERNAL] Hazardous material passing through NM

[Comment 35-1][Response 5.5] Please no more hazardous material going back and forth through the wonderful Land of Enchantment! It's past time to put a stop to this!

Thank you for considering how wrong it is to be contemplating action with such deadly potential!

Gratefully,
Sister Kathleen

Correspondence #36

From: Alicia Ramirez
Sent: Saturday, February 11, 2023 6:33 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] transport of hazardous material

[Comment 36-1][Response 7.4] Please do not transport hazardous material through parts of New Mexico.. Keep it where it was produced and hereafter do not store this poison. Aram

Correspondence

Correspondence #37

From: Mary Swain
Sent: Sunday, February 12, 2023 1:02 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Plutonium disposal site in New Mexico
Attachments: CCE_000057.pdf

Loretto Motherhouse
515 Nerinx Road
Nerinx, KY 40049-9999

February 11 , 2023

National Nuclear Security Administration Office of
Material Management and Minimization Savannah River Site
P.O. Box A Bldg. 730-2B, Rm. 328
Aiken, SC

Dear Director and Staff of the Administrative Office,

[Comment 37-1][Response 5.5] We understand that you, The National Nuclear Security Administration, have proposed a draft environmental impact statement for a surplus plutonium disposition program (SPDP) proposing to store 74,900 pounds of plutonium at the Waste Isolation Pilot Plant disposal site in New Mexico. We read that the plutonium would travel from Texas to Los Alamos, N.M., to be made into plutonium oxide (which cannot be recaptured if spilled), to Savannah River, S.C., for further treatment and back to New Mexico. Highly hazardous plutonium would pass at least twice through Albuquerque, Santa Fe and Las Cruces.

We have a long history in New Mexico as teachers, since 1852. We ask you to call off this program.

Sincerely,

##Note: This correspondence was signed by 23 individuals whose names/handwritten signatures are shown below.##

Sincerely

Randy Papp, SL
Alicia Ramirez, SL
Pauline Albini, SL
Mary Anne, SL
Rita Bruentagen
Mawson Fiedler, SL
Marty Kay Brannan
Pat Frucht
Madene Speer, SL
John Pates
Susan Charney
Bernie & Andy, S.V.

Catherine Lyle
Eileen Cusky, SL
Janet Rabideau
Mary Gutierrez
Donna Mattingly
Dee K. Leba, SL
Marta Anderson
Elisa Rodriguez, S.L.
Johanna Brian, SL
Barbara Schulte, SL
Cecilia Alon, SL

Correspondence #38

Transcription of Audio Comment received via Voicemail

Commentor: Larry Long
Affiliation: Environmental Protection Agency, Region 4
Date & Time Received: 02/13/2023 8:45 AM

Hi Maxine. This is Larry Long with the Environmental Protection Agency in Atlanta Region 4. We'd like to set up a call with the you guys to talk about our comments before we send them out.

Please send me an e-mail, long.larry@epa.gov, so I can set up a teams meeting and whoever you want to have on that meeting, we have some significant questions on the alternative section of the report that we would like to talk to you about prior to the issuing our comment letter.

Again, it's Larry Long, Environmental Protection Agency and my e-mail is long.larry@epa.gov. Thank you. Bye.

Correspondence #39-1

From: Tami Thatcher
Sent: Monday, February 13, 2023 6:46 PM
To: SPDP-EIS@NNSA.DOE.gov
Subject: [EXTERNAL] Public comment on Draft SPDP EIS (DOE/EIS-0549)
Attachments: CommentSurplusPu2023.pdf

Correspondence

Please find attached public comment from Tami Thatcher

On the U.S. Department of Energy and NNSA Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program (Draft SPDP EIS) (DOE/EIS-0549).

Thanks,
Tami Thatcher Idaho Falls, Idaho

Public Comment Submittal from Tami Thatcher to the U.S. Department of Energy and National Nuclear Security Administration (NNSA) regarding the Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program (Draft SPDP EIS) (DOE/EIS-0549)

Comment submittal due February 14, 2023, to SPDP-EIS@NNSA.DOE.gov

Background

The Department of Energy's National Nuclear Security Administration (NNSA) is involved in nuclear weapons development and production and is seeking to "disposition" 34 metric tons of surplus plutonium. This Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program (Draft SPDP EIS) (DOE/EIS-0549) includes the disposal of 34 metric tons of surplus plutonium from nuclear weapon pits and also from non-pit surplus plutonium.

The NNSA is focused on dilute and disposal of just 34 metric tons because of an agreement with the Russian Federation made in 2000. There is over 61.5 metric tons of acknowledged U.S. surplus plutonium. Disposition, now defined as "disposal" in the Draft SPDP EIS, of 34 metric tons of surplus plutonium, still leaves over 27 metric tons of surplus plutonium to be used or diverted for nuclear weapons, enough for thousands of nuclear weapons. In addition, the DOE wants to import surplus plutonium into the U.S. for the Versatile Test Reactor.

Previously, about 33 metric tons of surplus plutonium was to be made into Mixed-Oxide (MOX) fuel and used in commercial nuclear power reactors. The cost of the MOX fuel fabrication facility, partially constructed at the Savannah River Site (SRS), spiraled out of control and in addition, no U.S. nuclear plants wanted the fuel. The Department of Energy cancelled the MOX fuel fabrication facility in 2018. Burning the surplus plutonium in U.S. reactors has now been ruled out as a means of "dispositioning" the surplus plutonium.

This Draft SPDP EIS plan evaluates disposal of 34 metric tons of an unspecified amount of pit and of non-pit surplus plutonium. Less pit plutonium would be disposed of, if more non-pit plutonium is disposed of. The total amount of surplus plutonium would not exceed 34 metric tons, in this draft EIS.

This draft SPDP EIS largely involves plutonium pit disassembly and non-pit plutonium disposition at either the Los Alamos National Laboratory (LANL) or the Savannah River Site (SRS) or a combination of both. The surplus plutonium would then be shipped to the Waste Isolation Pilot Plant (WIPP) in New Mexico for disposal.

Expanded nuclear weapons pit production for new weapons is also currently planned to increase at both LANL and SRS. Congress has mandated production of 80 pits per year, with 30 pits per year at LANL and 50 pits per year at SRS, by 2030. It is already acknowledged that the SRS site will not meet that production goal and this can be expected to put even more pressure on LANL. No new plutonium production, via nuclear reactor plutonium production, is planned.

This draft SPDP EIS acknowledges some pit disassembly work that is done at LANL already and also the heat source plutonium-238 work at LANL for space missions.

Comment Summary

The Department of Energy's National Nuclear Security Administration (NNSA) has issued, last December 2022, its latest draft Surplus Plutonium Disposition Program Environmental Impact Statement (DOE/EIS-0549).¹ The Draft SPDP EIS includes the disposal of 34 metric tons of surplus plutonium from nuclear weapon pits and also from non-pit surplus plutonium.

¹ Department of Energy's National Nuclear Security Administration, Surplus Plutonium Disposition Program Environmental Impact Statement (DOE/EIS-0549), issued December 2022. Public comments accepted until February 14, 2023. See <https://www.energy.gov/nepa/articles/doeeis-0549-draft-environmental-impact-statement-december-2022> and <https://www.federalregister.gov/documents/2022/12/16/2022-27152/notice-of-availability-of-draft-environmental-impact-statement-for-the-surplus-plutonium-disposition>

[Comment 39-1-1][Response 5.5]

In this draft SPDP EIS, the NNSA falsely asserts that adding work scope to the already struggling Los Alamos National Laboratory (LANL) would be done "without impact to other [LANL] programs."

The NNSA in a November 2022 hearing conducted by the Defense Nuclear Facilities Safety Board² explained its tardy or cancelled safety upgrades at LANL by saying that in the U.S. it is difficult to get work done, and hiring and retaining workers is extremely difficult at LANL. Read more in the Environmental Defense Institute newsletters for December 2022 and January 2023 "Recap of the egregious safety shortcuts at LANL" at www.Environmental-Defense-Institute.org

² Defense Nuclear Facilities Safety Review Board website at dnfsb.gov, November 16, 2022 meeting on the Los Alamos National Laboratory, see meeting agenda, videos, exhibits for cleanup and increased pit production and other information on the dnfsb.gov webpage <https://www.dnfsb.gov/public-hearings-meetings/november-16-2022-public-hearing>.

At the November hearing, the NNSA explained that it was accepting accident radiological doses to the public from an accident at LANL's PF-4 that far exceeded what Department of Energy requirements would normally allow. Normally, safety class systems would be required to assure that doses to the public remained below 25 rem. A 25-rem inhalation dose to the public would involve an obscenely high release of radioactivity that would remain in the environment basically, forever. **But the DOE and NNSA invoked the**

"exigent circumstances" processes to allow doses to the offsite public to exceed a whopping 3000 rem. A radiation inhalation dose exceeding 400 rem is typically considered lethal.

The excuses for accepting such high accident consequences to the public (and also lethal doses to an undetermined number of the 1000 workers at LANL's PF-4) included that the NNSA found it hard to procure a few needed seismically restrained gloveboxes. And NNSA found it inconvenient to implement meaningful limits on the material-at-risk (MAR), implement meaningful combustible loading controls, or complete other long-needed safety upgrades.

However, the NNSA excused its lack of safety by assuring the DNFSB and those attending the meeting that the NNSA "was working very closely with the Department of Defense."

[Comment 39-1-2][Response 5.5] The NNSA's latest surplus plutonium disposition draft EIS states that the added work scope for LANL will require additional gloveboxes, additional workers, and scheduling shifts of workers 24 hour a day, 7 days a week. With the already expanding nuclear weapons pit production work, the added plutonium disposition work will most certainly create significantly more safety problems at the already overloaded plutonium facility, PF4, at LANL.

The draft EIS includes a variety of options, "sub-alternatives," in its "preferred" option. The weapons pit disassembly work could be conducted only at LANL, only at the Savannah River Site, or a combination. Similarly, the non-pit surplus plutonium work could be conducted only at LANL, only at the Savannah River Site, or a combination, even though the non-pit material is already at SRS.

[Comment 39-1-3][Response 15.11] The November 2022 hearing exhibits by the DNFSB pointed out that the public is located only about 0.6 miles from LANL's PF-4 facility while the nearest offsite public is located about 6 miles from the facilities at SRS. There are roughly 690,000 people within 50 miles of SRS and roughly 990,000 people within 60 miles of LANL. The 2022 draft EIS states that there are 343,000 people living within 50 miles of PF-4, which gives a false portrayal of the significance of the size of the communities surrounding LANL.

[Comment 39-1-4][Response 17.1] The draft EIS fails to provide any status of the documented safety analyses which continue to be tardy as well as technically indefensible, or of the status of long-awaited safety upgrades at LANL's PF-4. In fact, the draft EIS simply points to a biased, inadequate and out-of-date 2015 Final Surplus Plutonium Disposition Supplemental EIS, Appendix D. The 2022 draft surplus plutonium disposition EIS simply does not include basic information about the many facility accidents or the assumptions made, but points to the tangled and out-of-date material in the 2015 EIS.

The 2015 EIS had generally found it more reasonable to chose assumptions to hack and slash the leak path factor used in the DOE's safety analyses by a factor of ten to reduce the accident consequences. The reality is that the DOE's safety analyses leak path factors would probably be more realistic and appropriate if increased by a factor of 10!

The failure to provide needed accident analysis assumptions in the December 2022 draft EIS creates significant ambiguity when trying to sort out what was assumed by searching in the 2015 EIS. The 2015 EIS Appendix D analysis of human health effects and the accident consequences at LANL and SRS gave DOE's documented safety analysis results from over a decade ago, and also gave the reduced consequence estimates as deemed more appropriate by the 2015 EIS authors. Then the December 2022 EIS appeared to pick and choose sometimes the older DOE consequences and sometimes the reduced 2015 consequence estimates, all without explanation. The adjustment of values in the 2022 EIS makes it all the more difficult to compare to the 2015 EIS. And an up-to-date status of LANL upgrades and cancelled safety upgrades is simply not provided in the 2022 draft EIS.

Many statements, used by reference to the 2015 EIS, assert that DOE's rigorous safety requirements would be met and would assure low radiation doses to the public. But, in light of NNSA's recent use of the "exigent circumstances" processes at LANL to accept far higher accident risks and to continue to delay or outright cancel needed safety upgrades shows that these statements in the 2022 Draft SPDP EIS are fiction and simply not true.

Nuclear safety basis documentation for DOE nuclear facilities is relied upon for the protection of workers, the public and the environment. The fact is that LANL is decades behind in developing documented safety analyses that are Code of Federal Regulations 10 CFR 830, "Nuclear Safety Management" compliant for Department of Energy nuclear facilities, decades behind in completing nuclear facility safety upgrades and also decades behind in addressing its already existing nuclear waste problems is not addressed in this 2022 Draft SPDP EIS.

The status of completed safety upgrades, planned safety upgrades and canceled safety upgrades is completely lacking from the 2022 Draft SPDP EIS. The 2022 Draft SPDP EIS points to the 2015 EIS's Appendix D, that is completely inadequate because it was out-of-date when issued in 2015, seven years ago.

For LANL, in 2022, they still have not prepared and submitted for approval nuclear safety basis documents that would meet the intent of 10 CFR 830 for cleanup of existing above-ground waste. LANL lacks the plans and processes, as well as the safety analyses for needed LANL waste exhumation and disposal of problematic legacy radioactive (transuranic) waste. The 2022 Draft SPDP EIS ignores the realities of the accident risks from transuranic waste storage and the failure to adequately address the leach out of radionuclides and chemicals from already improperly stored waste at LANL.

[Comment 39-1-5][Response 8.3]

This Draft SPDP EIS disposes of the 34 metric tons of surplus plutonium at the Waste Isolation Pilot Plant (WIPP) salt mine in New Mexico but without analysis of the already overcommitted WIPP for nuclear weapons related "defense waste." The 2022 Draft SPDP EIS ignores previous commitments to the State of Mexico. This Draft SPDP EIS adds a tremendous increase in the plutonium disposal at WIPP. And it does so, without any criticality analysis or repository safety analysis for the greatly increased amount and concentration of plutonium.

[Comment 39-1-6][Response 17.1] To recap, this Draft SPDP EIS proports to examine facility accident risks, yet it uses out-of-date Department of Energy documented safety

analysis (DSAs), and biased and inadequate previous EIS accident analyses. The Draft SPDP EIS fails to provide an up-to-date status of completed safety upgrades, of current operations, or of currently acknowledged obscenely high risk acceptance to the off-site public near LANL.

[Comment 39-1-7][Response 17.1] Specifically, the NNSA has now acknowledged accepting mitigated offsite public radiation doses far exceeding 25 rem, in excess of 3000 rem. This is nowhere to be found in the Draft SPDP EIS nor its referral to the 2015 Supplemental EIS, the out-of-date and quite inadequate 2015 Final Surplus Plutonium Disposition Supplement EIS, Appendix D (DOE/EIS-0283-S2, Volume 2, April 2015) [herein referred to as the "2015 EIS"].

The NNSA has acknowledged at the November 2022 DNFSB hearing that it finds safety upgrades too inconvenient and it had recently used the "exigent circumstances" processes to allow radiation doses to the public in excess of 3000 rem. It is commonly considered that radiation doses exceeding 400 rem would be lethal within weeks of exposure. The Draft SPDP EIS must explain why this information was omitted, yet it made it appear that all facility accident risks were included.

[Comment 39-1-8][Response 26.1] In summary, this Draft SPDP EIS is completely inadequate and further leads to inadequate protection of the public by omission of the truth, by inadequately addressing nuclear accident risks, by inadequately addressing the truth of past and ongoing nuclear contamination from routine operations, the unsafe transuranic waste storage issues and the long-overdue waste disposal and storage issues. The 2022 Draft SPDP EIS grows the problems faced by humanity, particularly by the people in New Mexico, from the Department of Energy and the NNSA's irresponsible stewardship, all while falsely claiming that DOE's requirements can be relied upon to assure public, worker and environmental safety.

The Draft SPDP EIS Must Provide Up-to-Date Accident Risks at LANL's PF-4

[Comment 39-1-9][Response 17.1] This draft SPDP EIS completely obscures the serious safety problems existing at LANL. The safety problems at LANL for large airborne radiological releases have been known for at least two decades. The risk to workers at LANL's PF-4 facility and to the public is so inaccurately portrayed in the draft SPDP EIS it must be completely scrapped and redone.

This draft SPDP EIS incorrectly understates the radiological accidents associated with any operations burdens at LANL. This draft SPDP EIS is technically indefensible, incomplete and inadequate. Perhaps the authors did not notice it, because they simply assumed that the 2015 EIS (Appendix D) was adequate and they didn't know the status of operations and safety upgrades at LANL.

The draft SPDP EIS does not include an up-to-date status of operations and of safety upgrades or of the continued tardiness in obtaining 10 CFR 830 compliant documented safety analyses for LANL operations.

The doses to the offsite public from an accident at LANL don't just exceed 25 rem, the level at which DOE was required to provide adequate safety systems. This doses to the offsite

public do not just exceed 100 rem. The radiation doses to the public actually, according to the DOE and NNSA in November 2022, actually exceed 3000 rem, from the Pu-238 heat source operations conducted in gloveboxes that are not seismically restrained from tipping over.

[Comment 39-1-10][Response 17.1] This sham of an EIS fails to acknowledge that actual deferment or cancellation of needed safety upgrades at LANL's PF-4. It relies on out-of-date documents and improvised and un-scrutinized assumptions that are simply guesses as to ways to lower the stated estimates of accident consequences.

At LANL, many needed safety upgrades have been deferred, have needed rework, or have simply been cancelled because NNSA considered it too inconvenient and too expensive to protect workers, citizens and property in New Mexico.

Even before the additional surplus plutonium disposition work, NNSA had deemed it too difficult to require seismically restrained gloveboxes or to implement stringent combustible loading controls or to make meaningful reductions in the amount of material at risk (MAR). NNSA is putting the public at risk in New Mexico.

This draft SPDP EIS does not include an updated status of the safety upgrades that have been recognized as needed at LANL. Instead, this draft SPDP EIS points to the 2015 EIS that is now over 7 years out of date. This SPDP EIS must include an up-to-date status of safety upgrades and operations. New safety deficiencies have been found since the 2015 EIS was written.

[Comment 39-1-11][Response 17.1] The 2015 EIS and the draft SPDP EIS argue that the documented safety analyses (DSAs) are just too conservative and therefore accident consequences from DOE-approved DSAs may need to be reduced in order to be more "realistic." Given the pressure on reducing conservatism in DOE DSAs, the biased and technically indefensible assumptions tossed in by EIS authors to whack down the accident consequences is hardly reliable. See Table 1 below for a comparison of the plutonium-equivalent grams of material at risk (MAR) and the estimates of the grams released. In the first accident in the table, with 2.6 million grams of plutonium-equivalent, it is assumed that only 2.36 grams PuE is released, far lower than had been stated in DOE's safety basis, of 82 PuE.

##Note: Commenter included a "Table 1. Example of LANL material-at-risk and source term, grams of plutonium mixture," which is not depicted here.##

No accident scenarios at LANL that are included in the 2022 draft SPDP EIS include the now acknowledged higher radiological dose consequences of heat source Pu-238 operations.

An August 2022 letter from the DNFSB to DOE states that the National Nuclear Security Administration (NNSA) has accepted **the extraordinarily high mitigated offsite dose consequences range from 490 to 3175 rem, via the "exigent circumstances processes."** Typically, radiation doses above about 400 rem are considered lethal. Vast areas would become permanently uninhabitable and citizens will die because of the extraordinary and irresponsible lack of adequate safety mitigations.

So, let me repeat, the 2022 Draft SPDP EIS accident analysis is not bounding and is not truthful. There is not only great complexity, there are factual disconnects between the 2022 accident analysis and the 2015 EIS, Appendix D that has been adopted into the 2022 Draft SPDP EIS.

Delayed Safety Analysis and Safety Upgrades at LANL

[Comment 39-1-12][Response 17.1] NNSA has now been tardy for two decades and has failed to provide updated and 10 CFR 830 compliant documented safety analyses.

NNSA, has made improvements to the PF-4 building at LANL to prevent its collapse in a modest earthquake. They have also seismically upgraded specific gloveboxes, but only those that hold molten materials.

Safety upgrades identified as needed at PF-4 since 2009 continue to be delayed or eliminated completely from project planning.³

³ Los Alamos National Laboratory, *SSUP* [Safety System Upgrade Project] *Project Implementation Plan*, Revision 0, Los Alamos National Laboratory, Los Alamos, NM, March 2009

I think there is reason to believe the delays in providing needed nuclear safety upgrades at PF-4 may continue beyond the now-stated 2026 timeframe (See Exhibits for the NNSA session, particularly Exhibit 30 from the November 2022 DNFSB hearing.) The permanent loss of lives and homes due to a large radiological release from PF-4 could be the result of NNSA's shortcutting safety. Radiological releases to the offsite public are unacceptable. Accident conditions will likely result in unacceptable worker intakes of radionuclides as well.

The NNSA did not provide a coherent status of LANL safety upgrade status at the DNFSB. An updated and complete status must be provided in the EIS.

The Department of Energy nuclear safety regulations do not require a coherent assessment of facility accident risk and that is not compensated for by whacking down the dose consequences with guesses about what leak path factor is more "realistic."

Over two decades ago, in January of 2001, the Department of Energy's Code of Federal Regulations 10 CFR 830, "Nuclear Safety Management" for Department of Energy nuclear facilities. DOE nuclear facilities were to have submitted a compliant nuclear safety basis to DOE by October 10, 2001. And these submittals were to include all types of facilities accidents, including seismically induced accidents and other natural phenomena hazards specific to the location of the facility.

And although many submittals were later than October 2001, LANL is setting records in tardiness in completing upgraded "documented safety analysis" for LANL's plutonium facility, PF-4 (as well as LANL's cleanup operations).

Some DOE nuclear facilities in the DOE Complex sought and achieved updated nuclear safety basis documents that met the intent of 10 CFR 830 and did so before 2005.

Other DOE nuclear facilities, such as plutonium facilities in Idaho at the Materials and Fuels

Complex at the Idaho National Laboratory and at the plutonium facilities at the Los Alamos National Laboratory in New Mexico, did not prepare nuclear safety basis upgrades that met the intent of 10 CFR 830 and had not done so by 2011 and even now.

For LANL, in 2022, they still have not prepared an submitted for approval nuclear safety basis documents that would meet the intent of 10 CFR 830 for cleanup of existing above-ground waste. LANL lacks the plans and processes, as well as the safety analyses for needed LANL waste exhumation and disposal of problematic legacy radioactive (transuranic) waste.

Continued Fiddling With Accident Severity Estimates in EISs and by DOE Does Not Assure Reliable Radiological Release Estimates

[Comment 39-1-13][Response 17.1] Nuclear safety basis documentation for DOE nuclear facilities is relied upon for the protection of workers, the public and the environment. At the Idaho National Laboratory, the facilities that were tardy in submitting upgraded seemed to search for clever ways to lower estimated worker and offsite public radiation doses. Year after year, they searched for ways to excuse themselves from making safety improvements and ways to avoid the inconvenience and cost of making safety improvements to mitigate accidents and prevent significant offsite radiological releases.

A similar thing seems to be continuing at LANL, even now, in the 2022 draft SPDP EIS. The analysis to obtain a desirable building leak path factor for PF-4 remains an ongoing effort at LANL. The objective is to achieve the lowest offsite public dose by "pencil whipping" the problem to claim that the offsite dose to the public is below 25 rem.

At the Idaho National Laboratory (INL), at its Materials and Fuels Complex (previously known as ANL-West), indefensible choices were made in the documented safety analysis in the selection of DOE handbook values (DOE Handbook, DOE-HDBK-3010-94). The airborne release fraction from the DOE Handbook is used to determine the amount of material that could become airborne during an accident. Technically indefensible choices made by INL's contractor Battelle Energy Alliance were approved by the Department of Energy when the choices lowered the estimated accident consequences. Despite considerable expertise around the DOE Complex, these problem plutonium facilities seem to prefer in-house teams dedicated to do whatever finagling possible to lower the estimated accident consequences (and likelihoods). The DOE's documented safety analyses are typically not made publicly available.

At the INL, technically indefensible estimates of accident likelihood were made and approved by the Department of Energy. The accident likelihood and consequence at the Materials and Fuels Complex Zero Power Physics Reactor facility, in 2011, had been low-balled in technically indefensible ways. Analysis of potential worker doses were not evaluated at any appropriate level of detail, yet the documented safety analysis was approved by DOE.

Technically indefensible choices made in the 2015 and 2022 surplus plutonium EISs have been made in order to lower the accident consequences. What is needed are safety upgrades at LANL's PF-4.

Needed Safety Upgrades at LANL's PF-4

[Comment 39-1-14][Response 17.10] At LANL, year after year, and actually for at least two decades, needed safety upgrades to protect the public have been talked about but very few changes made. There have been improvements to the seismic capability of the PF-4 building and to certain gloveboxes, but only to the glove boxes that handle molten material.

At LANL, completion of the improvements to the fire suppression system has been delayed to 2026 (see Exhibit 30 for the hearing). Completion of efforts to address aging components for the ventilation system have also been delayed to 2026 (also see Exhibit 30).

Despite some seismic bracing for some gloveboxes at PF-4, many, probably most gloveboxes at PF-4 remain vulnerable to seismic events because they are not seismically braced. And some of these gloveboxes handle powders or solutions of material.

It is telling that at INL, the dismantling of a Pu-238 glovebox shipped to Idaho from Mound – an empty glovebox – coincided with elevated detections of Pu-238 miles from the operation of preparing the glovebox for disposal, in 2018. DOE never has admitted to the source of the elevated environmental contamination.

[Comment 39-1-15][Response 17.10] The amount of material at risk, or MAR, is the amount of radiological material that is handled and can be involved in an accident leading to airborne release. And the NNSA has approved very large amounts of material at risk that will be allowed to be handled and in vulnerable conditions, despite the gloveboxes not being seismically braced and the fire suppression system not being seismically capable and the confinement ventilation system not being safety class or seismically capable.

And the DNFSB points out that even the relatively easy measures to help reduce the offsite public dose consequences were not taken. These measures include specific, meaningful and enforced combustible loading limits that were not put in place for high hazard heat source plutonium (Pu-238) work. These measures also include limiting the amount, (grams or curies) of material-at-risk allowed in unsafe configurations and this would have reduced the offsite public dose consequences but also were not put in place at PF-4.

The years of delays in making needed safety upgrades to protect workers, the offsite public and the environment display an erroneous LANL and NNSA group think that seismic events and other accidents won't happen. Or is it related to a perverse discounting of the true harm to people's health and lives from these events?

The DNFSB is allowed to make recommendations but has no authority to make DOE or NNSA act responsibly. The vigorous responses by the panelists at the November 2022 DNFSB hearing that included NNSA, LANL and its contractors were intended to defend the lack of progress in completing needed safety upgrades and acceptance of outrageously high levels of risk. The excuse making was extensive but the progress on needed safety upgrades was not.

While building structural improvements are said to have been made to LANL plutonium

facility, PF-4, the Department of Energy allows meeting seismic performance category 3 (PC-3) for non-reactor facilities. The actual amount of plutonium that could be released and high likelihood of an accident at PF-4 would actually require, by technically appropriate rationale, meeting the more stringent PC-4 seismic performance category required of nuclear reactors.

And in reality, this Draft SPDP EIS ignores the fact that much of the equipment in PF4, both safety related and non-safety related, it appears, will likely not survive a PC-2 seismic event. And also ignored is that non-safety equipment may be able to degrade the performance of safety equipment during a seismic event.

It can be easy for managers to be motivated to dismiss the importance of a large seismic event that may be very expensive to mitigate. But some of the safety measures are not so expensive and the DOE simply does not require itself to conduct comprehensive investigations for assessment of accident risk, especially seismically-induced accident risks.

Status of Safety Upgrades for PF-4

[Comment 39-1-16][Response 27.5]

At LANL, the plutonium handling facility, PF-4, is expected to increase operations and staffing for weapons pit production, continue heat source plutonium (Pu-238) operations for defense and space missions, and other plutonium research.

At PF-4, safety deficiencies were certainly recognized by 2001, although a detailed plan was not published until 2009. ⁴ The safety upgrades are needed to protect the offsite public from a large airborne radiological release that would exceed 25 rem. Worker safety was not mentioned at the November 16 public hearing, but would also be affected by the inadequate documented safety analyses for cleanup of transuranic waste operations as well as PF-4 operations.

⁴ Defense Nuclear Facilities Safety Board letter to the Department of Energy, Secretary James Richard Perry, dated November 15, 2019, which transmits the DNFSB Staff Report "Safety Basis for the Plutonium Facility at Los Alamos National Laboratory," August 16, 2019, at DNFSB.gov

The heat source Pu-238 is used for National Aeronautics and Space Administration (NASA) missions and defense missions. ⁵ The plutonium glovebox work for the heat source (Pu-238) creates the risk of very high radiological releases to the offsite public and was stated in the hearing on November 16, 2022 as posing the offsite public radiation dose **roughly 200 times higher than for weapons pit production.**

⁵ Defense Nuclear Facilities Safety Board letter to the Department of Energy, Secretary Jennifer Granholm, dated August 11, 2022, which transmits the DNFSB Staff Report "Receipt and Repackaging of Large Amounts of Heat Source Plutonium at the Los Alamos National Laboratory Plutonium Facility," May 27, 2022, at DNFSB.gov

During the November public hearing, the status of safety upgrades and prudent safety controls was not always clear. Certain upgrades may be in progress but yet not be slated to be completed until 2026. The 2022 Draft SPDP EIS is even less clear about the status of

long-needed safety upgrades than the November DNFSB hearing discussion by NNSA.

[Comment 39-1-17][Response 17.10] At PF-4, remaining safety upgrades include needed fire barriers, fire sprinkler lines, and the removal of firewater lines to buildings that are not non-seismically capable of PC-3 events. The upgrade of fire suppression system power supplies from diesel generators and their often-deficient fuel supply lines, is also apparently needed.

At PF-4, it has long been known that many gloveboxes still need safety upgrades for seismic restraint (rated to PC-3), including gloveboxes containing liquid solutions of plutonium and powders and other forms.

And at PF-4, remaining safety upgrades for the confinement ventilation system are needed, but may never be performed. If there was ever a DOE facility that needed a safety class confinement ventilation system, LANL's PF-4 is such a facility because (1) of the far greater than 25 rem offsite dose without it and (2) there are about 1000 workers in PF-4 now and that number is expected to grow.

A procedure to evacuate and to verify closure of the doors to the facility PF-4 facility would still be needed, in case this was a PC-4 earthquake or other adverse condition. But the closure of the doors at PF-4 would not be as important if a confinement ventilation system were collecting the airborne plutonium in HEPA filters rather than spewing it to the offsite public living near PF-4.

What happens if the door won't close due to structural damage or just a bad latch? What is odd about PF-4 is that while they are claiming that the structure has been upgraded to PC-3, this typically does not mean that the building would remain leak tight.

What happens if the HEPA filters are damaged, say by a fire in the building. Are the fans going to blow the contamination out the stack? There is a need for systems that can detect what is happening and what areas are contaminated. There needs to not be reliance on the fortuitous failure of the fans, should they continue to be operable. And there is a need to monitor the door closure status and the need for effective radiological monitoring.

I am curious as to how the evacuating workers will know where the radiological releases are blowing to. And where will contaminated workers go to be decontaminated, chelated and lung counted?

The high levels of many decay products from Pu-238 and uranium tend to create the need for tailoring constant air monitoring systems to avoid alarming during routine operations. A constant air monitor set to alarm on high levels of plutonium-239 may not alarm on high levels of Pu-238 or of high levels of americium-241.

At the Idaho National Laboratory, the handling of americium-241 and its airborne spread in a laboratory was missed because the constant air monitor was set to alarm on Pu-239. And although the CAM did alarm on the Am-241, its error message of "poor fit" made the facility workers believe it was a false alarm. It was only weeks later when the filter for the air monitor were examined, that they realized there had been an elevated release that exposed workers.

[Comment 39-1-18][Response 15.8] The challenges of detecting the different plutonium isotopes and associated progeny and associated radionuclides that may accompany the plutonium should not be dismissed at PF-4, especially for the wide variety and evolving missions at PF-4.

Seasoned professionals trained to recognize and monitor 'weapons grade' pit plutonium-239 may not expect the radionuclide compositions present in 'fuel grade' materials that have higher plutonium-240, plutonium-241 and higher americium-241. Worker intakes of plutonium-241 were ignored in the 2011 plutonium event at INL, yet this can be a significant dose impact for ingrowth of Am-241 in the body after inhalation.

The multiple missions existing at PF-4 and the evolving and increased level of pit production and other missions at PF-4 will complicate the detection of radiological releases and the needed preparation for medical attention for workers who inhale various plutonium airborne materials.

And as with the radiological emergencies that have occurred at Idaho at MFC in 2011 and the four waste drums that popped their lids and expelled their contents due to incompatible materials in 2018, workers were put in harms way. Inadequate characterization of the waste materials in the drums was allowed, despite warnings that the materials could contain beryllium. Addressing beryllium in the waste was inconvenient, and so the incompatible materials had been deliberately ignored. And despite the unusual waste composition of unreacted uranium metal, less care rather than more care was taken with the unusual waste stream. Care was taken to not refer to the pyrophoric metal uranium as a pyrophoric material, however. My point is that accidents can happen without a seismic event and subsequent fire.

At the 2018 event at the INL cleanup project with four drums that ejected their contents (operated by Fluor Idaho), the radiological air monitor was so clogged with material it did not alarm. There was a fire alarm and emergency responders had no idea that they were responding to a radiological event. And once there, there were no personnel who knew what operations had been performed that day and no operations personnel with self-contained breathing apparatus qualifications.

Public Risks Far Higher Than Stated

[Comment 39-1-19][Response 17.1] Rather than provide clear and detailed status of safety upgrades or approved and compliant documented safety analyses, this draft SPDP EIS relies on an inadequate EIS from 2015.

LANL's PF-4 accident consequences have greatly increased since 2015. The draft SPDP EIS should explain why the DOE still has not developed a 10 CFR 830 compliant DSA for PF-4, that is now two decades late, rather than blow bluster that the DOE's DSA's – that are not 10 CFR 830 compliant – are just deemed overly conservative by the anointed EIS authors.

The draft SPDP EIS must state the actual and up-to-date status of safety upgrades. It needs to not take credit for any safety upgrade that has not taken place. It needs to clearly explain its assumptions and exactly how it justifies the factor of ten or so reductions in

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accident consequences from the DOE-approved yet not 10 CFR 830 compliant DSA for LANL.

When the draft SPDP EIS states that for new facilities, such as they would build at SRS, fully compliant and up-to-date safety standards would apply. But at LANL, since its an existing facility, such non-compliance, even with existing DOE regulations is not described.

This draft SPDP EIS must state and explain that currently the DOE/NNSA is involving the "exigent circumstances" processes at LANL's PF-4 and cancelling previously committed to safety upgrades in order to conduct work with obscenely high accident doses to the public without seeking meaningful material-at-risk limits or other safety mitigations at LANL's PF-4.

The DOE/NNSA draft SPDP EIS is greatly understating the overall accident risks and individual accident risks at LANL's PF-4 facility.

When the draft SPDP EIS states that total facility inventory in PF-4 was included (in the beyond-design-basis earthquake with building collapse and fire), it made a false statement (Table D-3, for example). The draft SPDP EIS Table D-3 states the public dose as 122 rem at the site boundary, despite a far higher dose potentially occurring from heat source Pu-238 operations at PF-4.

It is now known that the accident consequences from a heat source Pu-238 accident are far greater than stated in the draft SPDP EIS. The draft SPDP EIS states that the maximum dose from LANL's PF-4 for the entire facility inventory of material at risk (MAR) would be 122 rem to the public, the "maximally exposed individual" (MEI) at the boundary. Yet, we know that the accident consequences to the person at the boundary of the LANL would be far higher, and above the dose considered to be fatal, or 400 rem. The heat source Pu-238 operations at PF-4 pose a potential radiation inhalation dose of over 3000 rem to the offsite public.

Deceptive Depiction of Department of Energy Enforcement of Regulations

[Comment 39-1-20][Response 17.1] What the draft SPDP EIS emphasizes about *overly conservative* Department of Energy DSAs, which are supposedly relied upon to protect workers and the public, simply isn't true. The reductions in radiation releases from potential accidents that the draft SPDP EIS puts forth are unjustified and inadequately reviewed or scrutinized. The draft SPDP EIS, as the 2015 EIS did, puts forth conjecture and hubris depicted as the more reasonable assessment of facility risk to the workers and public than the inadequate and non-compliant yet DOE-approved DSAs.

Correspondence #39-2 (continuation of 39-1)

Discoveries of Potential Inadequacies in the Safety Analysis

[Comment 39-2-1][Response 17.9] When it is discovered that an accident at a DOE nuclear facility is more likely to occur or would have worse consequences than previously stated in the approved documented safety analysis, this is called a "Potential Inadequacy in the Safety Analysis" or PISA. There have been two dozen PISAs associated with LANL's cleanup operations. The LANL cleanup operations documented safety analysis has still not

been upgraded to meet the 10 CFR 830 regulations Issued two decades "go. Excuses that the older safety analysis are adequate yet just not "modern" display ignorance of the importance of adequate documented safety analyses to protect workers, the public and the environment. **[Comment 39-2-2][Response 8.3]** LANL's continued struggling with cleanup and backlog of shipments to WIPP is ignored in the 2022 Draft SPDP EIS.

In addition, the fact that LANL's improper and noncompliant packaging of transuranic waste caused the 2014 accident at WIPP involving chemical incompatibility and explosion of a waste drum in WIPP that caused its 3-year closure was not discussed.

[Comment 39-2-3][Response 24.1] In conclusion, LANL's continued failure to provide 10 CFR 830 compliant documented safety analyses for plutonium operations at PF-4 and for associated increased transuranic waste management for LANL cleanup operations puts workers and the public at risk. The increased work for surplus plutonium disposition adds to worker load and the workers needed for the increased waste generated by LANL.

Smaller PC-2 Seismic Events Should Not Be Ignored

[Comment 39-2-4][Response 17.5] The problem often overlooked is that the more frequent but less severe seismic events also need to be mitigated. Preventing the failure of equipment at the more likely PC-2 seismic event (less severe than the PC-3 or PC-4 seismic event) may be very important to worker and public safety.

This means that equipment, including gloveboxes, that is likely to topple or not function following a rather mild or moderate (PC-2) earthquake, and at the relatively high likelihood of a relatively mild PC-2 seismic event. **This means that the PC-2 seismic events need to be carefully considered for worker and offsite public protection, as well as larger seismic events (such as PC-3 or PC-4).**

Instead, decisionmakers may convince themselves that the worst earthquake, coupled with a fire, is "bounding" and not likely to occur. The mistake they make is to ignore the more likely but less severe seismic events. So, the NNSA accepts the bounding PC-3 seismic event when it should actually consider the more severe PC-4 seismic event, and they must aggressively work to mitigate the more likely PC-2 but less severe seismic events.

The earthquake level that would take out commercial power, with possible vulnerabilities at a switchyard ought to be estimated, particularly for older switchyard equipment. The adequacy of backup power for radiation monitoring, as well as fire suppression systems and confinement ventilation need to be considered. Few requirements for backup power for radiation monitoring have been enforced at DOE facilities for years.

Seismic Failure or Movement of Non-safety Equipment Should Not Be Ignored

The unrestrained large rolling tool boxes and other seismically unrestrained equipment at PF4 indicates a lack of understanding and a lack of comprehensive accident scenario evaluation of seismic vulnerabilities at PF-4.

"Two-over-one" analyses have long been recognized in the nuclear industry and even by the DOE. The "two-over-one" analyses are the need to recognize when non-safety equipment

can degrade safety equipment, and that would include impeding safe and prompt evacuation. Data on how fast workers can evacuate, when the workers are primed and ready for the drill has little meaning in a real event, no matter how deftly a panelist can avoid directly answering the question posed by the DNFSB.

Unwise Reliance on Integrated Safety Management to Compensate for Inadequate Nuclear Safety Analysis

[Comment 39-2-5][Response 15.10] At the Idaho National Laboratory, at MFC, unrealistic assumptions regarding worker evacuation and doses to workers were made, despite many unheeded recommendations to provide more thorough evaluations of worker safety. At INL, the philosophy was adopted that rigorous "Integrated Safety Management" of work processes would compensate for the inadequate nuclear safety basis or documents referred to as "documented safety analysis" or DSAs.

In practice, at INL's MFC, the documented safety analysis that was known to not meet the intent of 10 CFR 830 but this documentation was used and in fact relied upon to train workers and nuclear facility management. And the technically indefensible safety basis was effective in providing false reassurance to workers and work planners and radiological control personnel.

When these DOE nuclear facilities take years or decades to attempt to upgrade their documented safety analyses, why would DOE expect that adequate nuclear safety expertise would somehow become abundantly available for ad hoc work planning?

At INL, technically indefensible calculations that underestimated the potential accident radiation doses also can and did mislead facility managers as well as work planners at INL's MFC for handling plutonium materials.

Integrated Safety Management would not typically initiate a seismic analysis or putting needed safety upgrades in place. The safety analysts who are years behind on completing the safety analysis upgrades are not necessarily available or qualified to assist with work planning.

The draft SPDP EIS should explain that facility managers, operations personnel and radiological control people are all trained and qualified on, inadequate safety analyses for LANL.

[Comment 39-2-6][Response 17.11] The accident at the Idaho National Laboratory on November 8, 2011 at the Materials and Fuels Complex (MFC), at the Zero Power Physics Reactor (ZPPR) where defective plates were handled in a malfunctioning fume hood, involved the DOE-approved yet inadequate documented safety basis for the facility. 6 The draft SPDP EIS must explain why the lessons learned from the INL's MFC accident at the ZPPR are not understood around the DOE Complex. This SPDP EIS must explain why no technical analysis supported the particle sizes of plutonium material inhaled. This SPD EIS must explain why plutonium-241 inhalation is still ignoring the americium ingrowth in the body, and so many of the other lessons that should have been learned by the 2011 plutonium inhalation event at the INL.

⁶ U.S. Department of Energy Office of Health, Safety and Security Accident Investigation Report, *Plutonium Contamination in the Zero Power Physics Reactor Facility at the Idaho National Laboratory, November 8, 2011*, January 2012. See page 14, page E-6, and E-8.

Technology Review Out-of-Date and Inadequate

[Comment 39-2-7][Response 5.1] It must also be pointed out that the technology review for the SPDP EIS is extremely out-of-date and technically inconsistent with other current DOE actions and promotions and investments by DOE. By this draft SPDP EIS, out-of-date and technically inadequate information does not explain DOE's push for sodium-cooled reactors or the Versatile Test Reactor. In fact, by this SPDP EIS, these would be ruled out (and they should be ruled out). But these plutonium reactors have in fact not been ruled out as DOE continues to provide incentives and funding support for them.

The proposed materials testing reactor, the Versatile Test Reactor, being promoted by DOE would be a sodium-cooled, fast-neutron-spectrum test reactor to test how materials withstand intense neutron bombardment that would be encountered in fast-neutron reactors. [See the Draft Versatile Test Reactor Environmental Impact Statement (DOE/EIS-0542).] ⁷ According to the technology review in the draft SPDP EIS, the VTR would not be viable.

⁷ Public Draft Versatile Test Reactor Environmental Impact Statement (DOE/EIS-0542) at <https://www.energy.gov/ne/downloads/public-draft-versatile-test-reactor-environmental-impact-statement-doeeis-0542> (Announced December 21, 2020)

GE Hitachi Nuclear Energy is working with the Idaho National Laboratory on the VTR conceptual design based on its PRISM reactor, which was based on the Experimental Breeder II reactor. ⁸ The EBR II which was operated by Argonne National Laboratory – West at the Idaho site which is now the Materials and Fuels Complex at the INL, although the EBR II has been dismantled.

⁸ Press Release, GE Hitachi, "GE Hitachi and PRISM Selected for U.S. Department of Energy's Versatile Test Reactor Program," November 13, 2018. <https://www.ge.com/news/press-releases/ge-hitachi-and-prism-selected-us-department-energys-versatile-test-reactor-program>

Basically, the technology review in the draft SPDP EIS is excuse-making and not based on an adequate and up-to-date review.

Wildfire Risk and the Increased Risk of Release from Outdoor Storage or Indoor Storage of Drums

[Comment 39-2-8][Response 17.3] Wildfire risks at LANL are claimed to be addressed by removal of brush and vegetation. And yet, the standoff areas appear to be far too small to protect facilities. (See DNFSB exhibits 2 and 9 for the EM session of the November 2022 hearing.) The consequences of the higher number of waste drums, the difficulty managing the storage and/or shipping of an increased number of waste drums must be addressed by the EIS.

EIS Must Describe the Long Backlog of Transuranic Waste Cleanup at LANL and How New Programs Will Adversely Affect the Backlog of Shipments Already Slated for WIPP

[Comment 39-2-9][Response 24.2] Regarding above-ground transuranic waste, the status in November 2022 was that LANL has 2200 transuranic waste drums with 450 waste drums deemed shippable to WIPP. Of the 450 waste drums, about 170 waste drums have been certified as meeting the criteria for WIPP. The remaining 1550 transuranic waste drums – and this does not include buried waste – require remediation. LANL has goals of sending 30 to 40 shipments of perhaps 17 drums per shipment to WIPP each year.

The processes and facilities for remediation of above-ground waste drums at LANL do not exist. And the processes and facilities for addressing the buried waste at LANL do not exist. The amount of buried waste at LANL was not discussed.

The now planned expansion of nuclear weapons pit production will greatly add to amount of newly generated waste. LANL officials refused to disclose the current amount of LANL's newly generated waste from existing operations. Now the addition of surplus plutonium disposition in the draft SPDP EIS would add tremendously to LANL's workload and waste creation.

Again, it cannot be emphasized enough just how inadequate the draft SPDP EIS is, when it falsely claims that the added surplus plutonium disposition work will not impact other LANL programs. LANL's waste programs for legacy and the waste from current operations is already deeply behind.

Hiring new workers is already challenging at LANL and it takes time to train workers and even longer for workers to mature and understand their safety roles. Attrition is high, with worker attrition acknowledged to be 25% at LANL's cleanup project (from the November 2022 DNFSB hearing). Increased pit production work at LANL will require even more workers. Now NNSA wants to add to that, the surplus plutonium disposition work in the draft SPDP EIS. The importance of a mature and well-trained workforce in preventing accidents at nuclear facilities cannot be overstated.

Inadequate Assessment of Repository Safety at WIPP

[Comment 39-2-10][Response 8.2]

The ease at which the Department of Energy and NNSA have sought to undermine its own agreements with the State of New Mexico regarding the number of years of operation and the total waste emplaced at the WIPP facility is also egregious and yet typical of the DOE is its focus on always making more nuclear weapons without bothering to actually evaluate the availability or cost of "disposition" or long-term storage.

[Comment 39-2-11][Response 8.3] While deep geological disposal of plutonium might be the best alternative we are aware of, the DOE has a long history of inadequate geological assessment of radionuclide migration from the repository and of criticality risks in the repository.

[Comment 39-2-12][Response 27.8] The DOE was actively promoting borehole disposal of Idaho's radioactive calcine material despite state's such as North and South

Dakota prohibiting the research or the disposal of it.

The DOE was actively promoting surplus plutonium disposal at the proposed but never constructed Yucca Mountain disposal facility, claiming the criticality risk was negligible or acceptable, without ever calculating what that criticality risk actually was. It turned out that the criticality risk from surplus plutonium (as well as higher burnup fuels being used in U.S. nuclear reactors) was very high.

[Comment 39-2-13][Response 8.3] The criticality risk of surplus plutonium, at the Waste Isolation Pilot Plant (WIPP), needs to be fully addressed and peer reviewed. The “criticality over packs” or CCO’s the DOE would shove surplus plutonium into and dispose of into WIPP may be helpful in the short-term but do not assure adequate repository safety in the near or distant future.

[Comment 39-2-14][Response 8.3]
The National Academies of Sciences (NAS) released a review of the DOE’s surplus weapons plutonium disposal plan in May 2020.^{9 10} **The NAS found that disposal of the surplus weapons plutonium at WIPP was viable, but “would fundamentally change the nature of the geologic repository, which raises social, environmental, and technical questions.”** The review by NAS does not include technical review of essential elements: pre-and post-closure ability of the WIPP repository to contain the waste or for criticality safety.

9 National Academies: Disposing of surplus plutonium at WIPP viable, webpage, May 4, 2020,
<https://www.ans.org/news/article-142/national-academies-disposing-of-surplus-plutonium-at-wipp-viable/>

10 The National Academies of Sciences, Engineering and Medicine, “Review of the Department of Energy’s Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant,” April 2020.
<https://www.nap.edu/catalog/25593/review-of-the-department-of-energys-plans-for-disposal-of-surplus-plutonium-in-the-waste-isolation-pilot-plant>

An estimated at 5.36 metric tons of plutonium had already been disposed of at WIPP as of September 30, 2019, according to the NAS review. This apparently includes 3.2 MT of surplus plutonium already disposed of. But the NAS review also stated that there was 4.8 MT of surplus plutonium “material” from Rocky Flats disposed of at WIPP (see page 73 of NAS review) that is not included in the 48.2 MT of surplus plutonium nor does it seem to be included in the WIPP disposal figure as of September 30, 2019.

To recap, the NAS review to determine the viability of the DOE’s plan to dispose of vast amounts of additional waste, different chemical form, hazard level, concentration, and affect on the repository – was performed by pressing the “I believe” button on the repository performance and safety, without scrutinizing these essential aspects of the plan.

The NAS report does provide some clarity on limited aspects of the plan; however, the review’s sweeping proclamation of “viable” should be withdrawn because the review was not

conducted at the level of technical detail needed to make such a sweeping proclamation.

Let me also point out that this NAS review put on display a complete ignorance of radiation health at the most basic levels. The NAS report incorrectly states on page 17 that the federal drinking water maximum contaminant level (MCL) for total alpha radioactivity is 0.15 picocuries per liter. **The MCL for gross alpha in drinking water is 15 picocuries per liter.** Then the NAS review proceeds to compare the acute lethal quantity of plutonium to the drinking water MCL, presumably to show how safe vast amounts of plutonium in drinking water would be, as long as cancer risk, birth defects and other health effects are completely ignored. The NAS reviewers also imply that the half-life of plutonium-239 is indicative of the end of radionuclide trickle-out concerns. There is also no discussion of the inadequacy of regulations for the repository which do not apply for the duration of time the waste is radiotoxic. The regulations are arbitrarily limited to 10,000 years.

This NAS review and particularly the NAS webpage for the report should include the disclaimer that no attempt was made to assure the validity of DOE's assertions of safety, pre-or post-closure, of the WIPP repository from DOE's plan to greatly increase the waste emplaced in WIPP and to include vastly higher amounts of surplus weapons plutonium.

The 98hyroids weapons plutonium will require down-blending (or diluting), which could take place at the Savannah River Site or at Los Alamos National Laboratories (LANL) in New Mexico, prior to disposal at WIPP.

The Plutonium Management and Disposition Agreement (PMDA) requires the U.S. and Russia to each dispose of 34 metric tons of surplus plutonium by blending the plutonium with uranium oxide to make "mixed oxide" MOX fuel to be used in nuclear reactors. But the MOX fuel fabrication facility under construction in South Carolina at the Savannah River Site was canceled in 2018 due to escalating construction costs and lack of any U.S. utility wanting the MOX fuel.

[Comment 39-2-15][Response 27.4] The plan to dilute and dispose of 34 metric tons of surplus plutonium at WIPP is estimated to take 31 years and \$18.2 billion to complete. But despite being considered a viable solution, the NAS report highlighted concerns over not meeting the requirements for plutonium disposition as agreed to with Russian, statutory and expansion of physical capacities at WIPP, and the life extension needed for WIPP. **[Comment 39-2-16][Response 4.2]** It is also a concern that the dilution processes have not been demonstrated at the scale that will be required. And the security requirements to verify disposal of the weapons plutonium have not been developed.

[Comment 39-2-17][Response 27.8] The NAS report (Chapter 5.2) acknowledged that the Department of Energy had included disposal 98hyroids weapons plutonium in the inventory for the environmental assessments of Yucca Mountain, in the form of MOX and/or vitrified high-level waste. No funding has been provided for Yucca Mountain since 2010. The DOE had also announced its deep borehole disposal demonstration program, also discussed for plutonium disposal, was terminated in 2017.

Assessment of the capacity of WIPP to confine the waste is expected to be managed by Sandia National Laboratory. This is the laboratory that finagled the models of radiological releases so successfully for the Yucca Mountain License

Application to the U.S. Nuclear Regulatory Commission.

For the disposal of spent nuclear fuel, high-level waste and surplus plutonium slated for the Yucca Mountain repository, there were years of hand-wringing over the difficulty of meeting post-closure radiation dose limits from the trickle-out of groundwater laden with radionuclides from the dissolving radioactive waste.

But something would happen to drastically lower the Department of Energy's trickle out problem and radiation doses between 2007 and 2008 when the DOE submitted its license application for Yucca Mountain to the NRC. I had trouble understanding how the predicted doses dropped from a couple hundred millirem to less than 1 mrem/yr for post-10,000-year time frame. Both the earlier and later submittals had assumed perfect titanium drip shield performance, despite the implausibility of ever installing them in the repository.

The problem of the estimated high radionuclide trickle out from Yucca Mountain ended when Sandia took over the modeling of radionuclide trickle out and elected to squash the assumed water infiltration rates through the proposed Yucca Mountain repository. **A review of Sandia's modeling for Yucca Mountain that yielded estimates of low radiation doses from water contamination from the trickle out of radionuclides found that the Sandia models were technically indefensible.**¹¹

¹¹ Senate Hearing 109-523, Yucca Mountain Repository Project, May 16, 2006.
<https://www.govinfo.gov/content/pkg/CHRG-109shrg29473/html/CHRG-109shrg29473.htm>

That independent review of DOE's calculations had been contracted by the DOE but withheld from the State of Nevada. The review's conclusion was that the Department of Energy's modeling, by Sandia, of water infiltration to the disposed of waste **did not provide a credible representation of water infiltration at Yucca Mountain.**

In other words, because the periodic spikes in water infiltration had raised the estimated radiation dose, the water infiltration spikes were simply removed from the modeling in order to drive the estimated radiation exposures down. The contamination trickle-out problem that had previously estimated 95th percentile radiation doses above 1000 mrem/yr (yes, one thousand mrem/yr) and would struggle to meet the 100 mrem/yr median requirement by EPA regulations now had contrived the modeling to slash the estimated radiation dose to a person living 15 km (or 11 miles) downgradient to less than 1 mrem/yr.¹²

¹² Letter from Council for the State of Nevada to Secretary of the U.S. Nuclear Regulatory Commission, State of Nevada's Supplement to its June 4, 2008 Petition Asking the NRC to Reject DOE's Yucca Mountain License Application as Unauthorized and Substantially Incomplete, July 21, 2008. The letter cites the review of DOE's infiltration model performed at DOE's request by ORISE (Oak Ridge Institute for Science and Education). ORISE provided the results of this independent review to DOE on April 30, 2008.
<http://www.state.nv.us/nucwaste/news2008/pdf/nv080721nrc.pdf>

And the other problem that the Department of Energy made disappear, with regard to the disposal of surplus plutonium at the proposed Yucca Mountain Repository, was that of criticality concerns.

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The Department of Energy's originally envisioned inventory for Yucca Mountain had included 2 percent enriched commercial spent nuclear fuel and the residual vitrified waste from reprocessing at West Valley. It was expanded substantially when the Navy ceased reprocessing the high enriched naval and DOE research fuels by 1992 and it meant that now these fuels would require disposal. And it was another substantial change when the DOE identified the surplus weapons plutonium, potentially for disposal at Yucca Mountain.

Two scientists from Los Alamos National Laboratory would explain how the plutonium-239 posed a particularly high criticality risk at Yucca Mountain.^{13 14} The Department of Energy has continued to argue that while criticality is possible at Yucca Mountain, it is sufficiently unlikely and of unimportant consequence if it does occur.¹⁵ But the risk of criticality posed by the disposal of surplus weapons plutonium (and spent nuclear fuel) at Yucca Mountain is substantial and not to be casually dismissed, no matter how emphatically the DOE tries to arm-wave the risk away. **[Comment 39-2-18][Response 8.3] And in addition, the criticality risks remain after 10,000 years, yet there is no regulatory requirement to assess or limit the criticality risk after 10,000 years, either at Yucca Mountain or WIPP.**

¹³ C. D. Bowman and F. Venneri, Los Alamos National Laboratory, Underground Autocatalytic Criticality from Plutonium and Other Fissile Material, LA-UR 94-4022, 1994.

¹⁴ C. D. Bowman, Los Alamos National Laboratory, Underground Supercriticality from Plutonium and Other Fissile Material, LA-UR-94-4022A, 1994.

¹⁵ Rob P. Rechard et al., Sandia National Laboratory, Consideration of Criticality when Directly Disposing Highly Enriched Spent Nuclear Fuel in Unsaturated Tuff: Bounding Estimates, May 1996.

The lack of technical credibility by the Department of Energy in its Yucca Mountain License Application speaks volumes about the technical credibility of DOE's assessment of WIPP repository performance. The disposal of surplus weapons plutonium at WIPP, perhaps up to 48.2 metric tons of plutonium, has caused a renewed look at the potential for criticality accidents at WIPP and more detailed assessment than the sweeping screening arguments used for WIPP in the past. New criticality safety assessments for WIPP have noted that measures such as boron carbide additives or load management may be needed for the disposal of surplus weapons plutonium, yet the NAS review points out there has been little transparency or scrutiny of the criticality assessments. Complicating the problem is that WIPP drums are known to be overloaded with more plutonium (and fissile gram equivalents) than is officially assumed and this was verified by the extensive contamination caused by explosion of a single drum in 2014. The Idaho National Laboratory has also streamlined the waste verification of what's in the drums shipped to WIPP to the point of actively ignoring neutron reflecting material, beryllium.

Correspondence #39-3 (continuation of 39-1)

[Comment 39-3-1][Response 8.3] The tendency for the Department of Energy to force its repository performance analyses and criticality analyses to obtain the desired answers for both pre-closure and post-closure assessment, which it did to a technically unjustifiable extent for the Yucca Mountain License Application to the

NRC, means that the DOE's performance assessment for WIPP cannot be trusted. The State of New Mexico must insist on a very thorough and independent review of the proposed expanded WIPP mission.

[Comment 39-3-2][Response 8.4]

The NAS review stated that the Department of Energy also wants to use WIPP to dispose of spent nuclear fuel reprocessing waste from its operations at the Idaho National Laboratory and Hanford; greater-than-class-C and greater-than-class-C-like waste; and additional future pit production waste (see pages 64 and 65 of the NAS review). Not mentioned were the DOE's desire to dispose of naval spent nuclear fuel at WIPP or the direct disposal of commercial nuclear spent fuel which the DOE has continued to study.

The observations documented in the 2020 NAS review are worth reading but must not be regarded as a comprehensive review of the impacts on WIPP repository performance or safety nor should the NAS conclusion that the DOE's plan is viable be accepted.

[Comment 39-3-3][Response 26.1] It must be understood that DOE has no credibility when it comes to assessing geologic repository safety and adequacy.

To actually properly and safely dispose of surplus plutonium and to do it and other operations at LANL and SRS and do it safely would be a proper and responsible act. But this sham Draft SPDP EIS assures quite the opposite.

Deficient Worker Safety Analyses

[Comment 39-3-4][Response 17.7] The draft SPDP EIS fails to state the number of workers impacted, injured and/or killed by an accident at PF-4. There may be about 1000 workers at PF-4 or more. In an evacuation, the wind direction can and does change at Los Alamos National Laboratory. How will chelation and other medical assistance be provided to perhaps hundreds of workers with serious plutonium inhalation doses?

[Comment 39-3-5][Response 27.3] The accident at the Idaho National Laboratory in 2011 involved 16 workers and that completely overloaded the INL. There was not enough chelation IV treatments. The need for nasal swabs, urine analysis and lung counts for a modest event at PF-4 would be a serious problem. Apparently, the solution is to not mention it. Tell the vomiting workers that they have the flu. That's what DOE did in Idaho.

The Department of Energy at INL had for years recognized that work's safety for workers in the workroom at the MFC ZPPR facility regarding the plutonium inhalation hazard had not been properly addressed.¹⁶ Yet year after year, this was not addressed. Despite the problem in the safety analyses of the lack of defensible radiological dose consequences to in-facility workers being identified as recently as 2005, as of 2011, no in-facility dose evaluations for the Zero Power Physics Reactor facility had been conducted.

¹⁶ Robert Boston et al., Department of Energy, "Department of Energy Review of the Materials and Fuels Complex Documented Safety Analysis," Conference preprint, circa 2006. This paper states that in 2005 (when Battelle Energy Alliance took over ANL-W), it had been found that Materials and Fuels Complex documented safety analysis reports did not meet the safe harbor provisions of 10 CFR 830 Subpart B, Nuclear Safety Management Rule and upgrades would be a multiyear process. The problems identified include the use of mitigated accident evaluation rather than unmitigated and the lack of in-facility work dose consequence analysis. The ZPPR risk ranking is prioritized as the second highest of 7 facilities. The paper describes how the safety analysis process was to intentionally defer to the future any problems such as

references that cannot be found to support the accident analysis or quality or seismic capability of structures, systems and components. Reliance was to be placed on rigorous "Integrated Safety Management."

The Department of Energy, who approved of the unverified assumptions and inadequate analyses in the ZPPR safety analyses, would later, after the 2011 plutonium inhalation event, continue to direct blame to the workers in the facility who were doing exactly what they were directed to do. The training material developed after the 2011 plutonium inhalation event would be directed to those workers rather than to the management of the facility at INL's MFC, the safety analysts or the radiological control management.¹⁷ The fact that DOE did not correctly and comprehensively provide lessons learned from the 2011 plutonium inhalation event at INL's MFC to the DOE Complex is also telling of the delusional safety culture prevalent within DOE.

¹⁷ Department of Energy, Radiological Safety Training for Plutonium Facilities, DOE-HDBK-1145-2013, March 2013. This training material only faintly addresses the hydride problem with ZPPR fuel, the radiological control failures, the years of safety analyses errors, the misuse of the DOE-HDBK-3010 guidance and fails to address that management refused to act to protect workers from an identified expected event. The problem of underestimating the amount of buildup of radioactive powder and the health harm is not actually addressed by this terribly inadequate document which grossly misrepresents causes and consequences of the November 8, 2011 accident at the Idaho National Laboratory's Zero Power Physics Reactor facility.

[Comment 39-3-6][Response 17.7] The draft SPDP EIS does not address the number of workers affected by an accident and those numbers may be very large, far over a dozen workers. Table 4-6 of the draft SPDP EIS for worker doses only addresses routine operational doses to workers.

The draft SPDP EIS given the dose for a single worker at PF-4. There may be 1000 workers or more in the PF-4 building. There has been no attention given to realistic evacuation and emergency responder scenarios. How much chelation agent does LANL have on hand? How will workers evacuate to seek medical attention? What is it, to the NNSA, to have dozens or hundreds of workers at PF-4, permanently injured from a preventable plutonium inhalation event? Well, it seems to matter very little to the NNSA. And the draft SPDP EIS does not give any discussion of how many dozens or hundreds of workers may have their lives shortened, their unborn children harmed, their bone marrow and immunity impaired, and other adverse health effects from plutonium and americium inhalation.

Incorrect Statements of Plutonium-241 Hazard and Dose Consequences

[Comment 39-3-7][Response 15.8] Few reviewers of this draft SPDP EIS will look at the 2015 EIS. But among the false statements referenced in the 2015 EIS is that: "plutonium-241 is less hazardous."

The 2015 EIS acknowledges is "The relative inhalation hazard of americium-241 is higher than that of plutonium-239. As a result, the relative hazard of plutonium (and americium-241) materials is highly dependent on the composition of the plutonium isotopes, and more importantly, on the amount of americium-241 in the mixture."

The 2015 EIS and the 2022 draft SPDP EIS do not include that plutonium-241 decays to americium-241 inside the body after inhalation. Radiation dose assessments, since 2011 and before and probably since, have omitted to account for ingrowth of americium-241 from

the plutonium-241 inhaled. It is inexcusable that in 2022 the NNSA and DOE put forth an EIS that does not reflect this well-known understanding. This is especially important for plutonium mixtures of higher plutonium-240 and hence, higher plutonium-241 composition.

In fact, the higher the amount of plutonium-240, which is higher than 6 percent or perhaps higher than almost 9 percent, in weapons grade plutonium, increases the amount of plutonium

241. Over time, americium-241 ingrowth occurs in the stored material. But once inhaled, the decay of plutonium-241 to americium-241 also continues, as plutonium is highly retained in the lung, bone marrow, liver or gonads. It is just another example of extreme inattention to the human health harm by the DOE/NNSA from radiation.

Studies Find Higher Retention of Plutonium in the Body and Higher Dose Conversion Factors

[Comment 39-3-8][Response 17.1] More recent studies of plutonium inhalation have found even higher than previously thought retention in the body. The plutonium inhaled and moved to bone is recycled by the body and less is excreted than previously thought. The more recent, circa 2018 studies, have been ignored in the DOE/NNSA draft SPDP EIS.

While this draft SPDP EIS may assume Type M, moderate clearance, in practice following an actual event, DOE/NNSA may choose Type S clearance in order to lower the estimated dose.

Department of Energy plutonium and americium inhalation radiation doses from insoluble Type S material **have increased by a factor of about 2**, according to a 2019 report by the International Commission on Radiological Protection.¹⁸

¹⁸ International Commission on Radiological Protection, "Occupational Intakes of Radionuclides: Part 4, ICRP Publication 141. Ann. ICRP Volume 48, No. 2/3," 2019. ISSN 0146-6453. (Online report anib_48_23ICRPPart4.pdf). This series of reports replaces the ICRP Publication 30 series and Publications 54, 68, and 78 series.

[Comment 39-3-9][Response 27.3] Historically, most plutonium inhalation doses were associated with weapons grade plutonium at Department of Energy facilities including the former Rocky Flats weapons plant, the Hanford site in the state of Washington, the Y-12 Oak Ridge plant in Tennessee, the Los Alamos National Laboratory in New Mexico and the Savannah River Site in South Carolina. But not all plutonium and americium inhalation events are not necessarily similar to weapons grade plutonium. The 2011 plutonium inhalation event at the Idaho National Laboratory's Materials and Fuels Complex involving a plutonium mixed oxide plate at the Zero Power Physics Research Reactor (ZPPR). Radiation dose assessment for the 2011 accident assumed the material inhaled was Type S plutonium and americium.

The radiation dose assessment for the INL's 2011 accident at the Materials and Fuels Complex (MFC) assumed that the ZPPR mixed oxide plate was entirely Type S material rather than Type M which was normally assumed for the americium-241 portion of the dose. The dose predicted by Type M solubility is higher than for Type S solubility, as the higher solubility allows more material to be dispersed to bone and to the liver. And Department of Energy contractor Battelle Energy Alliance (BEA) also ignored the ingrowth of americium-241 from plutonium-241 retained in the body.

Highly insoluble weapons grade plutonium has less plutonium-241 to begin with and therefore less americium-241 ingrowth from plutonium-241 decay. But the mixed oxide fuel

plate at the ZPPR facility had far more plutonium-241 than weapons grade plutonium.

[Comment 39-3-10][Response 17.11] While non-pit surplus plutonium to be dispositioned in this draft SPDP EIS does not include ZPPR fuel, non-pit surplus plutonium can have higher Pu-240, Pu-241, Am-241 and Pu-238 than typical of weapons grade plutonium.

The 2019 ICRP report for actinides noted that plutonium-239 combined with uranium compounds appear to have different characteristics in the human body than plutonium oxide alone.

[Comment 39-3-11][Response 15.7] In the 2019 International Commission on Radiological Protection report, the inhalation dose coefficients for highly insoluble plutonium isotopes (Type S), prevalent at Department of Energy facilities, have increased by a factor of 1.5 to 2.0 "because of the revision of the biokinetic models, and a better description of the radionuclide retention and distribution in tissues."

This means that a worker's prior dose estimate may be low by a factor of 2. **[Comment 39-3-12][Response 15.8]** And in addition, the dose would be low due to unaccounted for americium-241 ingrowth from plutonium-241. The ZPPR plates had a very high amount of plutonium-241 relative to americium-241, as accounted for in 2011.

Plutonium may be encountered in a variety of chemical and physical forms, including oxides, metals, chlorides or nitrates, or other forms. Plutonium oxides (PuO₂) can be found in nuclear weapons materials or in mixed oxide (MOX) nuclear reactor fuels. The chloride or nitrate forms would typically be found at reprocessing facilities.

When plutonium-239 is created in a nuclear reactor by neutron absorption, plutonium-240 is also produced. And the longer the neutron bombardment in a reactor, the more plutonium-240 and plutonium-241 are created, relative to the plutonium-239 created. Plutonium-241 has a relatively short radioactive half-life (14.4 years) and it decays to americium-241. Americium-241 is actually more deadly than plutonium-239 when inhaled, ingested or entering the body due to a wound.

[Comment 39-3-13][Response 15.7] At the former Department of Energy nuclear weapons plant in Colorado, the Rocky Flats Plant, workers were found by autopsy to show very long lung retention of plutonium, corresponding to very highly insoluble (Type S) plutonium materials. Type S plutonium in the lungs means long retention times of plutonium (and americium) in the lungs.

Mixed oxide fuels, however, can contain much higher plutonium-238 as well as americium-241 levels than weapons grade plutonium, and can behave as much more soluble material, according to the 2019 ICRP report on actinides. While typically still characterized as Type S material, the mixed oxide fuels resulted in greater translocation to systemic organs in the body – such as bone tissue and the liver. In fact, transfer to bone and to the liver was found to be greater for mixed oxide fuels than that of simply plutonium oxide.

Plutonium-238 oxide has been found to be more soluble than plutonium-239 oxide in the 2019 ICRP report¹⁹ and this was also indicated by the disproportionately high plutonium-238 excreted in urine from the 2011 plutonium inhalation event at the Idaho National Laboratory.

¹⁹ International Commission on Radiological Protection, "Occupational Intakes of Radionuclides: Part 4, ICRP Publication 141. Ann. ICRP Volume 48, No. 2/3," 2019. ISSN 0146-6453. (Online report anib_48_23ICRPPart4.pdf). This series of reports replaces the ICRP Publication 30 series and Publications 54, 68, and 78 series. (See pages 221, 222.)

Perplexingly, it is not just a question of whether a material is Type M or Type S. Both plutonium and americium may have a fraction of the material that behaves as Type S and a fraction of material that behave as Type M. The question is not simply of whether a material is Type S or Type M, and it also depends on the specific details of the material's composition and form.

Material such as mixed oxide fuel contained in an oxygen deprived environment may include oxides as well as hydrides, according to the DOE Investigation report for the November 8, 2011 accident at the INL. ²⁰ However, after the material is stored before evaluation, it may not represent the chemical form that was predominately inhaled immediately after exposed to an oxygen-rich environment.

²⁰ U.S. Department of Energy Office of Health, Safety and Security Accident Investigation Report, *Plutonium Contamination in the Zero Power Physics Reactor Facility at the Idaho National Laboratory, November 8, 2011*, January 2012.

And even if a material, after oxidizing in an oxygen-rich environment, is later determined to be americium oxide of mostly Type S solubility characteristics, the ingrowth of americium-241 in the lungs or other tissues or organs in the body from the decay of plutonium-241 may be a more soluble Type M form, that yields a higher radiation dose in the body than that of Type S.

NNSA Continues to Ignore Radiation Protection Standards Protection of Women, Children and the Unborn

[Comment 39-3-14][Response 15.6] The higher risk to females than males is treated as acceptable by using a radiation cancer death (mortality) coefficient not protective of adult females. And the high risk to children, especially to female children and to the unborn, is not reflected in this Draft SPDP EIS.

Before the late 1990s, radiation risks to females were generally treated as roughly equal to the radiation risks to males. But by the late 1990s, studies of the survivors of the atomic bombing of Japan in 1945 by the International Commission on Radiation Protection (ICRP) had higher radiation risk harm to women than men, for the same dose. And the studies showed higher cancer risk to children, especially female children, than to adults for the same dose. The National Research Council BEIR VII report issued in 2006 found even higher risks to women and children. See Institute for Energy and Environmental Research (IEER.org) report, *Science for the Vulnerable*, for additional insight. ²¹ (Read more in the August 2020 Environmental Defense Newsletter at Environmental-Defense-Institute.org)

²¹ Arjun Makhijani, Ph.D., Brice Smith, Ph.D., Michael C. Thorne, Ph.D., Institute for Energy and Environmental Research, *Science for the Vulnerable Setting Radiation and Multiple Exposure Environmental Health Standards to Protect Those Most at Risk*, October 19, 2006.

[Comment 39-3-15][Response 15.1]

DOE actively ignores the current scientific evidence of radiation health harm. The Department of Energy's accepted modeling of health risk from radionuclide emissions (routine or from accidents) actively ignores diverse, compelling human epidemiology. I have been told that the reason is "that somebody high up has decided that the benefit of

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changing the radiation protection standards isn't worth the cost." This basic description comes from university professors and INL lab directors. Basically, the Department of Energy has decided that protecting your health, or your child's health or protecting human beings in the future from its growing inventory of radioactive waste just isn't worth the cost. It would, after all, increase the cost of nuclear waste disposal and it would require reducing airborne emissions from its facilities.

The 106hyroidical endpoint focus for the Department of Energy is cancer mortality and not the increased harm to reproductive health.

The 106hyroidic as well as 106hyroidon workers need to keep in mind that, despite what they may have been taught:

* The cancer risk is not reduced when radiation doses are received in small increments, as the nuclear industry has long assumed.²²

²² Richardson, David B., et al., "Risk of cancer from occupational exposure to ionizing radiation: retrospective cohort study of workers in France, the United Kingdom, and the United States (INWORKS), *BMJ*, v. 351 (October 15, 2015), at <http://www.bmj.com/content/351/bmj.h5359> Richardson et al 2015 This cohort study included 308,297 workers in the nuclear industry.

* Despite the repeated refrain that the harm from doses below 10 rem cannot be discerned, multiple and diverse studies from human epidemiology continue to find elevated cancer risks below 10 rem and from low-dose-rate exposure.²³

²³ US EPA 2015 <http://www.regulations.gov/#!documentDetail;D=NRC-2015-0057-0436> . For important low-dose radiation epidemiology see also John W. Gofman M.D., Ph.D. book and online summary of low dose human epidemiology in "Radiation-Induced Cancer from Low-Dose Exposure: An Independent Analysis," Committee for Nuclear Responsibility, Inc., 1990, <http://www.ratical.org/radiation/CNR/RIC/chp21.txt> And see EDI's April 2016 newsletter for Ian Goddard's summary and listing of important human epidemiology concerning low dose radiation exposure.

* The adverse health effects of ionizing radiation are not limited to the increased risk of cancer and leukemia. Ionizing radiation is also a contributor to a wide range of chronic illnesses including heart disease and brain or neurological diseases.

The public and radiation workers take cues from their management that they should not be concerned about the tiny and easily shielded beta and alpha particles. DOE-funded fact sheets often spend more verbiage discussing natural sources of radiation than admitting the vast amounts of radioactive waste created by the DOE. The tone and the meta-message from the DOE, the nuclear industry, is that if you are educated about the risks, then you'll understand that the risks are low. Yet, these agencies continue to deny the continuing accumulation of compelling and diverse human epidemiological evidence that the harm of ingesting radionuclides is greater than they've been claiming.

[Comment 39-3-16][Response 15.1] Radiation worker training programs are typically horribly inadequate. In radworker training, there may be discussion of the fact that international radiation worker protection recommends only 2 rem per year, not 5 rem per year. There is no mention of recent human epidemiology showing the harm of radiation is higher than previously thought and at low doses, below 400 mrem annually to adult workers, increased cancer risk occurs.²⁴

²⁴ Richardson, David B., et al., "Risk of cancer from occupational exposure to ionizing radiation: retrospective cohort study of workers in France, the United Kingdom, and the United States (INWORKS), *BMJ*, v. 351 (October 15, 2015), at <http://www.bmj.com/content/351/bmj.h5359> Richardson et al 2015 This cohort study included 308,297 workers in the nuclear industry.

There is no mention of the oxidative stress caused as ionizing radiation strips electrons off atoms or molecules in the body at energies far exceeding normal biological energy levels. And there is no discussion explaining the harm of inhaling or ingesting radioactive particles of fission products such as cesium-137, strontium-90, or iodine-131; of activation products such as cobalt-60; or transuranics such as plutonium and americium; or of the uranium itself.

The hypothetical harm that ionizing radiation may cause to DNA is mentioned sometimes but it is emphasized that usually the DNA simply are repaired by the body. And the training to radiation workers will mention that fruit flies exposed to radiation passed genetic mutations to their offspring but workers are told that this phenomenon has never been seen in humans even though, sadly, the human evidence of genetic effects has continued to accumulate. Birth defects and children more susceptible to cancer are the result.

[Comment 39-3-17][Response 15.1] Gulf War veterans who inhaled depleted uranium have children with birth defects at much higher-than-normal rate. The same kinds of birth defects also became prevalent in the countries where citizens were exposed to depleted uranium. There are accounts to suggest that the actual number of birth defects resulting from the World War II atomic bombs dropped on Japan and by weapons testing over the Marshall Islands have been underreported. The Department of Energy early on made the decision not to track birth defects resulting from its workers or exposed populations. But people living near Hanford and near Oak Ridge know of increased birth defects in those communities.

The nuclear industry, including the Department of Energy, is wrong to use the International Commission on Radiological Protection (ICRP) treatment of heritable disease. While the ICRP continues to say that "Radiation induced heritable disease has not been demonstrated in human populations," Chris Busby writes that evidence of genetic effects has been found in humans and at very low radiation doses. 25 26

²⁵ Chris Busby, *The Ecologist*, "It's not just cancer! Radiation, genomic instability and heritable genetic damage," March 17, 2016. <https://theecologist.org/2016/mar/17/its-not-just-cancer-radiation-genomic-instability-andheritable-genetic-damage>

²⁶ Chris Busby, Scientific Secretary, European Committee on Radiation Risk, Presentation, *Radioactive discharges from the proposed Forsmark nuclear waste disposal project in Sweden and European Law*, September 8, 2017. Online pdf 646_Nacka_TR_M1333-11_Aktbil_646_Christopher_Busby_presentation_170908

Robin Whyte wrote in the *British Medical Journal* in 1992 about the effect in neonatal (1 month) mortality and stillbirths in the United States and also in the United Kingdom. The rise in strontium-90 from nuclear weapons testing from 1950 to 1964 has been closely correlated, geographically, with excess fetal and infant deaths. The doses from strontium-90 due to atmospheric nuclear weapons testing were less than 50 millirem (or 0.5 millisievert), according to Chris Busby. Radioactive fallout from atmospheric nuclear weapons testing would not only include strontium-90, it would include iodine-131, tritium, cesium-137, and

other radionuclides, including plutonium.²⁷ The extent of the nuclear weapons testing immorality continues to astound me and I applaud the work being done to reduce the risk of human extinction from nuclear weapons.²⁸

²⁷ R. K. Whyte, *British Medical Journal*, "First day neonatal mortality since 1935: re-examination of the Cross hypothesis," Volume 304, February 8, 1992.

<https://www.bmj.com/content/bmj/304/6823/343.full.pdf>

²⁸ Jackie Abramian, *ForbesWomen*, "After Her Nuclear Disaster Dress Rehearsal, Cynthia Lazaroff Has A Wake-Up Call For Our World As We Sleepwalk Into Nuclear Extinction," September 21, 2021.

<https://www.forbes.com/sites/jackieabramian/2021/09/21/after-her-own-nuclear-disaster-dress-rehearsal-cynthia-lazaroff-has-a-wake-up-call-as-our-world-sleepwalks-into-nuclear-extinction/?sh=6a22151d62e2> Lazaroff has founded NuclearWakeUpCall.Earth due to her concern over nuclear weapons. "There are nearly 13,500 nuclear warheads in current arsenals of nine nuclear-armed states. That the U.S. has more nuclear warheads than hospitals should be a wake-up call," says Lazaroff.

The ICRP maintains that human evidence of genetic effects due to radiation does not exist. The ICRP then uses the study of external radiation on mice to estimate the heritable risks for humans. One study was conducted using internal radionuclides on mice and the study noted that "detailed research on internal radiation exposure has hardly ever been reported in the past."²⁹ **This limited study of microcephaly in mice found that far lower doses of internal radiation caused the same effect as higher doses of external radiation.**

²⁹ Yukihiisa Miyachi, *J-STAGE*, "Microcephaly Due to Low-dose Intrauterine Radiation Exposure Caused by 33P Beta Administration to Pregnant Mice," 2019 Volume 68 Issue 3 Pages 105-113.

https://www.jstage.jst.go.jp/article/radioisotopes/68/3/68_680303/_article/-char/en

It has been known now for a few decades that radiation exposure to the developing embryo and fetus "can cause growth retardation; embryonic, neonatal, or fetal death; congenital malformations; and functional impairment such as mental retardation."³⁰

³⁰ Eric J. Hall, *Radiobiology for the Radiologist*, 5th ed., 2000, p. 190.

[Comment 39-3-18][Response 15.1] In 2007, the International Commission of Radiological Protection (ICRP) lowered its estimate of the risk of genetic harm of congenital malformations by 6-fold, from 1.3E-4/rem to 0.2E-4/rem. Based on the belief that the study of the Japanese bomb survivors did not detect genetic effects, **the ICRP genetic effect estimate for humans is based on studies of external radiation of mice.**

The ICRP estimate of risk of congenital malformations is a fraction of its predicted cancer risk for cancer mortality (or latent cancer fatality). The ICRP latent cancer fatality risk was 5.0E-4 LCF/rem (1991 estimate), close to the cancer mortality rate used in the Department of Energy's Versatile Test Reactor EIS of 6.0E-4 LCF/rem.³¹

³¹ U.S. Department of Energy's Versatile Test Reactor Draft Environmental Impact Statement (VTR EIS) (DOE/EIS-0542) (Announced December 21, 2020). A copy of the Draft VTR EIS can be downloaded at

<https://www.energy.gov/nepa> or <https://www.energy.gov/ne/nuclear-reactor-technologies/versatile-test-reactor>. (See discussion in VTR EIS Appendix C, page C-4).

While the studies of genetic injury to the Japan bombing survivors declared that they found no evidence of genetic damage, other researchers have found those studies to have been highly flawed. A report published in 2016 by Schmitz-Feuerhake, Busby and Pflugbeil summarizes numerous human epidemiology studies of congenital malformations due to radiation exposure.³²

³² Inge Schmitz-Feuerhake, Christopher Busby, and Sebastian Pflugbeil, *Environmental Health and Toxicology, Genetic radiation risks: a neglected topic in the low dose debate*, January 20, 2016.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4870760/> The 2016 report found the "excess relative risk for congenital malformations of 0.5 per mSv at 1 mSv falling to 0.1 per mSv at 10 mSv exposure and thereafter remaining roughly constant."

The 2016 report disputes the ICRP genetic risk estimate and finds that diverse human epidemiological evidence supports a far higher genetic risk for congenital malformations. **Nearly all types of hereditary defects were found at doses as low as 100 mrem.** The pregnancies are less viable at higher doses and so the rate of birth defects appears to stay steady or falls off at doses above 1000 mrem or 1 rem. The 2016 report found the excess relative risk for congenital malformations of 0.5 per 100 mrem at 100 mrem falling to 0.1 per 100 mrem at 1000 mrem.

The 2016 report's result for excess relativ' risk of congenital malformations of 5.0/rem is 250,000-fold higher than the ICRP estimate of 0.2E-4/rem which ICRP appears to assume has a linear dose response. (See the August 2021 Environmental Defense Institute newsletter.)

The internal radiation cancer harm is not based on solid epidemiological evidence and there are experts from Karl Z. Morgan to Chris Busby to Jack Valentin that understand that the accepted models may understate the cancer harm by a factor of 10, 100 or more. The nuclear industry continues to ignore the epidemiological evidence that implies tighter restrictions are needed. **Jack Valentin, former chair of the International Commission on Radiological Protection (ICRP) has admitted, before resigning from the ICRP, that the ICRP's radiation model underpredicts the harm of internal radiation by over a factor 100.**

[Comment 39-3-19][Response 15.1] The 100 millirem (mrem) per year all pathways radiation dose limit is greatly emphasized by the Department of Energy as the dose they consider allowable. Air permits may be regulated by the U.S. Environmental Protection Agency or by the states, but in either case, the EPA and the state, such as the State of Idaho, will often emphasize that the state cannot regulate Department of Energy radiological emissions. In Idaho, the State of Idaho Department of Environmental Quality will issue an air permit to the Department of Energy based entirely on the DOE's stated radiological release guesses or estimates, the Department of Energy contractors monitoring or lack thereof, and the State will agree to rapid records destruction of radiation monitoring of open-air radioactive waste evaporation ponds that is fully intended to cover up any radiological releases in excess of agreed to quantities.

In the Department of Energy's environmental monitoring reports, it is greatly emphasized that the DOE's derived concentration standards (DCGs) are safe as they imply a dose of 100 mrem per year. By now, you may be starting to understand why 100 mrem per year would actually guarantee a health catastrophe to the health of people, especially children.

Correspondence

Epidemiology that was conducted of INL workers found unexplained elevated levels of certain radiogenic cancers in both radiation and non-radiation workers. The INL-specific study found radiation and nonradiation workers at the Idaho National Laboratory site had higher risk of certain cancers.³³

³³ "An Epidemiology Study of Mortality and Radiation-Related Risk of Cancer Among Workers at the Idaho National Engineering and Environmental Laboratory, a U.S. Department of Energy Facility, January 2005. <http://www.cdc.gov/niosh/docs/2005-131/pdfs/2005-131.pdf> and <http://www.cdc.gov/niosh/oerp/ineel.htm> and Savannah River Site Mortality Study, 2007. <http://www.cdc.gov/niosh/oerp/savannah-mortality/>

The US Nuclear Regulatory Commission and the department of Energy maintain that their 5 rem/yr worker exposure limit is protective despite compelling scientific evidence to the contrary.³⁴ Epidemiology of thousands of radiation workers found elevated cancer risk occurring at doses far below the allowable 5000 mrem/yr.³⁵

³⁴ "Health Risks from Exposure to Low Levels of Ionizing Radiation BEIR VII – Phase 2, The National Academies Press, 2006, http://www.nap.edu/catalog.php?record_id=11340 The BEIR VII report reaffirmed the conclusion of the prior report that every exposure to radiation produces a corresponding increase in cancer risk. The BEIR VII report found increased sensitivity to radiation in children and women. Cancer risk incidence figures for solid tumors for women are about double those for men. And the same radiation in the first year of life for boys produces three to four times the cancer risk as exposure between the ages of 20 and 50. Female infants have almost double the risk as male infants.

³⁵ Richardson, David B., et al., "Risk of cancer from occupational exposure to ionizing radiation: retrospective cohort study of workers in France, the United Kingdom, and the United States (INWORKS), BMJ, v. 351 (October 15, 2015), at <http://www.bmj.com/content/351/bmj.h5359> Richardson et al 2015] (And please Radiation workers are still wrongly told that there is no evidence of damage to DNA or genetic effects from radiation exposure to humans. DOE's radiation workers are not told of the infertility and increased risk of birth defects from radiation.

[Comment 39-3-20][Response 15.9] Certain surplus plutonium disposition operations may also involve high neutron doses. The harm from neutron dose can be particularly harmful for gonads and may not be adequately monitored, particularly by emergency responders. Neutron dose can be high even if gamma rays are shielded. Neutron dose is difficult to monitor and the biological damage which depends on the neutron energy levels is only guessed at. Neutron shielding in transportation accidents or other configurations may be damaged. Fire or age-related degradation can damage the neutron shielding and so this is primarily an issue for radiation workers and emergency responders. The biological endpoint focus for the Department of Energy is cancer mortality and not the increased harm to reproductive health.

The bottom line is that the nuclear 110hyroid110y and especially the Department of Energy is grossly underestimating the fatal cancer risk of their radiological releases, and ignoring serious adverse health effects such as cancer incidence, heart disease, reduced immune system function, fertility problems, decreased life span, as well as increased rates of infant death and birth defects And they are also grossly underestimating the risk of genetic effects of ionizing radiation exposure prior to conception that are passed on to their children and grandchildren by relying on ICRP's industry-biased recommendations.

[Comment 39-3-21][Response 15.4] The nuclear industry has a myopic focus on cancer, although cancer is certainly increased by the inhalation or ingestion of radiative particles and/or from “shine” from penetrating radiation. The actual rates of health harm such as infertility, increased birth defects, heart disease, dementia, shortened life span and other adverse health effects are not adequately represented in nuclear industry radiation protection standards, especially for the chronic radiation exposure of far lower radiation doses. It is known that the developing child in utero, children and the elderly are many times more vulnerable to radiation exposure.

[Comment 39-3-22][Response 15.1] In summary, the Department of Energy’s dose limits are not protective of radiation workers (5,000 millirem per year) or the public (100 millirem per year).

Those who accept the flawed 2022 Draft SPDP EIS must explain why 5,000 millirem per year doses to the radiation workers and 100 millirem per year to the public is considered protective regardless of how high certain organ doses are or how detrimental to the unborn child the doses are.

Those who accept flawed 2022 Draft SPDP EIS must explain why DOE continues to base its regulations and decisions on the ICRP recommendations and why it considers the very inadequate ICRP models to be acceptable for the protection of human health.

Footnote: note that studies of high leukemia risk in radiation workers and of ongoing studies to assess health effects of high and low-linear energy transfer internal radiation must also be studied in addition to this one on external radiation.)

Organ-specific Risks of Radiological Releases, Routine and Accident, Ignored

[Comment 39-3-23][Response 15.5] Death by cancer and cancer incidence are known to be increased by ionizing radiation. However, the organ-specific harm is not reflected in this EIS. The higher incidence of thyroid cancer, for example, from iodine-131 and also from americium-241, caused increased rates of thyroid cancer. Yet, is death by thyroid cancer is deemed less likely to cause mortality, the derivation of the “rem” dose for the radiation is diminished. And these thyroid cancer or disease incidences not only affect adults, that can cause serious health implications in the developing child, from death to reduction in intelligence.

Elevated americium-241 releases, routine at LANL, have likely increased thyroid cancer and illness incidence and must be acknowledged in this draft SPDP EIS. The organ dose to the thyroid, gonads and other organs must not be ignored especially when far above the organ dose from naturally occurring radiation.

Correspondence #39-4 (continuation of 39-1)

Economic Losses Due to Permanent Evacuation of Private Property Not Addressed

[Comment 39-4-1][Response 20.2] There is no discussion of the economic loss due to permanent evacuation of private property in the draft SPDP EIS, nor the lack of insurance coverage for loss of home, property or automobiles. And there is no compensation for members of the public for the loss of life from routine or accident radiological release events. LANL workers who have their lives shortened or have increased cancers or their kids or grandkids have increased levels of birth defects, will not be compensated. However, a

few workers, whose DOE radiation records have not been as altered, biased or destroyed, and who have a cancer deemed compensable, may be eligible for compensation under a program for certain DOE or DOE contractor employees, the Energy Employee Occupational Illness Program Compensation Act of 2000, EEOICPA. Still, DOE can and has obscured the radiation records of workers, especially those workers with elevated radiation doses.

Radiation Dose Estimation is Controlled by DOE Contractors Who Caused the Accident

[Comment 39-4-2][Response 27.3]

At the Idaho National Laboratory, regarding the 2011 plutonium inhalation event at MFC (operated by Battelle Energy Alliance), the radiological control manager assured a formal citizens advisory board for INL that no curtailment of radiation work would be needed for any of the workers exposed to the 2011 accident at MFC. This would imply a radiation dose below 100 millirem for the intake. Yet, the reality was that bioassay results would prevent more than one worker from returning to radiation work for many months and there was no technical basis for such a claim.

The accident investigation report by DOE headquarters for the 2011 MFC plutonium inhalation event would not include the finding that the fume hood fan in operation had a substantially closed damper and this was only documented in an update of the DOE occurrence report.³⁶ The DOE headquarters report also left many inconsistencies regarding nasal swab results and lung count irregularities unexplained.

³⁶ Department of Energy Occurrence Report, NE-ID-BEA-ZPPR-2011-0001, "ZPPR Workroom Pu Contamination Event in MFC-775," Update September 25, 2012.

Lung counts performed by DOE contractors are often the determining factor used to then claim that no inhalation occurred. Yet, in fact, manipulations to lower the lung count results can be made without those manipulations being documented in the lung count report. Also, for the 2011 plutonium inhalation event at MFC, the highest lung count result in the group would have yielded an estimated dose over 5 rem.

Inexplicably, the highest lung count result was not included in the dose estimates made for the lung count results for the group of workers involved. And it was made to appear that all lung count results had been assessed. The DOE has stated that no skin contamination occurred nor was there any miscalibration issue.

Radioactive material particle size as well as solubility is often not accurately known and can influence the estimated dose by a factor of 10 or more. Dose conversion factors for actinides such as plutonium have changed over years and have increased (around 2018).

Inadequate Environmental Monitoring of Routine and Accident Radiological Releases from PF-4

[Comment 39-4-3][Response 27.3] What is at stake if PF-4 has a large release of airborne radionuclides? The meaning of even a 25-rem dose to the offsite public may sound benign to some people. The 25-rem guideline was the level at which, when exceeded, safety class mitigations would be expected to be implemented. With a plutonium-239 or plutonium-238 inhalation dose of 25 rem or higher to the offsite public, the amount of release is enormous. And the contamination, practically speaking, will never be remediated.

The radioactive half-life of Pu-238 is far less than Pu-239. However, both of these radionuclides decay through many additional decay progeny before eventually becoming

nonradioactive lead. In the case of Pu-238, once it decays to uranium-234, the tendency is for DOE to ignore it and assume it is from naturally occurring uranium-238 decay. Environmental monitoring programs may monitor Pu-238 but DOE or state programs typically do not monitor airborne radium or radon or thallium or lead levels. Yet, these radioactive particles are still harmful.

The ability for DOE to plan ahead to obscure the true level of its environmental releases should not be ignored. In Idaho, the state monitoring programs in Idaho National Laboratory releases are coordinated with the Department of Energy to minimize the association of the elevated contamination levels with the INL, and I say this after studying decades of environmental monitoring data associated with the INL.

DOE and state monitoring programs have gaps in monitoring data that often coincide with elevated releases. The Environmental Protection Agency radiological air monitoring in Idaho and the northwest also has blackouts in air monitoring that may coincide with operations, accidents and elevated releases. To reduce the growing contamination levels by a factor of ten, they know that they only need to switch to a different analytical laboratory to send the environmental samples to.

Draft SPDP EIS Actively Ignores Local Epidemiology and Environmental Monitoring [Comment 39-4-4][Response 15.3]

The rates of cancer for children continue to be elevated, especially in counties surrounding the Idaho National Laboratory. The incidence of thyroid cancer is double in the counties surrounding the INL and double that of all other counties in Idaho and double the rates for the country from the SEER database. This is a consistent result over a decade. As thyroid cancer incidence was climbing everywhere, it has been consistently double in the counties surrounding the INL.

I suspect there may be similar problems around LANL.

[Comment 39-4-5][Response 27.3] The Department of Energy, while accepting lower tabulated radiation doses and focusing on whole-body doses exclusively, has remained silent on the increased thyroid cancer incidence rates from various alpha emitters, and especially americium-241 around the INL. Due to the low tissue weighting value, whole body dose estimates are not affected much by the elevated thyroid doses.

A 2013 Pacific Northwest National Laboratory (PNNL) report incorporating Federal Guidance Report 13 tabulated whole body and organ specific dose conversion factors for an average half-male and half-female at various ages.³⁷ The 2013 PNNL report is to be used for calculating radiation dose but not the risk of higher radiation risks recognized in the EPA's 1999 Federal Guidance Report 13. Buried near the end of the PNNL report is a chart of how wildly increased the thyroid cancer incidence was for various radionuclides, by a factor of 10, of 100, of 1000, of 10,000 and of 100,000! See Figure 1 below.

##Note: Commenter included a graph titled "Figure 1. Ratio of the revised Federal Guidance Report (FGR) 13 thyroid dose conversion factors (DCFs) to the original Department of Energy (HUDUFACT.dat) thyroid DCF for radionuclides having the largest increases. (PNNL-22827)" that is not depicted here.##

³⁷ T.R. Hay and J.P. Rishel, Pacific Northwest National Laboratory, Department of Energy, *Revision of the APGEMS Dose Conversion Factor File Using Revised Factor from Federal Guidance Report 12 and 13*, PNNL22827, September 2013.
https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-22827.pdf

The radionuclides in Figure 1 include thorium, uranium and uranium decay progeny, plutonium, curium and americium. The thyroid cancer incidence rate increases for plutonium-238, plutonium-239, plutonium-240, plutonium-241 and americium-241 is over 1000.

It is important to understand that for many years, releases of these various americium, curium and plutonium radionuclides were not stated or were understated by the Department of Energy in its environmental monitoring reports.

The extensive airborne concentrations of americium-241 at the INL may be important to the underestimation of thyroid doses and risks of thyroid cancer incidence. A 1993 study estimated that the dose to the thyroid from americium-241 to be about 1.42 times that delivered to bone. They concluded that the thyroid dose is much higher from americium-241 than has been reported in people.³⁸

³⁸ G. N. Taylor et al., Health Physics, "241Am-induced Thyroid Lesions in the Beagle," June 1993. <https://pubmed.ncbi.nlm.nih.gov/8491622/>

[Comment 39-4-6][Response 15.8] On the potential health harm of americium-241, the Agency for Toxic Substances and Disease Registry has stated that: "The radiation from americium is the primary cause of adverse health effects from absorbed americium. Upon entering the body by any route of exposure, americium moves relatively rapidly through the body and is deposited on the surfaces of the bones where it remains for a long time. As americium undergoes radioactive decay in the bone, alpha particles collide with nearby cell matter and give all of their energy to this cell matter. The gamma rays released by decaying americium can travel much farther before hitting cellular material, and many of these gamma rays leave the body without hitting or damaging any cell matter. The dose from this alpha and gamma radiation can cause changes in the genetic material of these cells that could result in health effects such as bone cancers. Exposure to extremely high levels of americium, as has been reported in some animal studies, has resulted in damage to organs.

[Comment 39-4-7][Response 15.1] The Department of Energy has largely thwarted efforts to have epidemiology conducted near the INL and other DOE labs. Epidemiology that was conducted of INL workers found unexplained elevated levels of certain radiogenic cancers in both radiation and non-radiation workers.

[Comment 39-4-8][Response 15.2] Public water supplies are intermittently monitored for radionuclides, and may reveal gyrating levels of high levels of gross alpha emitters which usually cannot be shown to be from natural uranium and thorium levels or from past weapons testing fallout. Monitoring programs routinely seek to avoid reporting elevated levels of radionuclides in water, air and soil. These programs, including state and DOE's contractor for environmental reporting, may actively use poor sampling protocols, data deletion, biased blanks for count comparison, and false narratives to explain elevated results. The Draft SPDP EIS must include an evaluation of cancer incidence, including thyroid cancer and must include environmental monitoring program results and adequacy of the environmental programs is typically not assured, even with state involvement. Independent assessment of environmental monitoring programs and results is needed because the DOE/NNSA routinely make efforts to cover up ongoing radiological contamination.

Conclusion

[Comment 39-4-9][Response 26.2] To continue to conduct work unsafely at LANL while falsely claiming otherwise, and to add to the work load at LANL, that is already straining under the pressure of the difficulty in retaining workers for this life-shortening, child-birth-defects-increasing, and high hazard work - is not an ethical or a beneficial endeavor.

The 2022 SPDP EIS is extremely defective and disingenuous and must be redone in entirety. The current difficulty in hiring and in retaining qualified workers, the high cost of living near LANL, and the push toward 24/7 operations all increase the likelihood of calculational mistakes and operator errors that put workers and the public at even greater increased risk.

These comments are from Tami Thatcher, a mechanical engineer, who was a qualified nuclear safety analyst for a Department of Energy nuclear reactor facility at the Idaho National Laboratory. Her specialty was in nuclear risk assessment for DOE and Nuclear Regulatory Commission (NRC) nuclear reactor facilities. Her work included nuclear reactor probabilistic risk assessment and included seismic event nuclear accident risk assessment. Risk assessment is not required of non-reactor DOE nuclear facilities, but the insights from performing a systems analysis of the failure causes are relevant to non-reactor DOE nuclear facilities, despite it not being a requirement of the Department of Energy or the National Nuclear Security Agency (NNSA). Many of her reports and articles are at www.environmental-defense-institute.org.

Correspondence #40

From: Aiken Naacp-President
Sent: Tuesday, February 14, 2023 8:56 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Surplus Plutonium Disposition Program (SPDP Draft EIS) -Comments

Dear Ms Maxted:

[Comment 40-1][Response 5.3] I am writing to express my strongest support for the Surplus Plutonium Disposition Program (SPDP), in particular NNSA's Preferred Alternative of using the dilute and dispose strategy for 34 MT of surplus plutonium comprised of both surplus pit and non-pit surplus plutonium. That the activities that are part of the Preferred Alternative would occur at five DOE sites -Pantex in Texas, LANL in New Mexico, SRS in South Carolina, the Y-12 National Security Complex in Tennessee, and the WIPP facility in New Mexico, is particularly important in that it is indicative of the deep technical expertise, project and planning competence, and supporting communities that is present in the US Department of Energy Complex.

[Comment 40-2][Response 25.1]

I am very confident that the team selected to execute this scope will be capable, committed, and postured to meet and exceed expectations on this very unique technical challenge. Our Nation will be more safe and secure upon successful project completion. Additionally, NNSA's deep commitment to safety will ensure that the work will be completed with an unparalleled emphasis on safety to workers, technical staff, and the community.

Overall the Draft EIS is well-produced and thorough in its analysis. **[Comment 40-3][Response 3.1]** Section 4.0 of Volume 1 provides a description of the environmental consequences of the actions described in the SPDP Draft EIS. However, the Summary

Correspondence

Volume is quite important, as it could be the only volume that some community and non-technical stakeholders may read. With this, it is vital that the information captured in Section 4.0 of Volume 1 be distilled and translated so that it is adequately captured and communicated in Section S7 of the Summary Volume.

Section S7 falls short in effectively communicating the information in Section 4.0 Volume 1. Lines 6-7 essentially refer the reader to Section 4.0 of Volume 1 and Appendix C in Volume 2 for the details of the environmental consequences that would be expected as a result of the 9 alternatives considered in the draft SPDP EIS. However, Section S7 then proceeds to present Table S-10 without much information on what the presented numbers and data represent. It neither presents a thorough explanation of this data, nor does it offer an interpretation of this data. The Draft EIS would be much stronger and accessible if Table S-10 was revised to present and summarize the data presented in Section 4.0 of Volume 1 and Appendix C in Volume 2 more clearly.

[Comment 40-4][Response 3.1] Additionally Volume 1 Environmental Justice Sections 4.2.3.1.6 and 4.2.3.2.6 both refer to a Section 0 analyses for the Preferred and No Action Alternatives indicating no high and adverse human health and 30 environmental effects on the population within 50 mi of LANL and within the SRS ROI. I was unable to find Section 0. I would recommend revisiting this Section 0 reference to ensure that the reader can easily find the mentioned analysis.

[Comment 40-5][Response 20.2] Finally, Volume 1 Section 4.2.9.1 presents potential SPDP socioeconomic benefits related to job creation and economic development, as 1,301 jobs in the Region of Influence and over \$1.8 billion in total industry output for the Base Approach and SRS NPMP Sub-Alternatives. Given this potential socioeconomic impact and job creation potential, we expect that the US Department of Energy, NNSA, and the Savannah River Site will be intentional in forming a diverse and inclusive team at the executive, management, staff, and craft levels to ensure that the very best group is assembled to ensure success on this project and that all communities will reap the benefits from it.

[Comment 40-6][Response 25.2] This truly will make SPDP a transformational program that creates lasting community impact, serves a vital function in supporting National Defence, and aligns with the national mission of the NAACP: achieving equity, political rights, and social inclusion by advancing policies and practices that expand human and civil rights, eliminate discrimination, and accelerate the well-being, education, and economic security of Black people and all persons of color.

We look forward to serving as an active community partner on this vital project, and we wish NNSA all the very best in developing a best-in-class EIS. .

Onward and upward,
Eugene White
Aiken County NAACP President
803.810.9276

Correspondence #41

From: Suzanne Jackson
Sent: Tuesday, February 14, 2023 4:31 PM
To: SPDP-EIS@nnsa.doe.gov

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Subject: [EXTERNAL] Remarks Regarding the Surplus Plutonium Disposition Draft EIS Public Comment Attachments: ACTS Remarks Regarding Draft EIS Surplus Plutonium Disposition Program.docx

Attached please find ACTS' remarks regarding the Draft EIS for the Surplus Plutonium Disposition Program.

Please don't hesitate to contact me if you have any questions. Thank you for the opportunity to submit.

Suzanne K. Jackson
Executive Director
ACTS
suzanne@actsofaiken.org
803-649-3800
www.actsofaiken.org

February 10, 2023

Ms. Maxcine Maxted, NEPA Document Manager
U.S. Department of Energy/National Nuclear Security Administration Office of Material Management and Minimization
Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328
Aiken, SC 29802

RE: Draft Environmental Impact Statement for Surplus Plutonium Disposition Program (SPDP EIS) (DOE/EIS-0549)

Dear Ms. Maxted,

Thank you for the opportunity to share comments regarding the draft Environmental Impact Statement for the National Nuclear Security Administration's Surplus Plutonium Disposition Program.

ACTS is a non-profit organization located in Aiken, SC. Our mission is to provide assistance to individuals and families living in poverty, the working poor, senior adults on fixed incomes and individuals who are facing financial uncertainties due to loss of employment or unexpected medical emergencies. Our services include food, clothing, utility assistance, medical assistance, and other services designed to meet the emergency needs of individuals and families in need. **[Comment 41-1][Response 25.2]** ACTS has operated in Aiken County for more than 37 years and during this time period, we have experienced firsthand the impact of SRS in our community. The support that the Site provides to ACTS from a volunteer standpoint, as well as financially, is to be commended. Without the support of SRS and its employees, ACTS would be limited in the number of clients we serve annually. We provided more than 13,300 services impacting more than 23,600 individuals in 2022 and we rely on more than 425 volunteers to help deliver these services. Employees from SRS have been and continue to be active participants in our volunteer workforce.

For more than 70 years, SRS has been a vital community partner providing an economic impact through their support of local businesses and the creation of direct and indirect jobs.

Correspondence

Their support of local non-profits with missions to support vulnerable populations with limited resources enhances the quality of life for everyone living on our community.

SRS has demonstrated consistently over the decades their commitment to operating with an exemplary safety record. Their breadth of nuclear management and operations experience will continue to lead the day-to-day operations, all of which make SRS a viable option for the Surplus Plutonium Disposition Mission.

ACTS is appreciative of our longstanding partnership with SRS and the breadth of support of our mission we receive annually. Thank you for the opportunity to share our support for the draft SPDP EIS. I can be reached by email at suzanne@actsofaiken.org should you have questions.

Sincerely,

Suzanne K. Jackson
Executive Director

Correspondence #42

From: Melissa Camarena
Sent: Tuesday, February 14, 2023 4:05 PM
To: SPDP-EIS@NNSA.DOE.GOV
Subject: [EXTERNAL] WIPP support statement
Attachments: WIPP support statement.pdf

Good Evening Ms. Maxted,

I have attached comments regarding the DOE Surplus Plutonium and potential storage at the WIPP facility near Carlsbad, NM.
I appreciate your consideration regarding this.

Thank you for your time,

Melissa Camarena
Admissions Coordinator
Lakeview Christian Home
Office (575) 885-3161
Mobile (575) 200-5261
Fax(575) 885-3250

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February 14, 2023
Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration (NNSA)
Office of Material Management and Minimization

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328
Aiken, SC 29802

RE: Surplus Plutonium Disposition Proposal Dear Ms. Maxted:

Good evening: My name is Melissa Camarena and I live and work in Eddy County, NM. My family and I appreciate the opportunity to comment on the record as part of the formation of the Department of Energy's Surplus Plutonium Disposition Environmental Impact Statement.

[Comment 42-1][Response 8.6] Carlsbad and the surrounding county are immensely proud of the decades-long relationship between the Waste Isolation Pilot Plant and the citizens of Carlsbad, New Mexico. I clearly remember the early years of storing waste in our county. There was a lot of fear and distrust; many people worried about the impact WIPP would have in our community. In time, WIPP has established a culture of safety, reliability, and altruism; earning respect and trust from the community at large. We trust WIPP because our family and friends work there and can attest that our trust is well placed. They never lose sight of the responsibility they have towards one another regarding safe practices. WIPP's contribution to our community is immeasurable.

Allowing disposal surplus plutonium at WIPP will stabilize shipments to the site, which is crucial to keeping the project staffed and funded handle any product of the cleanup effort. This waste is similar to waste already stored at this site and WIPP has the capacity safely to store it. I support the DOE's suggestion that WIPP be used to dispose of this waste, which cannot be used as fuel.

Thank you for allowing me the opportunity to comment.

Sincerely,
Melissa Camarena
2/14/2023

Correspondence #43

From: Long, Larry
Sent: Tuesday, February 14, 2023 7:10 AM
To: SPDP-EIS@NNSA.DOE.gov
Subject: [EXTERNAL] Surplus Plutonium EIS

EPA would like to set up a meeting to discuss our concerns with the Surplus Plutonium EIS prior to the issuance of our comment letter. Please provide contact information so that I may set up a teams meeting.Thanks

Larry Long
Regional Mining Expert
Physical Scientist/Sr. Principle Reviewer
NEPA Section/Strategic Programs Office
Office of the Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-9460

Correspondence

404-562-9598(FAX)
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Intelligence does not always define wisdom, but adaptability to change does

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Correspondence #44

Provided by Norbert Rempe (55-12) during the public hearing in Carlsbad, NM.

American Nuclear Society
Position Statement #47
Disposition of Surplus Weapons Plutonium

[Comment 44-1][Response 2.3] The American Nuclear Society (ANS) endorses timely disposition of surplus weapons-grade plutonium. The end of the Cold War led to universal recognition that both the United States and Russia possess stockpiles of weapons-grade plutonium that far exceed their defense requirements. In 1994 the then National Academy of Sciences stated the following: "The existence of this surplus material constitutes a clear and present danger to national and international security."¹ Russia and the United States held extensive discussions on plutonium disposition, culminating in a September 2000 agreement² to dispose of 34 metric tons of surplus weapons-grade plutonium in each country.

The U.S. Department of Energy (DOE) initiated a program to convert weapons-grade plutonium into mixed oxide (MOX) fuel and use it in existing light water reactors. In the process, some weapons-grade plutonium would be consumed with the remainder transformed into reactor-grade plutonium surrounded by highly radioactive fission products (i.e., used fuel). However, cost and schedule concerns arose, and the DOE canceled the program in 2018.³ **[Comment 44-2][Response 4.2]** Now DOE intends to employ a "dilute-and-dispose" option,⁴ by which the weapons-grade plutonium would be mixed with a classified material and then buried at the Waste Isolation Pilot Plant (WIPP), a geologic repository for transuranic waste in New Mexico. Dilute-and-dispose faces its own technical and regulatory challenges^{5,6}; in addition, it does not destroy or isotopically degrade any of the plutonium.

[Comment 44-3][Response 7.2] Russia, the United States' original partner in plutonium disposition, did not concur that dilute-and-dispose is an acceptable means of plutonium disposition and withdrew from the agreement after the DOE announced its intent to switch methods. Given these considerations, ANS recommends the DOE reconsider its decision to bury the weapons-grade plutonium and evaluate in detail the option of using the material as fuel for advanced reactors-an alternative with a number of attractive attributes, which are discussed below.

Advanced reactors offer many potential advantages as a clean, safe, reliable energy source,

and there is considerable public and private investment in bringing designs into operation.⁷ Many advanced reactor designs employ a fast neutron spectrum in the reactor core, unlike current light water reactors, which are characterized by a slow (thermal) spectrum. Plutonium can be used as fuel in both fast and thermal reactors, but fast reactors are particularly well-suited for consuming plutonium-239 (the primary constituent of weapons-grade plutonium). If using uranium as a fuel, fast-spectrum advanced reactors would require a higher enrichment of their fuel than the 4-to 5-percent uranium-235 used in current reactors, and there are concerns over the availability of this high-assay low-enriched uranium (HALEU).⁸ Using weapons-grade plutonium as fuel in fast reactors could help overcome the initial fuel availability obstacle to the development of some advanced reactor designs. Moreover, the surplus weapons-grade plutonium was produced at great U.S. taxpayer expense, and using it to produce clean energy would be far better than simply throwing it away.

From a nonproliferation perspective as well, using surplus weapons-grade plutonium as reactor fuel is superior to burying it the ground, as would be the case with dilute-and-dispose. Buried weapons-grade plutonium could theoretically be recovered and used again for nuclear weapons. Conversely, using the plutonium as advanced reactor fuel would destroy most of it, while the remainder would be isotopically degraded and part of a highly radioactive used fuel matrix that is unattractive for theft or diversion. Using surplus weapons-grade plutonium as fast-spectrum reactor fuel is consistent with the plutonium disposition approach planned by the Russian Federation. Russia withdrew from the plutonium disposition agreement after the United States announced its intention to switch to dilute-and-dispose, so a common approach for weapons-grade plutonium disposition between Russia and the United States could enable renewed cooperation on this important international nonproliferation program.

It should be acknowledged that any program involving the reuse of plutonium in nuclear reactors could face criticism from those opposed to a beneficial use of the material. In addition, states where surplus weapons-grade plutonium is now being or will be stored are important stakeholders in the ultimate means of disposition. With that being said, the United States expended vast resources to produce a large stockpile of weapons-grade plutonium and then invested additional resources in a program to dispose of the material before ultimately canceling that program. Rather than rushing to implement an alternative that has its own challenges and produces no benefit to the American people, the government should delay converting plutonium metal to plutonium oxide, reevaluate all of its options, and consider a program of using surplus plutonium as fuel for advanced reactors, with a primary focus on fast-neutron-spectrum reactors. Such a course of action could help bring advanced reactors to fruition while encouraging the resumption of U.S.-Russian cooperation on plutonium disposition.

References

1. Management and Disposition of Excess Weapons Plutonium, p. I, National Academies of Sciences, Committee on Arms Control and International Security, The National Academies Press, 1994; <https://doi.org/10.17226/2345>.
2. "Agreement Between the Government of the United States of America and the Government of the Russian Federation Concerning the Management and Disposition of Plutonium Designated As No Longer Required for Defense Purposes and Related Cooperation," September 2000.
3. Letter, G. Pyles, Department of Energy National Nuclear Security Agency, to R. Norton, CB&I AREVA MOX SeNices, "Notice of Termination," October 10, 2018.
4. "Disposal of Surplus Plutonium at the Waste Isolation Pilot Plant: Interim Report," A Consensus Study Report of the National Academies of Sciences, Engineering, and Medicine,

Correspondence

2018; <https://doi.org/10.17226/25272>.

5. GAO-17-390, "Plutonium Disposition: Proposed Dilute and Dispose Approach Highlights Need for More Work at the Waste Isolation Pilot Plant," September

2017; <https://www.gao.gov/products/GAO-17-390> {current as of May 18, 2020}.

6. GAO-20-166, "Surplus Plutonium Disposition: NNSA's long-Term Plutonium Oxide Production Plans Are Uncertain," October 2019; <https://www.po.gov/products/GAO-20-166>.

7. American Nuclear Society Position Statement 35, "Advanced Reactors," June 2018; <https://cdn.ans.org/policy/statements/docs/ps35.pdf>.

8. DOE/EA-2087, "Environmental Assessment for Use of DOE-Owned High-Assay Low-Enriched Uranium Stored at Idaho National Laboratory," January 2019; <https://www.energy.gov/nejla/ea-2087-use-doe-owned-high-assay-lowenriched-uranium-stored-idaho-national-laboratory-bingham>.

American Nuclear Society

708-352-6611

askanything@ans.org

ans.org

MAY 2021 Disposition of Surplus Weapons Plutonium Position Statement #47

Correspondence #45

From: Barbara Nicholas

Sent: Thursday, February 16, 2023 6:31 AM

To: SPDP-EIS@nnsa.doe.gov

Subject: [EXTERNAL] Transportation of plutonium

[Comment 45-1][Response 23.5] I add my name in opposition to the transportation of this hazardous material.

Barbara Nicholas

Correspondence #46

From: Maria Thomas

Sent: Sunday, February 19, 2023 6:31 PM

To: SPDP-EIS@nnsa.doe.gov

Subject: [EXTERNAL] Don't expand the original WIPP New Mexico nuclear waste repository

Ms. Maxted,

I am writing this letter to you as a concerned citizen, one of few that are aware of WIPP's planned expansion.

[Comment 46-1][Response 4.2] Adding the surplus Plutonium to the original WIPP program changes the form of Plutonium waste into a powdered plutonium that would be deadly, if inhaled, in an accident. **[Comment 46-2][Response 23.2]** It is too dangerous to ship as planned. The Los Angeles Times newspaper has written about the suboptimal proposed trucking conditions.

[Comment 46-3][Response 7.5] Instead of transporting the nuclear waste over 10 states, it should remain where it is in a fortified repository built just for that purpose.

regards,

Maria Thomas, MD

Correspondence #47

From: Jean De Lataillade

Sent: Monday, February 20, 2023 12:55 PM

To: SPDP-EIS@NNSA.DOE.GOV

Subject: [EXTERNAL] Comments for the Surplus Plutonium Draft Environmental Impact Statement

[Comment 47-1][Response 8.7] I strongly oppose the Surplus of Plutonium shipments to WIPP as proposed by the DOE's expanded mission.

[Comment 47-2][Response 4.2] The surplus plutonium program changes the form of the plutonium waste into its most deadly form. **[Comment 47-3][Response 23.3]** Powdered plutonium must never be transported because it is a danger to communities.

[Comment 47-4][Response 23.3] Powdered plutonium, if inhaled, causes cancer 100% of the time. It is too dangerous to ship, certainly over this long-time frame.

[Comment 47-5][Response 23.3] Powdered plutonium, if released over land, is almost impossible to clean up (Sandia Labs). Transporting it risks our ranch and farm land, businesses, schools and homes.

Transporting this most dangerous form of plutonium is irresponsible. Shipping it through 10 states is an accident waiting to happen. An accident of this waste will be catastrophic to the neighborhood it occurs in.

[Comment 47-6][Response 8.2] Including this new waste stream in WIPP will overflow its limits. NNSA must not break the promises it made to the limits in the original -and current-mission.

[Comment 47-7][Response 7.5] Instead of transporting waste over 10 states, it should remain where it is and a fortified repository should be built there.

[Comment 47-8][Response 2.4] Neighborhoods have standing to limit the risks the NNSA is trying to impose on them. Neighborhoods in New Mexico say do not want the risks of this new, expanded mission.

[Comment 47-9][Response 7.4] The distance for transporting powdered plutonium is unacceptably risky. A safer method must be found that doesn't include so vast a distance.

[Comment 47-10][Response 5.2] The amount of time proposed for this program makes it a bigger risk than it should be for civilians. Common sense dictates another solution.

[Comment 47-11][Response 9.3] Why hasn't NNSA spoken publicly to any of the communities it plans to put at risk? This lack of transparency must be corrected before any project is accepted.

Yours truly,
Jean Delataillade
Santa Fe, New Mexico

Correspondence

Correspondence #48

From: William Mee
Sent: Wednesday, February 22, 2023 8:09 AM
To: SPDP-EIS@nnsa.doe.gov
CC: 285alliance@gmail.com; Cynthia Weehler; Anna C. Hansen; Joni Arends; Greg Mello
Subject: [EXTERNAL] Comments on WIPP

Maxine Maxted
U.S. Department of Energy

[Comment 48-1][Response 18.1] Agua Fria Village is less safe because of WIPP. I think the threat assessment for the WIPP route is greatly mis-analyzed. I think the main planning has gone around some type of foreign terrorists who may be from ISIS or a jihadist group that have a religious fervor. There has been no consideration of Russian groups that have already attacked power plants in the USA online, and now have a need to influence the war in Ukraine.

There is a whole breed of Domestic Terrorists who in their support of restoring Trump to the presidency will do anything. They are informed by QAnon and 4 Chan and 8 Chan internet sources. Sources that have fanatical unrealistic data. The 120 antivax employees that were laid off from LANL and had heavy Trump leanings, could provide inside information on how to hijack WIPP shipments, and hold them hostage until Trump is restored to the presidency. No matter how insane this sounds it is all very plausible and because of the ineptitude and insanity of the hijackers it could become a more dangerous situation. Would they cut open the Trupac with welding torches?

Both the NM 599 and Highway 285 corridors, have many unprotected at-grade intersections which would facilitate a hijacking situation. They are just far enough away from Los Alamos to have the guard crew become inattentive and lackadaisical.

Thank you.

William Mee, President
Agua Fria Village Association
2073 Camino Samuel Montoya
Santa Fe, N.M. 87507

Correspondence #49

From: Joni Arends
Sent: Thursday, March 16, 2023 10:40 PM
To: spdp-eis Subject: [EXTERNAL] CCNS SPDP DEIS Comments
Attachments: 2303016 f CCNS Surplus Plutonium Disposition Plan DEIS comments.pdf;
CCNS TPSF Receipt for 700 Petition Signatures for LANL NEPA 200310.pdf

Good evening,

Please find attached the comments of Concerned Citizens for Nuclear Safety about the DOE/NNSA Surplus Plutonium Disposition Program Draft Environmental Impact Statement (SPDP DEIS), along with a March 10, 2020 receipt for approximately 700 petition signatures requesting congressional assistance to ensure NEPA coverage at LANL.

Please contact me with any comments or questions.

Best,

Joni

Joni Arends, Executive Director
Concerned Citizens for Nuclear Safety
P. O. Box 31147
Santa Fe, NM 87594-1147
505 986-1973
www.nuclearactive.org

##Note: Correspondence includes letterhead for Concerned Citizens for Nuclear Safety.##

March 16, 2023

By email to: SPDP-EIS@nnsa.doe.gov

Maxcine Maxted, NEPA Document Manager
NNSA Office of Material Management and Minimization
Savannah River Site
P. O. Box A, Bldg. 730-2B, Room 328
Aiken, SC 29802

Re: Public Comments about the proposed DOE/NNSA Surplus Plutonium Disposition Program Draft Environmental Impact Statement (DEIS) to ship 34 Metric Tons (or more) of surplus plutonium pits from the **Pantex Plant** to **LANL** for processing into powdered plutonium for shipment to the **Savannah River Site** for additional processing before shipment to **WIPP** for disposal

SUMMARY OF COMMENTS

[Comment 49-1][Response 5.1] The DEIS is Based on Outdated or Non-existent EIS Information, Data and Analyses

The Public Is Unable to Provide Informed Comments About the Potential Public Health and Environmental Consequences of the DOE's Proposal

[Comment 49-2][Response 5.1] Dates of Last NEPA EIS Coverage for the Four Proposed DOE Sites:

- * 1996 - Last EIS completed for Pantex Plant
- * 2008 - Last Site-Wide EIS completed for LANL
- * ? - Has an EIS ever been completed for SRS?
- * 1990 - Last EIS completed for WIPP

<https://www.energy.gov/nepa/doe-environmental-impact-statements>

DOE Must Retract the DEIS and Complete New EIS Processes for the Four Sites

Dear Ms. Maxted:

Concerned Citizens for Nuclear Safety (CCNS) provide the following truncated public comments about the Surplus Plutonium Disposition Program Draft Environmental Impact Statement (SPDP DEIS). **[Comment 49-3][Response 5.1]** CCNS is unable to provide informed public comments about the DEIS because it is based on outdated information, stale data and analyses for the four sites selected for the surplus plutonium disposition plan submitted by the Department of Energy (DOE) and the DOE's semi-autonomous nuclear weapons agency, the National Nuclear Security Administration (NNSA). **[Comment 49-4][Response 5.1]** The four sites are:

- * the Pantex Plant, located north of Amarillo, TX;
- * Los Alamos National Laboratory (LANL), located in Northern NM;
- * the Savannah River Site (SRS), located in SC; and
- * the Waste Isolation Pilot Plant (WIPP), located in Southeastern NM.

Generally, EIS analyses are done every 10 years. However, the four sites proposed for the SPDP, the EIS documentation are all out of date. It is unknown whether an EIS has ever been completed for SRS. The last EIS for WIPP was completed in 1990 -33 years ago. The last EIS for the Pantex Plant was completed in 1996 - 27 years ago. The last SWEIS for LANL was completed in 2008 - 15 years ago. DOE/NNSA must retract the SPSP DEIS and complete a new EIS process for each of the four sites where DOE/NNSA plan to dilute the plutonium, turn it into powdered plutonium - the most dangerous form because it is easily inhaled -and dispose of 34 metric tons (MT), and ultimately up to 48.2 MT or more, of surplus plutonium at WIPP.

[Comment 49-5][Response 24.1] DOE/NNSA has not conducted cumulative effects analyses at the four proposed SPDP sites to determine the risks of these operations on people and the environment in the vicinity of the sites because DOE/NNSA does not have up-to-date data. As a result, DOE/NNSA is prevented from making an accurate cumulative impact assessment of the plan as required by the National Environmental Policy Act (NEPA).

[Comment 49-6][Response 9.6] The inaction of DOE/NNSA to bring the environmental impact statements for the four sites up-to-date is irresponsible. How can the DOE/NNSA expect the public to provide informed comments on a DEIS that is based on stale data, resulting in incomplete analyses in violation of NEPA.

[Comment 49-7][Response 9.7] Further, because the SPDP involves major federal actions at four DOE/NNSA sites, the DEIS should be a draft programmatic environmental impact statement (PEIS).

Concerns about SPDP Operations at LANL

[Comment 49-8][Response 24.2] Further, DOE/NNSA have not provided the current data to determine the cumulative effects for "reasonably foreseeable projects." 40 C.F.R. § 1508.7. Reasonably foreseeable projects at LANL include expanded plutonium pit production in the Plutonium Facility (PF-4) and the proposed SPDP project to process plutonium pits into powder in the ARIES process in the same facility. Other reasonably foreseeable concurrent projects in PF-4 could potentially include the removal of equipment, installation of new equipment, and maintenance of current equipment - all while the facility is operating 24/7/365 with hundreds of new employees.

[Comment 49-9][Response 24.2] Other reasonably foreseeable projects could include addressing outstanding ventilation problems as documented by the Defense Nuclear

Facilities Safety Board (DNFSB), including the lack of attention to the leak path factor. In an August 11, 2022 letter to DOE Secretary Granholm, the DNFSB wrote:

The leak path factor is an important input to the PF-4 safety basis as it quantified the amount of radioactive material that might escape from the passive confinement structure during an accident."

For almost two decades, the Department of Energy (DOE) has planned to upgrade the active confinement ventilation system at PF-4 to meet safety class requirements, which would reduce the release of radioactive material during accident scenarios to a small fraction of the evaluation guideline established in DOE Standard 3009-2014, Preparation of Nonreactor Nuclear Facility Documented Safety Analysis. However, in a March 15, 2022, letter to the Board, the National Nuclear Security Administration (NNSA) stated that it would no longer pursue a safety class active confinement ventilation system at PF-4. Accordingly, its safety control strategy will continue to rely on passive confinement and thus the leak path factor analysis. Because the leak path factor analysis is critical for validating the performance of the passive confinement system, to be in compliance with applicable standards (such as DOE Standard 3009-2014), NNSA and Los Alamos must ensure the updated analysis is conservative and that key inputs and assumptions are protected commensurate with their importance. Given the importance of the leak path factor analysis in ensuring that the passive confinement system can adequately mitigate accident consequences, the Board advises NNSA to address the concerns in the enclosed staff report.

The Board has previously communicated concerns with the leak path factor analysis in a November 15, 2019, letter and Technical Report 44, Los Alamos National Laboratory Plutonium Facility Leak Path Factor Methodology. In February 2020, the NNSA Los Alamos Field Office directed the LANL contractor to consider the information provided by the Board in these two letters and document which portions of the input were or were not used and the associated rationale.

<https://www.dnfsb.gov/sites/default/files/document/26366/2022-100-036%2C%20LANL%20PF-4%20Updated%20Leak%20Path%20Factor%20Analysis%20ARCHIVE.pdf>

See Reference No. 9 to the report attached to the letter: Los Alamos National Laboratory, Transmittal of TA-55 Leak Path Factor Analysis, NMT-14: 04-138, December 17, 2004.

It is irresponsible for DOE/NNSA to consider PF-4 for expanded plutonium pit production and expanded ARIES operations at a time when the essential leak path factor analysis has not been completed and the current ventilation system does not meet the safety class requirements.

Concerns about the Five-Year Plus Delay in the Preparation of a LANL SWEIS

[Comment 49-10][Response 9.6] The last LANL SWEIS was completed in 2008. A new SWEIS should have been completed in 2018. The new SWEIS should have been completed **before** the "irreversible and irretrievable" commitment of billions of taxpayer funds at LANL.

NEPA prohibits the "irreversible and irretrievable" commitment of resources that would be involved in a proposed action, such as the SPDP, before the environmental review process is complete. In the last three fiscal years, the total LANL budget increased from roughly \$3.9 billion to \$4.9 billion - a one billion dollar increase - all without the proper NEPA analyses of

Correspondence

the environmental impacts and cumulative effects of "investing" those funds at LANL.

##Note: Commenter included a graph depicting FY2023 Congressional Budget Request information for LANL, which is not depicted here.##

<https://nukewatch.org/newsite/wp-content/uploads/2023/02/LANL-FY23-Lab-Table-Chart-scaled.jpg>

[Comment 49-11][Response 27.5] DOE/NNSA has committed irreversible and irretrievable resources at LANL, in violation of NEPA.

CCNS and Taoseños for Peaceful and Sustainable Futures anticipated the DOE/NNSA violations of NEPA. On March 10, 2020, the non-governmental organization presented approximately 700 individual signatures on a petition asking for a PEIS followed by a new LANL SWEIS before any expanded plutonium pit production could begin to U.S. Senators Tom Udall and Martin Heinrich and Representative Ben Ray Lujan. The petition reads:

As your constituents, we urge you to act now to demand the Department of Energy (DOE) conduct a Programmatic Environmental Impact Statement (PEIS) followed by new Site-Wide Environmental Impact Statement (SWEIS) for Los Alamos National Laboratory (LANL) before any proposed expanded plutonium pit production and associated infrastructure projects could begin. The current LANL SWEIS was completed in 2008 and analyzed for the production of 80 plutonium pits (or triggers) per year in a new facility. LANL was held to 20 pits per year. The new proposals are for the production of a minimum of 30 plutonium pits per year in a 40-year old facility. *New Mexico deserves a fresh look.*

Attached to these comments is the receipt for copies of the petition signed by staffers in the respective congressional offices in Santa Fe, NM.

The People of New Mexico are still waiting for a draft LANL SWEIS. We were told that a draft would be released this summer. This week, the DOE/NNSA Los Alamos Field Office Manager Ted Wyka announced to the Los Alamos County Council that it would be fall 2023 before the draft LANL SWEIS would be released for public review and comment.
<https://losalamosreporter.com/2023/03/16/doe-nnsas-wyka-updates-losalamos-county-council-at-tuesdays-work-session/>

All the while, billions of taxpayer funds are irreversibly and irretrievably committed to DOE/NNSA nuclear weapons programs (\$3.6 billion, or 74 percent of LANL's FY 2023 congressional budget request) before the public voice is heard in the formal NEPA environmental review process.

[Comment 49-12][Response 8.1] Concerns about SPDP Operations at WIPP

CCNS is reminded of the words of U.S. Senator Pete Domenici of New Mexico, a strong advocate of WIPP from its beginning. In 2002, he cautioned against burial of surplus plutonium at WIPP. He warned:

I want to ensure that high level ... wastes can never be simply diluted in order to comply with criteria for WIPP disposal ... [Such dilution] raises serious questions about our adherence to the same international controls on weapon-related materials that we expect other nations to follow."

In the current climate of heightened awareness of nuclear weapons and materials, compliance with international controls is required. But non-compliance is exactly what DOE

proposes.

Analyses of Alternatives

[Comment 49-13][Response 7.4] Further, DOE/NNSA must consider alternatives, including

- * dilution and storage of the plutonium at the Savannah River Site (SRS);
- * immobilization (encasing the plutonium in glass or ceramic materials prior to disposal) and storage at SRS or sites other than WIPP; and
- * consideration of another repository other than WIPP.

[Comment 49-14][Response 8.1] DOE/NNSA has violated the social contract with the People of New Mexico regarding WIPP. That social contract limits the disposal of legacy transuranic (TRU) plutonium waste to no more than 6.2 million cubic feet and limits the operational disposal phase to 25 years followed by closure, which could take 10 years.

Finally, DOE/NNSA must conscientiously comply with international standards. **[Comment 49-15][Response 9.6]** It must conform to its own rules concerning the bringing the outdated or non-existent environmental impact statements current so that the public has the latest information to review the DOE/NNSA current plans for surplus plutonium disposition. **[Comment 49-16][Response 8.1]** And it must not cast aside long-standing commitments and promises to the People of New Mexico.

In conclusion, **[Comment 49-17][Response 9.6]** DOE/NNSA must retract the SPDP DEIS; must complete the required NEPA analyses for the four proposed sites; **[Comment 49-18][Response 7.4]** must consider all alternatives, including another repository other than WIPP and immobilization; **[Comment 49-19][Response 8.1]** and compliance must comply with the social contract with the People of New Mexico.

Thank you for your careful consideration of CCNS's truncated comments about the defective SPDP DEIS, based on outdated and stale data, information and analyses for the four proposed sites for the SPDP.

Sincerely,

Joni Arends, Co-founder and Executive Director

Attachment: March 10, 2020 Receipt of approximately 700 individual signatures on a petition requesting NEPA coverage for expanded plutonium pit production at LANL

##Note: Commenter included an attachment for a petition receipt (described above), which is not depicted here.##

Correspondence #50

From: Russell Daniel
Sent: Saturday, February 25, 2023 9:09 AM
To: SPDP-EIS@NNSA.DOE.GOV
Subject: [EXTERNAL] proposal to renew the WIPP permit

Correspondence

Dear Ms. Maxted,

[Comment 50-1][Response 27.4] As a physician, who lives approximately 1/2 mile from the corridor used to transport the radioactive waste, I must question the wisdom of "renewal" of the WIPP permit. This is not truly a "renewal", but actually represents a major change to the scope of this project and permit. It involves moving a different kind of waste, which is potentially much more hazardous than was the waste in the original permit. Furthermore, in light of the recent and unfolding environmental disaster resulting from the derailment of a train in Ohio, which carried toxic chemicals, I believe that transporting this much more dangerous waste for thousands of miles over public highways, including those in New Mexico is a bad idea. What we have here is not "renewal" of a permit, but the request for approval of a new permit, which is of a totally different scope, with much more serious real life consequences and dressing up the new permit as a "renewal". Approval of this permit is a bad idea and should not be done. The very real risk of an accident would result in a true catastrophe much worse than the current problem in Ohio. Please do not approve this permit. Russell Daniel, MD, Santa Fe, NM 87508

Sent from the planet Remulac, a proud supporter of the 483rd Bombardment Group Legacy Fund. For more information go to www.483rdlegacyfund.org

Correspondence #51

From: betty kuhn
Sent: Sunday, February 26, 2023 10:30 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] NNSA's Surplus Plutonium Disposition Program

Dear Ms. Maxted,

I have been a resident of Santa Fe County, New Mexico for over 40 years. **[Comment 51-1][Response 24.2]** The proposed dilute and dispose program for surplus plutonium as well as the increased plutonium pit production, both currently proposed for LANL, are of great concern to myself and my family.

[Comment 51-2][Response 8.2] If these two programs go forward at LANL, the increased nuclear waste that would eventually be stored at WIPP would overburden the facility as well as extend the facility's use beyond its intended closure date and could slow the removal of already existing nuclear waste at LANL which is intended to be stored at WIPP.

[Comment 51-3][Response 23.3] The transportation of the nuclear waste involved in the dilute and dispose program would travel over 3,000 miles from Pantex, LANL, SRS, and eventually WIPP which would create substantial risks for accidents along those routes.

[Comment 51-4][Response 9.7] I ask that a new evaluation of the impacts that the proposed dilute and dispose program might have on the citizens of New Mexico. I believe that is called a PEIS.

Thank you for your consideration of our concerns.

Betty Kuhn
Santa Fe, NM

Correspondence #52

From: Mary
Sent: Sunday, February 26, 2023 11:27 AM
To: spd-p-eis@nnsa.doe.gov
Subject: [EXTERNAL] REJECT WIPP EXPANSION AND CHANGE OF MISSION!

Dear Maxine,

[Comment 52-1][Response 8.7] I strongly urge you to reject the expansion of WIPP, change in mission and process to change the form of plutonium!

[Comment 52-2][Response 8.1] - Surplus plutonium has never been considered appropriate waste for WIPP.

[Comment 52-3][Response 4.2] - Processing it into a powdered oxide turns it into the most dangerous form of plutonium.

[Comment 52-4][Response 23.3] - Transporting powdered, radioactive waste over such distances (3,300 mi.) for every shipment of the 34 tons increases the risk to communities.
- Transporting this waste for the rest of the century or longer risks lives & property.

[Comment 52-5][Response 9.3] - NNSA, the federal organization proposing this mission, has not communicated adequately with the public to explain its risks.
- Since the public is being put at risk, it has the right to be consulted.

Please protect New Mexicans!

Mary McGuire
28 Cuesta Rd
Santa Fe NM 87508

Correspondence #53

From: Steve Roddy
Sent: Thursday, March 2, 2023 5:05 PM
To: SPDP-EIS@NNSA.DOE.GOV
Subject: [EXTERNAL] Fw: Surplus Plutonium Disposition Program

To Whom It May Concern:

[Comment 53-1][Response 23.3] In the latest draft environmental impact statement, DOE plans to ship the triggers from its Pantex Plant, north of Amarillo, to LANL in Northern New Mexico on I-40. At Clines Corners, the trucks would proceed north on U.S. 285 to I-40 to the 599 by-pass around Santa Fe and back onto 285 to LANL. At LANL, the triggers would be pulverized into powder at the over-subscribed Plutonium Facility. From LANL, the powdered plutonium would be shipped to South Carolina for processing at the DOE's Savannah River Plant. The final leg of the 3,300-mile trip ends in southeast New Mexico at WIPP. Nevertheless, the draft statement does not provide an estimate of the number of years, nor the number of shipments that are planned.

Correspondence

LANL is located in a recognized seismic zone, above the regional drinking water aquifer and the Rio Grande and in a wildfire zone. WIPP is located in the productive gas and oil region of the Permian Basin in southeastern New Mexico.

[Comment 53-2][Response 7.4] It is not in the public interest to transport or process these triggers as envisions. Other ways must be found to safely dispose of them.

Sincerely,

Stephen Roddy
San Francisco, CA 94118

Correspondence #54

From: Cynthia Weehler
Sent: Sunday, March 5, 2023 2:37 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] DEIS Comments on Surplus Plutonium to Maxine Maxted
Attachments: My Comments on the NNSA Surplus Plutonium Disposition Draft Environmental Impact Statement.docx

Please find attached my comments. I ask that they be included in the public record.

Cynthia Weehler Co-Chair, 285 Alliance

Comments on the NNSA Surplus Plutonium Disposition Draft Environmental Impact Statement

1. **[Comment 54-1][Response 9.7]** Since this project involves transporting dangerous radiological waste through communities in at least 10 states, a Programmatic Environmental Impact Statement (PEIS) must be done so the effects on all the communities involved will be understood. **[Comment 54-2][Response 9.3]** This is a complex project which puts the public at risk. The public has not been informed, nor has it been given an opportunity to state whether or not it accepts such a risk .

[Comment 54-3][Response 9.7] Estimating risk for complex projects is incredibly difficult. NASA calculated that the risk of one space shuttle crashing as 1 in 100,000. NASA's assumption was made with the overconfidence that good engineering would make the shuttle program very safe.¹ Then the Columbia and Challenger space shuttles crashed, showing the risk was actually 1 in 66.

¹ Jones, H. (2018). *NASA's Understanding of Risk in Apollo and Shuttle.* NASA Ames Research Center.
<https://ntrs.nasa.gov/api/citations/20190002249/downloads/20190002249.pdf>

NNSA is demonstrating the same overconfidence. It is misplaced and puts civilians at risk of health and property loss. The public is not astronauts that chose to take a risk; it is civilians who don't even know they are test subjects. In proposing a program that vastly increases the miles traveled across the country -back and forth-over a long-time frame with the most dangerous form of plutonium, NNSA is unacceptably increasing the risk. One way it could minimize the risk is to do a full Programmatic Environmental Impact Statement (PEIS). NNSA has chosen not to do this, in spite of the National Academies of Sciences Surplus

Plutonium Disposition Report's recommendation:

RECOMMENDATION 5-5: The Department of Energy should implement a new comprehensive programmatic environmental impact statement (PEIS) to consider fully the environmental impacts of the total diluted surplus plutonium transuranic waste inventory (up to an additional 48.2 metric tons) targeted for dilution at the Savannah River Site and disposal at the Waste Isolation Pilot Plant (WIPP). Given the scale and character of the diluted surplus plutonium inventory, the effect it has on redefining the character of WIPP, the involvement of several facilities at several sites to prepare the plutonium for dilution, a schedule of decades requiring sustained support, and the environmental and programmatic significance of the changes therein, a PEIS for the whole of surplus plutonium that considers all affected sites as a system is appropriate to address the intent and direction of the National Environmental Policy Act and would better support the need for public acceptance and stakeholder engagement by affording all the opportunity to contemplate the full picture.²

² National Academies of Sciences, Engineering, and Medicine. 2020. Review of the Department of Energy's Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant. Washington, DC: The National Academies Press.
<https://nap.nationalacademies.org/read/25593/chapter/7#102>

2. **[Comment 54-4][Response 8.1]** Surplus plutonium is a waste that was never meant for WIPP. New Mexico's Senator Domenici warned against diluting pure plutonium to meet WIPP Waste Acceptance Criteria (WAC) standards. Yet diluting pure plutonium to meet WAC is exactly what the NNSA is planning to do. The NNSA must explain to the public why it is ignoring this limit that was clearly expressed when New Mexico agreed to host WIPP.

[Comment 54-5][Response 3.2] This need to inform the public is the conclusion drawn by the National Academies of Sciences Surplus Plutonium Disposition Report:

CONCLUSION 5-4 (updated Interim Report CONCLUSION 2): Public trust will need to be developed and maintained throughout the lifetime of the dilute and dispose program because the program will change and evolve as new knowledge is obtained, and modifications and potential changes to legislation will be required for the Waste Isolation Pilot Plant. These changes will require assuring the regulators and the public of the safety and security of the Department of Energy (DOE) plans. This is particularly challenging for the dilute and dispose program because of several factors: security classification of aspects of the planning (constituents of the adulterant, processing steps, security and safeguards assessments); early stage of program development with changes likely to occur as more information is known; and potential impacts that cross many states and DOE sites.³

³ National Academies of Sciences, Engineering, and Medicine. 2020. Review of the Department of Energy's Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant. Washington, DC: The National Academies Press.
<https://nap.nationalacademies.org/read/25593/chapter/7#98>

3. **[Comment 54-6][Response 23.4]** The public does not accept the need to truck shipments of powdered plutonium past our neighborhoods. This shouldn't be done for one trip, let alone thousands. For more than half the trip the waste will not only be in the most dangerous form of plutonium-239, if inhaled, but it will not be adulterated to prevent it from

being used by terrorists. It will also be transported in the somewhat safer TRUPACT containers that will carry it for the final leg of the transport. Instead, the Office of Secure Transportation will transport it, which is more than concerning because it has historically lacked the proper funds and employees to function as the carrier for the nuclear weapons it is supposed to transport, let alone the burden of a new mission carrying surplus plutonium. Decisions such as these show how poorly thought out the NNSA mission for disposing of surplus plutonium is, and yet the risks are being foisted on an unsuspecting public. We do not consent.

4. **[Comment 54-7][Response 8.1]** Surplus plutonium has never been an accepted form of waste for WIPP and it does not match the type of waste that was used to sell the WIPP project to New Mexico. NNSA, as powerful as it is, cannot simply change the rules to get rid of more waste and it cannot simply change the definitions of WIPP WAC in order to 'solve' its nuclear weapons' waste problem.

[Comment 54-8][Response 5.5] I bought my first and only house in 2017. I knew it was on the designated route for radioactive weapons' waste from LANL to WIPP. I made the carefully calculated decision to take the risk that an accident wouldn't happen between then and 2024, when WIPP shipments were scheduled to stop. Now NNSA is unfairly changing the parameters of everything I based my decision on. When a person can't choose the amount of risk they're willing to take, it is government overreach. When the government forces people into situations of risk that they not only didn't choose, but didn't even know were possibilities, it is discriminatory and dishonest. And when that decision threatens the only investment they have, their health, and their safety, it should be illegal. NNSA doesn't have the moral authority to take away everything the people of the country have worked for.

5. **[Comment 54-9][Response 8.5]** Repositories must be built in other states so that New Mexico is not the only state to bear the burden of disposing of the nation's nuclear weapons' waste. What new waste stream will follow surplus plutonium at Pantex? This use of WIPP violates New Mexico's legal agreements with the Department of Energy (DOE) and Congress that promised more repositories would be built in other states. More repositories would obviate the need for this irresponsible transport of deadly waste through state after state and for decades to come.

6. **[Comment 54-10][Response 17.12]** Sandia National Labs⁴ reports the form of powdered plutonium that would be generated at LANL, if accidentally released, would be almost impossible to clean up. Farm and rangeland would need to have the topsoil removed and buildings like homes, schools, and businesses would need to be abandoned. Plutonium takes 480,000 years to completely decay. Plutonium takes 480,000 years to completely decay.

⁴ (Site Restoration: Estimation of Attributable Costs From Plutonium-Dispersal Accidents, Sandia National Laboratories, 1996, SAND96-0957; <https://www.osti.gov/biblio/249283>)

7. **[Comment 54-11][Response 22.1]** NNSA has not surveyed communities that would be affected or addressed environmental justice issues. **[Comment 54-12][Response 9.3]** Indeed, almost no communities along the 3,300-mile route even know this expansion is being planned or how it puts them at risk. This secretive mission is antithetical to American values.

8. **[Comment 54-13][Response 23.4]** The burden the NNSA is requiring of others is astounding. States through which this waste moves would be required to provide and fund:

- emergency preparedness responses
- health facilities located within reasonable distances to all areas of the route
- clean up after an accident

Losses to land area, buildings, and economies like farming, ranching, dairy, and tourism, would be both state and individual burdens. Even the appearance of contamination harms these industries.

Individuals would be required to provide health care after exposure that causes cancer to develop years later. Due to the difficulty in identifying the cause of latent cancers and given the federal government's history of not acknowledging its role in creating situations that led to cancers in populations, individuals would be not be compensated (Trinity Downwinders).

9. When inhaled, powdered plutonium-239 causes cancer 100% of the time, according to the Nobel Prize winning International Physicians for the Prevention of Nuclear War. The transport of this waste passes thousands of schools, with children most at risk from developing cancers. The public does not accept being given such risks for their children. Parents do not consent.

Sincerely,

Cynthia Weehler

Co-Chair, 285 Alliance

Correspondence #55-1

NATIONAL NUCLEAR SECURITY
ADMINISTRATION PUBLIC HEARING
(SPDP) (EIS)
11 FINAL
HELD ON
TUESDAY, JANUARY 24, 2023
6:59 P.M.
PECOS RIVER VILLAGE CONVENTION CENTER
711 MUSCATEL AVENUE
16 CARLSBAD, NEW MEXICO

MR. GOODMAN: So now we are ready to begin with the public comment portion of tonight's meeting to hear from you. And to start, we'll request that comments last no longer than three minutes, and we will be tracking that with a counter on the screen. And as your time begins to run short, I'll let you know and when your time expires, I will respectfully ask you to conclude your comment.

We definitely appreciate you being respectful of the project staff and your fellow members of the public. Again, if time permits, when everybody has had the opportunity to provide a first comment, you may have the opportunity to provide a second comment.

Before providing the oral comments, you are requested to state your name and your affiliation, if any, and to provide the correct spelling of your names for the record. However, you may also request to make your comment anonymously.

Correspondence

As mentioned previously, we won't be responding to comments here tonight. Response to the comments will be included in the final EIS. Okay. So with that, we'll go ahead and start with the first commentor, which I see is public officials to start, so Kyle Marksteiner. Sorry if I got that wrong, Kyle. I believe you have a comment that you were reading for --

MR. MARKSTEINER: Yes, sir. And thank you. So my name is Kyle Marksteiner. That's K-y-l-e, M-a-r-k-s-t-e- -- wow, this is counting toward my times -- that doesn't seem fair -- s-t-e-i-n-e-r, and I'm reading this on behalf of Carlsbad Mayor, Dale Janway.

Thank you for the opportunity to comment to the National Nuclear Security Administration regarding the Environmental Impact Statement for the Surplus Plutonium Disposition Program. My name is Dale Janway. I'm the mayor of the City of Carlsbad.

[Comment 55-1-1][Response 5.3] I support the proposed action outlined on page 17 of the document summary which proposes processing surplus plutonium into plutonium oxide, diluting it to prevent use and disposing of the resulting waste at WIPP. This is a safe, cost-effective proposal that it is better than the proposed alternative or taking no alternative. Members of Carlsbad Nuclear Task Force have reviewed the NNSA draft EIS and believe it to be complete.

Additionally, the EIS is one phase of an extensive process that has offered multiple opportunities for public comment. **[Comment 55-1-2][Response 4.3]** In 2020, the National Academies of Science Committee said that the Dilute and Dispose Plan was technically sound. The citizens of southeast New Mexico understand the efficacy of the Dilute and Dispose Plan and that disposal at WIPP is viable.

Carlsbad is very proud to be the house community for WIPP as we understand and enjoy the vital role we serve towards national security. **[Comment 55-1-3][Response 8.6]** We have a very long, positive history with the Department of Energy and see this as another opportunity to support our country. We have certainly benefited from hosting WIPP in terms of job creation and the strong academic presence that WIPP has delivered to our community.

But, of course, the economic benefit would not be worthwhile with a project not handled safely. WIPP has an exemplary safety record from transportation through emplacement. We should continue to explore opportunities that would put this facility to good use.

Thank you for the opportunity to comment. We are very proud to offer our support. This comment has also been submitted via email and I would -- if there's time at the end of it, I would like to comment myself, too. Thank you.

Correspondence #55-2

MR. GOODMAN: Thank you. Next up, Edward Rodriguez.

MR. RODRIQUEZ: My name is Edward T. Rodriguez. That's E-d-w-a-r-d, the letter T for Trevino, and R-o-d-r-i-q-u-e-z. Thank you for the opportunity to comment. I am City Council for Ward 1 and Mayor Pro Tem for the City of Carlsbad.

[Comment 55-2-1][Response 8.6] And for the sake of brevity, echoing what the mayor's statement just made, I would like to further point out that WIPP is an excellent, excellent neighbor. They are a good citizen. They provide a lot of services to the children,

the kids, their coaches, their Bible study leaders, so I mean these are people we know. These are people we care about. We see them in church. We eat dinner with them. These are our kids. These are our dads, our brothers, our sisters.

We, in Carlsbad, don't want anything that's going to put anyone we love in danger and that's why I, as an elected official, I am in full support of this program. I believe in the science based on the trees that died for us to get this paperwork to us today. Every -- the studies have been very thorough, they've been very directed, they've been transparent, and I thank you for all of that. And I stand in full support of the Dilute and Dispose Program within the Waste Isolation Pilot Project . Thank you.

Correspondence #55-3

MR. GOODMAN: Thank you. The next is J.S. Chavez.

MR. CHAVEZ: Good evening. Name is J.J. Chavez, J. and a J. Chavez, C-h-a-v-e-z. City Council for the City of Carlsbad.

My name is J. J. Chavez. I'm here today to speak as a member of the Carlsbad City Council. As a member of the city council, **[Comment 55-3-1][Response 8.6]** I am very proud to support the Waste Isolation Pilot Plant and come here specifically here today in support of the proposal to use WIPP for additional surplus plutonium. I can assure you that my friends and neighbors all support this process as well.

This is a very pro-WIPP community, and we take pride in what we do to support the nation. In fact, this is just another opportunity to help serve our country.

I know the process of what to do, but this waste has been discussed since 1993 and the Department of Energy and NNSA have left no stone unturned when it comes to evaluating the options. I believe that the document recommendation of dilution and disposal at WIPP is clearly the best option for safety reasons and for the purpose of avoiding prohibited cost.

[Comment 55-3-2][Response 8.6] The additional volume of metric tons being discussed today will not impact WIPP's volume capacity. It will just be a drop in the bucket compared to more than the 12,000 shipments already safely in place at WIPP.

I also understand that the process of handle waste for WIPP is extremely rigid, that the material being sent here do not produce any new safety or health risk, and WIPP transportation process remains the safest in the industry. Thank you again. Thanks.

Correspondence #55-4

MR. GOODMAN: Thank you. Sorry, I got the first J right and the second J wrong. Are there any other elected officials that may join that did not sign up that would like to now make a comment? Okay. Seeing none, we'll move on to the public. Jack Volpato.

MR. VOLPATO: Thank you for coming to Carlsbad. I am Jack Volpato. Last name is V-o-l-p-a-t-o. I am the chairman of the mayor's Nuclear Task Force. I am also a former county commissioner, and I come to bear testimony to say that this is the safe way to do things. We appreciate you coming.

[Comment 55-4-1][Response 4.3] And this alternative proposed, it's nothing new.

Correspondence

We've done dilute disposed plutonium in the past, and we think this is just an extension and a continuation of that process with nothing new, no increased safety risks to any of the workers or to the public.

[Comment 55-4-2][Response 8.6] We believe WIPP's transportation safety record of over 13,000 safe shipments without an accident speaks of itself. Nobody in transportation has a safety record like WIPP, and we continue to strive to keep it that way.

Community support and understanding of this project, I think is overwhelming. Our group has collected all around 500 signatures, which we will be submitting for testimony for this group in favor of the Dilute and Dispose Program.

We think this is also a patriotic duty for our community to help solve a problem with excess plutonium to get it safely stored away so it could never be used for a weapon and be safe up off the environment. Leaving it and not doing a thing with it, we feel is counterproductive and dangerous.

If -- you know, if we don't put it in WIPP, where would we put it? It's the most ideal place. It's built for what it's done. People are trained for what they do. The risk is very minimal, and I believe that this is the preferred alternative. Thank you very much.

Correspondence #55-5

MR. GOODMAN: Thank you. Next, Nick Maxwell.

MR. MAXWELL: Hey, my name is Nick Maxwell, and I'm one of the county residents of Lea County. And today, my comment is towards the Department of Energy's public hearing today in Carlsbad regarding their plan to handle, treat and dispose of surplus plutonium in New Mexico to include those plans to ship 34 metric tons of surplus plutonium in the form of plutonium pits or the triggers and non-pit plutonium for nuclear weapons to process at Los Alamos National Laboratory and to dispose at the Waste Isolation Pilot Plant.

This is the Department of Energy's sixth attempt to address how to handle surplus plutonium so that it could no longer be used in nuclear weapons. The Department of Energy's plan is found in the draft Surplus Plutonium Disposition Program Environmental Impact Statement, which is as we're now open for public comment until February 14th.

Previous Department of Energy attempts did not include Los Alamos National Laboratory and Waste Isolation Pilot Plant. That has changed. LANL and WIPP are now the Department of Energy's prime choices.

Since 1994, the Department of Energy has spent billions of dollars and held dozens of public meetings and hearings about how to prevent access to surplus plutonium. Immobilization is one method but in 2002, the Department of Energy canceled the immobilization program, "due to budgetary constraints," even though thousands of public comments supported immobilization of all the plutonium.

I'm here to tell you tonight three things. First, **[Comment 55-5-1][Response 5.5]** no additional plutonium should be brought to Los Alamos National Laboratory. Second, **[Comment 55-5-2][Response 8.2]** the Waste Isolation Pilot Plant has a limited mission and does not have the capacity for all the surplus

plutonium. Lastly, **[Comment 55-5-3][Response 7.3]** the Department of Energy must immobilize and safely store the plutonium until technically sound suitable disposition facilities become available.

[Comment 55-5-4][Response 26.1] If it's not clear, I object to the analysis. Thank you for taking my comment. Welcome to Eddy County. I hope you enjoy your stay in southeast New Mexico.

Correspondence #55-6

MR. GOODMAN: Thank you. Next, we have Aaron Irving.

MR. IRVING: Hello. I'm Aaron Irving. It's A-a-r-o-n, last name is I-r-v-i-n-g. I'm a resident of Carlsbad, a business owner locally and also representing the Chamber of Commerce Board of Directors here in Carlsbad.

[Comment 55-6-1][Response 8.6] Thank you for the detailed research that's been done on these alternatives. We're definitely in support of the preferred alternative. We do have plenty of room in the WIPP facility for this. I believe it's safe -- a lot safer to have it underground than it is to have it above ground. And I have had the opportunity to tour the WIPP site and see all of the detailed procedures that go into place to making sure it's done safely here. And I know those procedures are in place in the other places where it's put together in the TRUPACT containers and all of that. And I know that WIPP has, as you said, the contractors there, their outside contractors that ensure that's done correctly as well.

So thank you, and **[Comment 55-6-2][Response 5.3]** I definitely express support for the preferred alternative of the plutonium dilution.

Correspondence #55-7

MR. GOODMAN: Thank you. Next, Mark Schinnerer.

MR. SCHINNERER: You did that correctly. Very good. Mark Schinnerer. Last name is spelled S-c-h-i-n-n-e-r-e-r. Thank you for being here. Thank you for this opportunity to comment on this project.

And Carlsbad is a unique community. Carlsbad is a community that has worked with the Department of Energy for many, many decades to solve a problem. So many times, people want to kick the can down the road and they say not in my backyard, but that's not Carlsbad. Carlsbad is about finding solutions, stepping up and using the knowledge and resources that we have to find those solutions.

When I was looking at this EIS and this process to dilute and dispose of this plutonium, I was taken aback a little bit by the recent Rural Economic Forum, where you get speeches and people railing about CO2 and climate change and how it's going to kill us within just a few years.

One of the approved methods for our carbon sequestration is to capture that carbon to mix it with water, actually, and inject it into a geologic formation, the salt rock, which then becomes -- I think it's a calcite. In fact, relocking into the geologic formation, which is very similar in a respect to what you're proposing here.

[Comment 55-7-1][Response 4.3] To mix the plutonium so it becomes inert and not recoverable and then to dispose of it in a geologic formation has been proven in a salt bed that's been proven that will encapsulate and sequester that material from now on. And so if it's okay, the CO2 which is going to kill us in a few years, this should be okay for plutonium, which is much more deadly in my mind.

[Comment 55-7-2][Response 8.6] WIPP has a great track record for transportation, as somebody's already mentioned. We have a great reputation for working with the department of solving a problem. We understand risk. Risk is inherent in our lives but at some point, somebody has to stand up and say we take on the challenge and we take on the risk to solve a problem. This is a problem that was created decades ago, and it's time to move on down the road. It's time to solve the problem.

You have come up with a very valuable option, a very sound option to solve this problem to reduce the impact and to be able to dispose of it in a very appropriate way so that it will never be retrieved again and can be used again.

So we, as a community, I'm a community member, we support the program, we support the project, and we support this process to dispose of this very important material. Thank you.

Correspondence #55-8

MR. GOODMAN: Thank you. Okay. We can go back to Kyle to give his public comment.

MR. MARKSTEINER: Okay. Do I need to spell my name again or not?

MR. GOODMAN: I think we (inaudible).

MR. MARKSTEINER: Okay. It's Kyle Marksteiner, M-a-r-k-s-t-e-i-n-e-r. I'm a public information officer for the City of Carlsbad. One of my duties is to support the Carlsbad mayor's Nuclear Task Force, which advises Mayor Dale Janway and other elected officials on WIPP.

THE REPORTER: Pardon me. If you could slow down just a touch.

MR. MARKSTEINER: Okay. I'm trying to get it in the time. **[Comment 55-8-1][Response 4.3]** The Nuclear Task Force has been following this EIS process for some time now, strongly supports the preferred alternative of dilution and disposal. Unfortunately, several of our members are up in Santa Fe today for the legislative session. Some will be submitting written comments after this meeting.

The task force also has a position paper that has been submitted for the record. And as Mr. Volpato said, we have a compilation of signatures that we'll be submitting for the record.

[Comment 55-8-2][Response 9.5] I would like to address the issue of proximity when it comes to the metric of weighing public support and opposition for a project. I have no doubt that you will receive some comments in opposition to this waste being sent, especially from individuals who reside several hundred miles away. I respect the right to do so, but please do not ever lose sight of the fact that the people who actually live close to WIPP are very strongly in favor of this alternative.

One of the claims has been the community of Carlsbad has stated that our opinion is the only one that matters. We have not made that statement, and we have and will continue to make the statement that our opinion is the most important because, yes, proximity is the key when determining consent for any project. If you were to put in a football stadium, a highway, a park or anything, you would logically assign the most weight to the opinions of the people who live nearby.

I do not think that has always been the case for WIPP. Supporting a project, unfortunately, does not draw as much attention as opposition. And in the past, (inaudible) singing songs about being opposed to WIPP has drawn more media headlines and ultimately more political attention than guys in khakis quietly saying that they support it.

So I encourage the NNSA, and, for that matter, other media outlets and government agencies here who are watching tonight to consider the value of quiet local support.

[Comment 55-8-3][Response 8.6] As those of you here tonight, both officially and unofficially, evaluate this in future nuclear projects, I would encourage everyone to stop lumping WIPP in with other issues such as uranium mining and downwinders at the Trinity site.

There seems to be this ongoing rhetoric in the state that WIPP is yet another symptom of New Mexico's list of nuclear woes. I respectfully suggest that WIPP belongs on the far other end of the equation. WIPP is a solution and a very good one.

Those of you here tonight don't need me to tell you that this process has been scrutinized for more than 20 years, and that the preferred alternative is dilution and disposal at WIPP. WIPP is clearly the most sensible option, and thank you again for your time.

Correspondence #55-9

MR. GOODMAN: Thank you. Okay. So let's -- I'm sorry. I skipped the very first person in the public, Mary, so sorry about that. Mary Landreth. Apologies for that.

MS. LANDRETH: Yes, good evening. Mary Landreth, M-a-r-y, L-a-n-d-r-e-t-h, and I'm a shorty.

I've been resident of Carlsbad since 1975. **[Comment 55-9-1][Response 5.5]** One of my comments is that I really do not trust LANL as a place for any industrial (inaudible) activity, safety training, trained staff, you know, a little bit not so great.

I've gone through quite a few scary episodes, reading about maybe a couple of pieces of plutonium almost coming together and causing a criticality so -- and other things. So I would like you to mark LANL right off at the top, and **[Comment 55-9-2][Response 5.4]** I think all this down-blending should be done in Savannah River.

[Comment 55-9-3][Response 27.7] And I think that spent nuclear fuel is a little bit more of an important problem. What are we doing with spent nuclear fuel because it is actually more radioactive when it's spent.

[Comment 55-9-4][Response 8.5] And personally, I don't want eastern New Mexico to become a nuclear waste dump. And by the way, New Mexico does not have a nuclear plant in it, so why are we taking, you know, other people's waste.

[Comment 55-9-5][Response 7.5] I think, really, the best solution would be to improve the storing facilities at Pantex and leave it there. You could spend some money increasing the security, making improvements, and I think it would probably be a lot less than this. Because first of all, I don't know how much this is going to cost, but I imagine it's way up there.

[Comment 55-9-6][Response 9.3] And just as a note, the Secretary of Energy, Granholm, said that she is pursuing a strategy for a consent-based interim storage facility. And to me, consent-based would be a referendum from the state of New Mexico, not a small city. Let's have a referendum so all citizens of New Mexico can have a say in this. We all need to speak. We need to, you know, have a right to vote on this and we don't need --

[Comment 55-9-7][Response 8.7] We need a permanent site for this stuff, you know. Where is the permanence? You know, we keep making pits and we're going to have to keep putting into WIPP, and WIPP is just going to keep getting -- I mean when does this end? I don't think there's an end to it, and I don't think WIPP was meant to become America's only nuclear waste depository.

MR. GOODMAN: Ma'am, that's three minutes.

MS. LANDRETH: Thank you very much for letting me take these comments.

Correspondence #55-10

MR. GOODMAN: Thank you. Sorry for skipping you. Next, Lorraine Villegas. You are ready to go.

MS. VILLEGAS: I'll make it quick. Lorraine Villegas, L-o-r-r-a-i-n-e, V-i-l-l-e-g-a-s. I'm from Hobbs, New Mexico. I live about less than 60 miles away from the WIPP site, not several hundred, contrary to popular belief.

I work 12-hour days, eight days a week, and I work about less than 10 miles away from the WIPP site. I travel these roads daily. I've seen wrecks that you wouldn't want to see. I've seen semis get hit by trains. **[Comment 55-10-1][Response 8.7]** And even if it's indestructible and there would never be a breach, I'm just uncomfortable with that amount of material being constantly present.

[Comment 55-10-2][Response 8.2] And also, there were federal limits set in place through permits and such, and you guys wanted to only bring a certain amount. Now, you guys are wanting to expand way beyond that, and I think you guys should keep your word. You should stick to your word. Don't do the people of this community that way.

[Comment 55-10-3][Response 8.7] Most people who support this are commissioners or people who came here to work in the industry. Most jobs will be service -- I mean jobs where people are handling the waste. I think a lot of jobs are going to come from out of state, which I understand they're trying to diversify the economy, but we already have a strong economy in oil and gas.

I don't think it's worth any risk to the taxpayers who also pay for things like this federally and state. So, yeah, you hold your word and let's go ahead and be happy with what we have already. And yeah, that means in Spanish, enough.

Yeah already, enough is enough. Let's not be greedy. Let's not try to -- we should be happy with what we had already.

We let you guys here. It's already established. Let's just let what we have -- I mean we're happy with that. We're not trying to shut everybody down. We're just -- we're content with what we have already. So thanks for your time.

Correspondence #55-11

MR. GOODMAN: Thank you. It looks like we have a couple others. Jeannie Watson.

MS. WATSON: Good evening. Thank you for the opportunity to comment to the NNSA regarding the Environmental Impact Statement for the Surplus Plutonium Disposition Program.

My name is Jeannie Watson, and I'm a board member of the Carlsbad Chamber of Commerce. **[Comment 55-11-1][Response 4.3]** I support the proposed action which processes surplus plutonium into plutonium oxide, diluting it to its present use -- to prevent its use and disposing of the resulting CH-TRU waste at WIPP. I believe this to be a safe and cost-effective method that is better than the other proposals being presented and certainly better than taking no action at all.

[Comment 55-11-2][Response 8.6] On behalf of the Carlsbad Chamber of Commerce, we are proud to have the Waste Isolation Pilot Project in our own background. The strong economic presence has enhanced job creation and provided many other economic benefits to the Carlsbad community. We applaud the Waste Isolation Pilot Project safety record from transportation to emplacement, and we have faith that with their extensive expertise, the safety of this project will continue to be exemplary. Thank you for your opportunity to comment.

Correspondence #55-12

MR. GOODMAN: Thank you. And next, Norbert Rempe.

MR. REMPE: Good evening. My last name is spelled R-e-m-p-e. I have been a resident of Carlsbad since '79, and I have worked at WIPP for 23 years. I'm retired from WIPP.

As such, I'm quite familiar with WIPP and its environmental parameters. **[Comment 55-12-1][Response 8.6]** And I have looked at this Environmental Impact Statement, and I cannot find anything in there that would preclude the safe disposition of this material at WIPP.

[Comment 55-12-2][Response 2.4] However, I do not necessarily welcome this surplus plutonium with open arms, as so many other people tonight did. I am extremely skeptical, not so much of the environmental or other aspects of safety, but of the underlying rationale for this entire program.

This started in, actually, 1993. That was 30 years ago when President Clinton, actually, at the time mandated 50 tons of surplus plutonium to be gotten rid of. Then we have had a variety of agreements; one specifically with Russia. I think that is one of the main drivers for this entire program. The world situation has changed significantly, and I am not aware of any government publication, any government resolution, et cetera, that said we have

Correspondence

actually looked at this again, and this is still the right thing to do.

This decision was made under quite different circumstances from today. So while I have absolutely no environmental concerns or safety concerns about your proposal, I really question the underlying rationale for this entire program. And as a concerned citizen, I would love to hear from my government why you are still thinking that this is the correct thing to do.

I don't know, and I don't think anyone in this room does, and I don't think anyone at the other locations does know that. And I think that key question, while you may not be the experts to answer that question, I think you better pass on that concern and that question. Because without the proper answer for that one, I think everyone else, it doesn't really matter.

[Comment 55-12-3][Response 7.2] And let me just tell you, the American Nuclear Society, a couple of years ago, published a position statement on the disposition of surplus plutonium where they actually advocated of using it in advanced reactors, saving it, not disposing it as surplus. And I would be glad to give this to anyone of you, which one.

##Note: Refer to EIS0549-SPDP-DR-000044 for handout.##

MR. GOODMAN: All right. Thank you. So that is everybody that has signed up. If you've been now inspired to make a comment or you would like to make a second comment, you are welcome to do so. We'll open up the microphone for anybody that would like to come up and give a comment now.

Okay. Seeing none, I'll go ahead and thank you all for your time and your interest, and for a lot of people traveling quite some distance to come here to this meeting tonight to make your thoughts and opinions heard.

Again, if you chose not to make a comment here tonight, you have a number of other options for doing so. Do you mind going back to the slide right before this one?

So you can see here on the screen, the options that you have for making a comment, and I would certainly encourage you to do so with one of these methods. Like both Maxcine and Virginia said, the NEPA process is very important and public input is vital to the NEPA process, so I would encourage you to make your comment.

Again, please note that the draft EIS comment period ends February 14th. And I will go ahead and again thank everybody for your time and your interest and respect, and turn it over to Virginia and Maxcine.

Correspondence #56-1

NATIONAL NUCLEAR SECURITY ADMINISTRATION
PUBLIC HEARING
11 (SPDP) (EIS)
HELD ON
THURSDAY, JANUARY 26, 2023
6:30 P.M.
FULLER LODGE ART CENTER, PAJARITO ROOM
2132 CENTRAL AVENUE

Surplus Plutonium Disposition Program Final Environmental Impact Statement

16 LOS ALAMOS, NEW MEXICO 87544

MR. GOODMAN: -- comments last no longer than three minutes, and I'm going to work on getting a timer up on the screen for that. And as your time begins to run short, I'll let you know; and when your time expires, I will respectfully ask you to conclude.

We do appreciate you being respectful of the project staff and your fellow members of the public.

If time permits, when everybody has had the opportunity to provide a first comment, you may have the opportunity to provide a second comment.

Before providing oral comments, you are requested to state your name and affiliation, if you have one, and provide the correct spelling of your names for the record, however, you may request to make your comment anonymously.

As I mentioned before, we won't be responding to comments here tonight --(indiscernible) the EIS.

So with that, we can go ahead and start with the first commenter, who is Jay Coghlan.

MALE SPEAKER: One second. Is that -- are you still good?

MR. GOODMAN: Mm-hmm.

MALE SPEAKER: Yeah. Come on up.

MR. GOODMAN: Can you hear me?

MALE SPEAKER: All right.

MR. COGHLAN: I'll face the audience.

This thing -- this thing working?

MALE SPEAKER: Yep.

MR. COGHLAN: Okay. It's a little short for me. Don't run my time yet, okay?

MALE SPEAKER: Would you like a tissue for -- wherever -- you can just grab it or --

MR. COGHLAN: No. I got to read this.

MALE SPEAKER: Okay.

MR. COGHLAN: Doesn't this thing raise?

MR. GOODMAN: Okay. Why don't you hold it? This one --

MR. COGHLAN: No. I need to read this (indicating).

MR. GOODMAN: Okay.

Correspondence

MALE SPEAKER: Here, I'll just hold it.

MR. COGHLAN: No. Let's --

MALE SPEAKER: That's the highest it goes.

MR. COGHLAN: There we go.

MALE SPEAKER: Let me lock it into place. All right. You're all set.

MR. COGHLAN: Okay. Thank you very much. Sorry to drop that thing.

I'm going to start off saying how much I love this building. I built a couple of log cabins, and I used to be a logger. Just to see vertical logs in a building is -- that's really unique, and it's -- it's so historic and everything.

So with the pleasantries over, I'll launch into DOE.

[Comment 56-1-1][Response 27.9] We always hear a rote description of what the NNSA mission is, and it's to provide a safe and reliable deterrence. This needs to be critically examined.

We already have an extensively tested stockpile that's proven to be reliable. And what Los Alamos, Livermore, and Sandia are doing is introducing uncertainty into the stockpile through new design. So why -- why fix something that's not broken?

And the other thing that needs to be critically examined is the notion of deterrence. That's not what we really have. We have a hybrid of deterrence plus nuclear war fighting capabilities, and that's why we have thousands of weapons instead of just a few hundred for deterrence.

So that may seem tangential, but I always see this rote description of the NNSA mission at the beginning of these presentations, and that mission statement needs to be critically examined.

Now, that said, I've been in this business for a while, and I'm kind of a student of the DOE screwups, and I can rattle off a dozen projects that have gone over schedule, over budget, et cetera.

There's the CMRR here. There's the waste treatment facility at Hanford. There's the uranium processing facility at Y-12.

And most notably and relevant to this is the MOX facility at Savannah River. And I -- I laughed to myself during this presentation when I saw it stated in writing that MOX is no longer a viable alternative. That's a very bland statement for \$7 billion of taxpayers' money already being wasted, and for which there's been no accountability.

Now, I -- I -- I didn't mention my name and affiliation. Jay Coghlan, Nuke Watch New Mexico. We will submit extensive written comments.

And knowing that time is so short right here, I'll get down to the key thing.

[Comment 56-1-2][Response 7.3] MOX was a disaster. And back in -- up to 2002, DOE

was pursuing a dual-track strategy of both MOX and immobilization. And DOE cancelled immobilization, which is actually a proven method at the defense waste treatment facility at Savannah River.

Immobilization was essentially vitrification, but it was also with the addition of high-level waste to make it proliferation-resistant. So now that MOX has been a debacle and, you know, wasting billions, we should go back to immobilization.

And so far, in my reading of the -- I've only skimmed the summary -- but there's no real consideration of immobilization, and that's exactly what we should go back to.

And quickly, the advantages --

MR. GOODMAN: Sir --

MR. COGHLAN: -- to it --

[Comment 56-1-3][Response 7.3] Yeah, gotcha. -- immobilization down at Pantex -- that's where the pits are -- you reduce all the transportation risk right there. You save money. You relieve pressure on WIPP. You make a truly proliferation resistance through the addition of high-level waste. And that's the alternative that should be fully pursued in this EIS project.

So I hope that citizens seriously question what's going on.

[Comment 56-1-4][Response 26.1] I'll just close with the -- the observation. There's a reason why the Department of Energy has been on the Government Accountability Office's high-risk list since 1991. That's a list of project mismanagement. And DOE's behavior should be corrected, things should be done right, and we should bring a halt to the waste of taxpayer dollars. **[Comment 56-1-5][Response 7.3]** And this NEPA process, again, should consider immobilization.

So that -- that distills my comment right there. Thank you.

Correspondence #56-2

MR. GOODMAN: Thank you.

Next we have Mai Ting.

MALE SPEAKER: Is that good for you?

MS. TING: Hello? Hello? Good?

FEMALE SPEAKER: Can you hear her?

FEMALE SPEAKER: Yes.

MS. TING: Okay. I'd like to face this way, please.

MALE SPEAKER: Okay. Is that good for you?

Correspondence

MS. TING: Thank you.

MALE SPEAKER: Perfect.

MS. TING: Good evening. My name is Dr. Mai Ting. I'm a local doctor, and I am a scientist. I'm a scientist from taking care of people and children, and I speak from my being a doctor as well as a mother and a grandmother.

[Comment 56-2-1][Response 26.1] Now, as far as I -- I want to appreciate and thank you for doing a valiant try of trying to explain this to us. But you know, it sounded kind of like going to a Chinese restaurant -- you know, plan A, plan B, take two from here and three from there. So, you know, it just seemed like a lot of smoke to me.

[Comment 56-2-2][Response 4.2] Now, I would also say plutonium is -- one molecule of plutonium will destroy each and every one of you. So we're talking about a very, very dangerous substance, and I don't think you can oxidize it away. I'm not a nuclear scientist, but I don't think you can get rid of it.

[Comment 56-2-3][Response 7.2] I do say that we could, perhaps, recycle, reuse it. Thank you.

Correspondence #56-3

MR. GOODMAN: Thank you.

Next up, Anna Hansen.

MS. HANSEN: Good evening. Can you hear me?

FEMALE SPEAKER: No.

MS. HANSEN: Okay. Can you hear me now?

FEMALE SPEAKER: Kind of.

MALE SPEAKER: A little better.

MS. HANSEN: Hello? Hello?

FEMALE SPEAKER: That's better.

MS. HANSEN: Okay. So my name is Anna Hansen. I am a Santa Fe County Commissioner. I am the Chairwoman of the Board, and I have submitted a letter from the entire Board of Santa Fe County with their concerns about the transportation of surplus plutonium.

[Comment 56-3-1][Response 23.4] The entire proposal, whatever is chosen, has the potential to put millions of people at risk for financial and health impacts from potential accidents or incidents and dangerous disposal of surplus weapons-grade plutonium. This seems like a tremendous amount of transportation that is unneeded. Santa Fe County's approximate 150 residents living in close proximity to the transportation corridor need -- needed for the processing will be negatively impacted by LANL and be -- whatever method is selected.

[Comment 56-3-2][Response 9.3] I also want to state for the record that I don't -- I consider this hearing invalid because it does not include my constituents. This meeting should have been held in Santa Fe County. There is plenty of places to hold this meeting.

This is a very small representation of the amount of people who care about this. Driving up this hill in January is incredibly dangerous and is very concerning to my constituent. And that is why there are not more people here.

[Comment 56-3-3][Response 4.2] In my comments, I comment on the dilute and dispose process is unproven; dilute and dispose process would increase radioactive waste; dilute -- limited dilute and dispose to the same location; LANL's track record of nuclear safety incidences, which should not be overused or used beyond its intended purpose; concerns over transportation of surplus weapons-grade plutonium; environmental and social justice impact on frontline communities; monitoring and inspection; **[Comment 56-3-4][Response 9.1]** more DOE, EPA, and NMED vetting; **[Comment 56-3-5][Response 9.7]** and a need for a new comprehensive programmatic environmental impact statement.

[Comment 56-3-6][Response 17.12] In conclusion, our lives, land, and aquifers must be protected from radioactive contamination, which could result from accidents, radiation, releases, or leaks or terrorist action. **[Comment 56-3-7][Response 9.3]** Local stakeholders such as the county must be engaged early and as often as possible to ensure that decisions are being made by those who will be affected by them.

So my request, once again, a public hearing in Santa Fe. And my time is up. But I thank every single one of you for coming here and being here and taking this opportunity to comment.

Thank you.

Correspondence #56-4

MR. GOODMAN: Thank you.

Next we have Scott Kovac.

MR. KOVAC: Hi. Thank you, everyone. I'm Scott Kovac with Nuclear Watch New Mexico.

How is that volume?

FEMALE SPEAKER: It's good.

MR. KOVAC: Okay. Good. Thank you.

First off, I wanted to thank you all for the extension in the comment period. I appreciate that.

[Comment 56-4-1][Response 25.1] And I'd like to say that we want to make it clear from the start that we are strong advocates for the permanent disposal of plutonium and to prevent it from being used again in nuclear weapons. **[Comment 56-4-2][Response 4.2]** However, we strongly question the NNSA preferred alternative method of disposal, the -- the -- the dilute and dispose alternative. **[Comment 56-4-3][Response 8.5]** The

Correspondence

waste isolation plant must not be the only option for disposal of transuranic waste that is analyzed.

Yeah. As -- as Jay mentioned about the immobilization, three facilities have been cancelled. The immobilization path was elimination. Now we're here in 2023 reconsidering more options.

We contend that if DOE started immobilization in 2000 when this first started thinking about this, immobilization would be complete now and the plutonium would be disposed.

I wanted to thank the NNSA for the references and the document and the EIS. I did find one link that was broken. I'll be certain to let you know if I see any other ones.

[Comment 56-4-4][Response 9.5] The -- I was looking for the response to scoping comments. There -- it was pretty good. But I would like to see an actual copy of all of the scoping comments submitted, if we could. You -- NNSA has this habit of taking the scoping - taking comments, categorizing them, and then summarizing them. So by the time that you categorize them and summarize them, you've kind of lost some of the nuances possibly and some of the -- some of the facts that we're trying to get out there.

[Comment 56-4-5][Response 4.1] Meanwhile, NNSA must provide the nature of the adulteration -- adulterant -- I'm sorry -- the adulterant used in the downblending process.

[Comment 56-4-6][Response 17.5] Also I would like to speak about the seismic issues.

The laboratory is -- in NNSA is moving ahead without an updated probabilistic seismic hazard analysis. It's using the numbers, the current numbers, from the U.S. Geological Survey instead, and when, in fact, there should be a PSHA, a probabilistic seismic hazard analysis, out that the EIS should be working off of. And -- but lacking that --

MR. GOODMAN: Sir, that's three minutes.

MR. KOVAC: Okay --

MR. GOODMAN: There will be an opportunity for you to provide a second comment.

MR. KOVAC: Okay. Thank you.

Correspondence #56-5

MR. GOODMAN: Next, Janet Greenwald.

MALE SPEAKER: Down a little bit?

MS. GREENWALD: No. I think that's okay.

MALE SPEAKER: That's --

MS. GREENWALD: Thank you.

I thank you for this opportunity to speak. I'm Janet Greenwald, and I live in Dixon, New Mexico, which is directly downwind from Los Alamos, and I'm the coordinator of Citizens for

Alternatives to Radioactive Dumping, an ancient and very -- and small statewide nuclear monitoring organization.

I'm speaking today from an environmental justice perspective. The Dixon community is an EJ community. It -- mostly Hispanic. Its median income is \$20,000 below the American average, and the first language of most of the people is -- is not English.

Our community was contaminated by the Cerro Grande fire. When you read the LANL report about it, you will see that LANL disagrees. But their report was flawed.

For one thing, they compared downwind and upwind communities, not recognizing that the wind went south during the fire. So for instance, the Cochiti community was considered an upwind community when it was also a downwind community, so their controls are skewed.

After the Cerro Grande fire, the New Mexico Environment Department visited us and told us there was cesium in our broccoli, cobalt in our plums. It was below regulatory concern, mostly because regulations are based on urban eating habits, not on rural eating habits like ours.

There is a community above Ozucko (phonetic) that is also downwind from Los Alamos and the exact elevation of Los Alamos, and their cancer ran rampant after the Cerro Grande fire.

[Comment 56-5-1][Response 5.5] So now, are we endangered from this project? I believe we are because Los Alamos has a terrible safety record. Last time, they tried to make -- pits, for instance -- they had over 60 safety infractions.

Robert Alvarez has called LANL a potential bottleneck because LANL is proposing to do two very delicate operations. One is the production of plutonium pits, and the other is the oxidation of pits.

MR. GOODMAN: And that's -- that's three minutes, ma'am.

MS. GREENWALD: Pardon?

MR. GOODMAN: Your time is up for now.

MS. GREENWALD: Mine is up. Okay. Thank you.

MR. GOODMAN: But yes, we will have an opportunity to bring people back up if you would like to finish.

Next up -- and I apologize. I can't read the last name. It's Laura W-o --

LAURA: So I thought that --

MR. GOODMAN: -- and then I lose it from there.

LAURA: So I thought that was the attendance list.

MR. GOODMAN: Ah, okay.

LAURA: Sorry.

MR. GOODMAN: Well, don't -- and thank you, Laura.

Correspondence

Do we have any sign-ups in the back of the room? Has anybody signed up recently? Okay. I see a shaking of head.

Okay. So with that, first, I will offer up the opportunity from anybody that is not doing a first comment but hasn't signed up but would like to make a comment. You are welcome to do so now if you come up to the mic.

Okay. And seeing none of those, and seeing that I've cut off Mr. Kovac and Ms. Greenwald, if you would like to conclude, we'd be happy to have you back.

Correspondence #56-6

MR. KOVAC: Yeah.

MR. GOODMAN: I won't even time you this time. So --

MR. KOVAC: Thank you. Thank you.

[Comment 56-6-1][Response 17.5] I was talking about probabilistic seismic hazard analysis, and I'm going to call it a PSHA, and Los Alamos last completed one, as far as I know, back in 2007 or 2009. And DOE has a requirement that those be updated every 10 years, and it's been, you know, 12 or 13 years since then.

But the -- but the important point is that the laboratory and NNSA are moving forward without the most current seismic hazard analysis that they can have. And as a matter of fact, in the -- in the draft EIS, they give an example of when they're using the USGS numbers, current numbers, they get a ground motion of -- a ground -- ground acceleration between 0.2 and 0.3. But the PSA -- PSHA from 2009 showed 0.4 and 0.5 gran, respectively.

So anyway, there -- there is a difference. And the laboratory is using USGS updated numbers, and they should be using probabilistic seismic hazard numbers.

And as a matter of fact, I found an old comment in the draft supplemental analysis of the 2008 sitewide environmental impact statement for the continued use of -- continued operation of Los Alamos laboratory for plutonium operations. This is the SA-6 supplemental analysis.

But anyway, that says, "Although data from U.S. national seismic hazard maps are used in development of PSHAs, the USGS maps are not a substitute for a PSHA." And these are NNSA's own words. So we need to have that updated probabilistic seismic hazard analysis before we head on any further.

Thank you.

Correspondence #56-7

MR. GOODMAN: Thank you.

Ms. Greenwald, would you like to make another comment?

MS. GREENWALD: So traditionally and up until present, Los Alamos stores its waste above ground and outside. So when the Cerro Grande fire happened, it went over many acres, and that was waste burnt. And that condition is still present today at Los Alamos. It hasn't changed.

There are -- are some waste that are inside tents. But basically, everything is outside, sometimes scattered on the ground.

That is also the condition at Rocky Flats. And many of the same problems that we experience with Rocky Flats we experience with Los Alamos.

I spent the day with a defense nuclear facility safety board recently in Santa Fe. And they had some recommendations for Los Alamos before they began accelerating or actually beginning to make pits. They haven't done that for many years here.

[Comment 56-7-1][Response 5.5] But those safety measures that the safety board suggested were rejected by Los Alamos. And when I reviewed the EIS for surplus plutonium, I saw that there was no mention of adding these safety features.

So the safety board suggested that all the HEPA filtration systems at Los Alamos that would be involved at P-4 and TA-55 where surplus plutonium will be oxidized, that those be replaced. But Los Alamos declined. And then they -- they wanted the safety system installed in 1978 completely replaced. And again, Los Alamos declined.

So why is that? It's because safety takes a second, third, or fourth seat while making these production deadlines. That is what is at everybody's top of the list. And Washington is at fault there, too, because they continue to fine.

Fines continue to be low for safety infractions, and the rewards for meeting deadlines remain high. So what does that do for us who live downwind? That puts us at great risk.

[Comment 56-7-2][Response 5.5] Oxidized plutonium is the most pyrorific (sic) form of plutonium. Plutonium -- pyrorific means that plutonium catches on fire without an ignition source. And of all the forms of plutonium that catch on fire most easily, oxidized plutonium is at the top of the list.

One thing that the safety board also suggested was that all of the glove boxes at P-4 be replaced. But again, LANL declined. I can't tell by reading the surplus plutonium EIS whether they will be using old glove boxes or new glove boxes. It's unclear to me.

[Comment 56-7-3][Response 15.3] In -- in the EIS on surplus plutonium, the cancer deaths in the United States as a whole are compared with the cancer deaths in Rio Arriba County, where Dixon is located, and also the cancer deaths at Los Alamos. So this is a deceptive comparison because Los Alamos has the highest incidence of cancer in the state, but it does not have the highest death count because of the excellent medical establishment here in Los Alamos. It is, after all, one of the wealthiest counties in the United States. But of course, the downwind communities do not enjoy that kind of medical security.

So also, they picture the Rio Arriba cancer rates as being low compared to the U.S., in general. Well, Rio Arriba is an enormous county, and much Rio Arriba is not affected by downwind incidents from Los Alamos.

The actual communities that are affected have to be looked at -- the cancer rates and, also, the rates of nerve problems. **[Comment 56-7-4][Response 27.3]** I know from working

Correspondence

with the workers at Rocky Flats that nerve problems were as common as cancer. And now in my community, I'm starting to see those problems.

A person that's close to me that was born and raised in Dixon has severe nerve problems. And her doctor says that she is carrying a body burden of cesium. Now, I ask you: Where else would she get that body burden if not from Los Alamos? I can't figure it out. I've looked to see if there's another possible source around us, and I can't find it.

[Comment 56-7-5][Response 22.2] So my point here is that environmental justice -- I mean, especially in the Biden administration, who is supposed to be more enlightened on that subject and to give it more credence -- is not being served. The downwind communities from Los Alamos need to be examined -- the soil, the -- the products, the people, their health.

[Comment 56-7-6][Response 27.3] How else are we going to know whether they should take on the burden of more risky operations? Is it always the deadline that's going to determine our lives, whether we are sick or well, whether our children grow up healthy or not?

At some point, shouldn't safety come first? Aren't we evolved enough so that safety can come before a deadline, before any deadline? Someone has to stand up for that. If it isn't Congress, then it has to be someone in NNSA or someone in DOE. Otherwise, our future looks very grim.

Thank you again for this opportunity to speak. I'm trying to speak for people who don't really have much of a voice. **[Comment 56-7-7][Response 9.3]** I see a lot of Spanish translation here. But I know in 2008, when the EIS came out on making more plutonium pits at Los Alamos, there were no translations.

[Comment 56-7-8][Response 9.3] So how many of the people in my community know about what's happening at Los Alamos, that there are going to be these two dangerous projects, acceleration of pit production plus oxidation of plutonium planned for Los Alamos without a new HEPA filter system, without a new safety system, without all new glove boxes? How many people know that? I would say very few.

Thank you.

Correspondence #56-8

MR. GOODMAN: Thank you.

Okay. Looking at Becky in the back, is anybody else signed up? Okay. Has anybody been inspired to give a public comment sitting in here right now?

Yes?

ANONYMOUS SPEAKER 1: Hi. I'm going to just remain anonymous.

But I wanted to say thank you, Janet, for such a heartfelt presentation. I do live in Los Alamos, and I'm in complete agreement with all of the previous speakers.

(Microphone adjusted.)

ANONYMOUS SPEAKER 1: Oh, sorry.

FEMALE SPEAKER: It has to be really close to your mouth.

ANONYMOUS SPEAKER 1: I'm sorry for everything that you've just spoken about. Lives, lands, and aquifer do need to be protected.

[Comment 56-8-1][Response 9.3] I'm in agreement that a public hearing does need to be done in Santa Fe. This is not a good representation.

[Comment 56-8-2][Response 5.5] I was a LANL employee. I no longer am. They do have a terrible safety record. I was not impressed with working for them at all.

[Comment 56-8-3][Response 22.2] Environmental justice is not being served. We do need to protect the soil -- it's one of our most important things we have -- and people and health.

And like I said, I didn't prepare for this. I didn't know it was happening. But I just want to say that everyone who spoke before me, I'm in complete agreement.

And thank you for such a heartfelt presentation. And I'll pray for your people.

Correspondence #56-9

MR. GOODMAN: Thank you.

Would anybody else like to make a comment?

Yes?

MALE SPEAKER: That's high enough?

MR. COGHLAN: Yeah, that's great.

MALE SPEAKER: Okay. All right. Oh, that's the --

MR. COGHLAN: All right. Thank you.

I wanted to expand upon the advantages of the mobilization a little bit more. Again, I'm Jay Coghlan with Nuke Watch New Mexico.

Before I do, I'd like to encourage more people to speak up. I personally get tired of hearing the same old people, including myself, all the time. So you know, I -- I want to hear citizens talk about this.

[Comment 56-9-1][Response 7.3] But again, on the advantages of immobilization, again, it's a proven technology. It was done at the defense waste treatment facility at the Savannah River site. But as I stated, in 2002, DOE cancelled, you know, that leg of the two-track approach, went with MOX, which again was a disaster, led to nowhere.

So immobilization at Pantex, again, that's where the pits are, some 20,000 pits. So it should

Correspondence

be done there, and it should be done right. The reason to do it at Pantex -- again, the pits are there, and you eliminate these -- at least two of the three trips across the State of New Mexico and, generally, back and forth across the country if you do immobilization at Pantex.

The other advantages of it -- I'm not a plutonium metallurgist. But -- she laughs. That's obvious. But it's a very interesting element. I'm kind of tempted to take it up. But my understanding is that plutonium oxide is, more or less, the most dangerous -- in -- in a powered form, more or less, the most dangerous form of plutonium. So if you simply did immobilization at Pantex, you eliminate the need for rendering the plutonium into oxide. And again, you would mix it with high-level waste in order to create a proliferation barrier so it couldn't be reused in nuclear weapons.

[Comment 56-9-2][Response 27.5] Now, you know, I'm a bit of a student of the plutonium facility here, PF-4. As you all know, expanded pit production is supposed to happen there. And as a corollary to that, pit production at the -- redundant pit production at the Savannah River site is currently not going well. It was supposed to begin in 2030. Now it's looking more like 2036, if it ever starts. And the cost of repurposing the MOX facility to pit production has climbed to around \$16 billion, and that doesn't even include the sunk MOX cost.

But my point here is there will probably be more pressure on Los Alamos to produce more than 30 pits per year here at PF-4. A couple of people have remarked on the checkered safety history just to have increased pressure, increased production rate at PF-4 is not going to help.

[Comment 56-9-3][Response 24.2] And it's known that, you know, the -- the working floor space of PF-4 is actually pretty small. And according to the 2008 sitewide EIS for Los Alamos, it was some 2.5 metric tons of plutonium, or up to, that was going to be rendered into plutonium oxide each year. So it's not clear to me how both this processing into oxide and expanded pit production is going to take place in a facility that was built in the mid-1970s as a research facility and not a production facility. So all of that is questionable.

[Comment 56-9-4][Response 7.3] And I'm saying go to immobilization, in part, to relieve pressure on PF-4, not that I'm advocating expanded pit production. But there's the safety matter.

Then I'll close with one final general area. If you went with immobilization, I don't know where that product would go. Again, I'm arguing that it would have high-level waste mixed into it. So actually, it couldn't go to WIPP, which is kind of my point. It would relieve all of that pressure upon the Waste Isolation Pilot Plant, which the National Academy of Scientists, you know, has clearly stated in a lengthy report. WIPP is already over-subscribed.

[Comment 56-9-5][Response 8.4] The other point I would point to -- redundant there -- you know, by 2038, there are going to be more transuranic or plutonium waste disposed of at WIPP from expanded pit production -- that is to say nuclear weapons production -- than from cleanup. And I think public attitudes here at large in the State of New Mexico towards WIPP is going to change some as a result.

[Comment 56-9-6][Response 8.2] But perhaps that will -- is a bit too abstract. I would point to the current license permit renewal process that's happening now with the New

Mexico environment department. And you know, first of all, DOE is not going to get the indefinite extension in time that it wants of -- of WIPP. It's going to be a 10-day -- a 10-year, rather, renewal every decade, which is typical of that kind of a permit.

But basically, DOE is planning on WIPP being open until 2050. And there's even documents saying until 2080. And I'm telling DOE you better not bet on that. I personally don't think WIPP's going to be open that long. And if it's not, you know, it's going to screw up your pit production; it's going to screw up your plutonium disposition.

[Comment 56-9-7][Response 7.3] So for all that -- all those reasons, you know, the present draft EIS completely fails to consider in any serious way the immobilization method. I'm -- I'm going to say you ought to reissue a new draft, get the mobilization into it before you proceed with the final environmental impact statement.

So anyway, just to repeat, come on, folks. More folks get up and talk about it. Don't -- don't be shy. I used to be incredibly shy. I couldn't speak in public. But it comes with a -- and, arguably, I still can't. But come on. Get up and talk.

Correspondence #56-10

MS. STOFFER: I will. I didn't --

(Speaking simultaneously.)

MS. STOFFER: -- but you inspired me.

MR. GOODMAN: Absolutely.

MS. STOFFER: So I just moved to New Mexico a year ago, so I'm (inaudible) through a fire hose training -- oh.

MALE SPEAKER: Let me move this down.

MS. STOFFER: So I'm a resident of New Mexico, and I've only lived here a year. So --

MR. GOODMAN: Would you mind giving your name?

MS. STOFFER: Oh. Mary Stoffer, and I'm a resident of Santa Fe County, and my neighborhood is on the transport route.

Oops. Can I just hold this?

MR. GOODMAN: Yes.

S. STOFFER: Okay. It's on the transport route --

FEMALE SPEAKER: Put it close to your mouth.

MS. STOFFER: Oh, okay. Thank you. -- that the plutonium would be on its journey through.

So you know, I agree so much with what you're saying. I mean, I have -- oh, and I should

Correspondence

probably tell you that I'm retired, but I do have a background in environmental consulting. I was a hydrogeologist and project manager for mostly soil and groundwater remediation projects. So I have read NEPA documents and, you know, permits and those sorts of things, but I'm new to this issue.

[Comment 56-10-1][Response 7.4] But you know, one of the things that really disappointed me was there was only one alternative in this EIS, and that's to dilute and dispose, in addition to the no action alternative. And that's a pretty weak alternative because, like, **[Comment 56-10-2][Response 4.2]** even RCRA does not allow you to dilute a contaminant to allow it to be disposed of in a facility about, you know, certain criteria.

So that same -- I'm probably not explaining this very well. But that same logic should be applied to nuclear waste. I mean, you should not be able to dilute it to put it into WIPP because, you know, you do have to dilute it to put it into WIPP because the -- what's the act? It's the -- help me out -- the act that --

(Speaking simultaneously.)

MS. STOFFER: Oh, the Land -- the Land Withdrawal Act does not allow it to have above certain levels. So you do have to dilute it to be able to put it into WIPP.

So I know that we're saying that, you know, we're -- we're making it, you know, less likely to be proliferated, you know, the nuclear waste. But you know, also, it's being diluted to allow it to go into WIPP.

[Comment 56-10-3][Response 7.4] So there should really be another alternative, an innovative alternative that is cost-effective for taxpayers. And I like the immobilization option, too. And actually, I was a student many, many years ago at University South Carolina. I was on a field trip at Savannah River plant, and they were working on that technology. And for the life of me, I -- I do not understand how, after decades -- and it was a long time ago that I was a student -- you know, we still haven't come up with some innovative and cost-effective technologies. So it's -- it's a little bit of a cop-out to just say dilute and dispose.

[Comment 56-10-4][Response 4.2] And you know, like I said, RCRA does not even allow that. For example, if you have soil that's contaminated with hazardous waste, you are not allowed to dilute it to make it eligible for disposal in hazard waste landfill. So if we have that kind of rule for hazardous waste, we should definitely have that kind of rule for nuclear waste, which is much more harmful.

So anyway, I wasn't planning to talk tonight. I just wanted to listen and learn. And I am making some written comments. But I mean, some really, you know, good comments were made here tonight, and I agree with many of them.

So I thought -- you inspired me to -- you know, to stand up and say something. So hopefully, I'll learn more and have more to say in my -- in my written comments that I'll submit.

Thank you.

Correspondence #56-11

MR. GOODMAN: Thank you.

MS. HANSEN: Thank you. Once again --

MALE SPEAKER: You mind using the audio --

MS. HANSEN: -- Santa Fe County Commissioner Anna Hansen. Okay.

MALE SPEAKER: Just close to that.

MS. HANSEN: Yes, I will.

So my question earlier is -- I have a couple of questions. **[Comment 56-11-1][Response 23.1]** How many shipments will it take? How many times will it go through Santa Fe County? How much plutonium, diluted, fits in one of those containers?

So those are questions that I think we all need to have answers to. **[Comment 56-11-2][Response 5.5]** LANL has a horrible safety record themselves. **[Comment 56-11-3][Response 23.1]** And so the transportation is incredibly scary to my constituents, and they are very worried about that.

So how many trips? How many transportation? How many routes through Santa Fe County will be made? There's really some kind of definite information that I feel like we should be -
- be given.

Thank you.

Correspondence #56-12

MR. GOODMAN: Thank you. Okay. Has anybody else been inspired by Mr. Coghlan or others that -- to make a comment?

MALE SPEAKER: Do you want it in the holder or --

ANONYMOUS SPEAKER 2: I'll -- I'll hold it.

MALE SPEAKER: Okay. Because it --

ANONYMOUS SPEAKER 2: I'm going to --

MALE SPEAKER: -- may fall out.

ANONYMOUS SPEAKER 2: -- remain anonymous, too.

So this is, like, new to me as well, but I do work in the environmental natural resources field for tribes in Pueblo, and I am an indigenous woman myself.

And I look at this issue, I mean, and I view the worst-case scenario. **[Comment 56-12-1][Response 18.1]** What is the worst- case scenario with not only the transportation, but the storage disposal, even the packaging of plutonium? And really, this, you know, blows my mind to really think that we have to worry about this.

Correspondence

[Comment 56-12-2][Response 26.1] And I don't just think about myself. But looking at it from an indigenous perspective and my -- the way I view the world, this is not just me, but it's the four-legged, the ones that live in the water, the ones that fly, the air we breathe -- everything and anything of who we are and what we are and where we live within our environments is going to be impacted. It's not just the human population, but it's beyond that.

And when you're a subsistence person or group of people that rely on the land, that rely on the animals, the -- you know, everything and anything for your way of life, you're destroying our integrity. You're destroying our identity. You're destroying who we are and the very land that we exist on. And that goes beyond just me as an indigenous woman, but for everybody, you know.

So again, when I think about this and I'm starting to learn more -- I haven't read all 415 pages of the EIS, you know; I barely got to page, like, 27 today because I had a bunch of other stuff to do -- you know, last minute, decided, okay, well, I'll go ahead and come up and listen and see what this is all about and really gain a better understanding, a perspective of how it's going to impact my communities, the Pueblo communities, the tribal communities, you know, and beyond that because we are an Indian community.

We've experienced colonization, genocide to the hundred-millionth degree, and we still experience today. My community in Hopi where a coal company -- you know, Peabody coal company, you know, used the extensive amount of groundwater to transport coal to Mohave Generating Station. Now we have arsenic in our wells. And that treatment of arsenic is very expensive. And yet we have to apply for grants after grants after grants to receive federal funding in order to mitigate situations and problems and occurrence that were not created by us, you know.

So again, when it comes to a lot of this stuff, you know, you would think that people creating this type of hazardous waste really would understand the endpoint of it. I mean, look at Yucca Mountain. Look at all of these things that are being created, and we don't know to a degree of what's going on.

Climatic changes are happening, which are going to impact us in many ways that are unbeknownst to us. **[Comment 56-12-3][Response 8.3]** And what happens with this WIPP facility if something should detrimentally impact it in which it's going to release and affect all of us and beyond our control?

So those are just things that I think about -- that I thought about while sitting here listening to not only the presentation, skimming through what I skimmed through today as far as the documents that were provided. But it -- as it -- it -- it scares the shit out of me. That's all I'm going to say.

Thank you.

Correspondence #56-13

MR. GOODMAN: Thank you.

Would anybody else like to make a comment?

Yes?

ANONYMOUS SPEAKER 1: Mine's really quick.

[Comment 56-13-1][Response 27.3] For those of you who don't know, there was a release at WIPP in 2- -- I'm not sure, but it -- maybe 10 years ago, and that was Los Alamos National Lab's fault, FYI.

MR. GOODMAN: Thank you.

All right. Anybody else?

(No audible response).

MR. GOODMAN: Okay. I will begin closing remarks. But if you are inspired today to comment, please do so. We will work on a PowerPoint presentation.

So thank you to everybody that made one or more comments tonight, really appreciate that and really appreciate those in the local community that came to the meeting tonight, and certainly appreciate those from outside of Los Alamos that came up here for the meeting tonight.

If you chose not to make a comment here tonight, you have another -- a number of other options for doing so -- comment forms at the back of the room, email, phone, or mail.

Again, all of this information is also available at the NNSA NEPA Reading Room. There is the link to it, and the easiest way is just to Google NNSA NEPA Reading Room.

Again, please note that the draft comment period has been extended -- or will soon be extended to March 16th.

And with that, I will thank everybody for your time and interest and respect. And I will turn things over to (inaudible).
(WHEREUPON, the hearing was concluded.)

Correspondence #57-1

NATIONAL NUCLEAR SECURITY ADMINISTRATION
(SPDP) (EIS)
PUBLIC MEETING
FINAL
HELD ON
THURSDAY, JANUARY 19, 2023
5:30 P.M.
NORTH AUGUSTA MUNICIPAL CENTER
100 GEORGIA AVENUE
NORTH AUGUSTA, SOUTH CAROLINA 29841

MR. GOODMAN: All right. Thank you very much to both Virginia and Maxcine for that. I know that was a lot of information in a very short amount of time.

Correspondence

Now we are going to transition over to the public comment portion of the meeting. So to start, we will request that comments last no longer than three minutes, and if my gremlins in my computer are not there, we will be tracking that on the screen.

As your time begins to run short, I will let you know, and when your time expires, I will respectfully ask you to conclude. We do appreciate you being respectful of the project staff and your fellow members of the public.

If time permits tonight, when everybody has had the opportunity to provide a first comment, you may have the opportunity to provide a second comment.

And before providing oral comments, you are requested to state your name and your affiliation if you are not representing yourself, and if your name is difficult to spell, provide spelling of your name for the record. You are allowed to make your comment anonymously if you so prefer.

And with that, why don't we go ahead and get started with the first commenter. We can start with elected officials, but I don't see any so the first commenter will be Donald Moniak.

MR. MONIAK: And my -- yes, hello. My -- is that good? My name is Don Moniak, M-o-n-i-a-k. I live in Aiken County.

And this is quite remarkable because the last meeting I was at was 2002, and elected officials took up probably a half an hour of time all saying the same thing over and over. At the end of it, I recommended that they all stand up together in a display of unity and save the time for the rest of us who wanted to ask questions because this is no time for platitudes.

[Comment 57-1-1][Response 7.4] Twenty-five years ago when this all started, there was quite a few people who thought plutonium should be treated as a waste, and then there were people who argued it should be treated as an asset and used as fuel; so today we are treating it as a waste, finally.

My question is why wasn't it treated as a waste back then? If the dilute and dispose process is mature and it was used at Rocky Flats around 2000, 2002 to take care of about six tons, why wasn't it considered back then?

[Comment 57-1-2][Response 5.5] Second question is why does the preferred alternative appear to be the most risky alternative and the most expensive?

Moving pits from Pantex to Los Alamos, taking them apart in Los Alamos, converting the plutonium inside to an oxide, separating out all the other parts, shipping the oxide across the country which is the most hazardous form of plutonium dispersal-wise, taking care of it at Savannah River Site and then shipping it all the way back to WIPP.

[Comment 57-1-3][Response 5.3] From a -- from a strictly national perspective and a cost perspective, why aren't you looking at either just shipping the pits -- you are looking at it but it's a subalternative -- shipping the pits from Pantex to Savannah River Site or just doing it all in that little triangle between Pantex, LANL and WIPP?

[Comment 57-1-4][Response 15.8] One thing I've noticed in the EIS is it -- it does really not define what the hazards really are in all of this. I did a search for americium, for example, and it only popped up six times in Volume 2 and about three times in Volume 3,

and it never really explained why americium is the biggest concern in terms of worker exposure at this point.

And that's because of plutonium aging and americium buildup; so you really need to improve on how you are explaining what the hazards are in this up front right away.

[Comment 57-1-5][Response 5.1] And the same thing with complications. Not all pits are alike. There's like 48 different pit types, of which is about eight types that have bonded pits that can't be mechanically separated, have to be chemically taken apart, and that's in the record.

[Comment 57-1-6][Response 24.1] Another issue is finish what you have now at Savannah River Site. There's 12 tons, 13 tons out there now. You want to bring in three times that amount when you are only doing one-fifth of a ton per year at the present time.

MR. GOODMAN: Sir, that's your three minutes.

MR. MONIAK: I see that. Thank you.

Correspondence #57-2

MS. PRESTON: Okay. My name is Priscilla Preston, and thank you for giving me this opportunity to express my concerns about the draft environmental impact statement for the surplus plutonium disposition program.

[Comment 57-2-1][Response 4.2] My main concern is that the plan to convert plutonium waste into powdered form so that it can then be down blended at SRS imposes too much risk for too many people.

[Comment 57-2-2][Response 9.7] Since this project involves transporting dangerous radiological waste through communities in at least 10 states, a programmatic environmental impact statement must be done so the effects on all the communities involved will be understood.

[Comment 57-2-3][Response 9.3] This is a complex project which puts the public at risk. The public has not been informed nor has it been given an opportunity to state whether or not it accepts such a risk, although I do appreciate this presentation tonight.

[Comment 57-2-4][Response 17.12] Sandia National Labs reports that this form of powdered plutonium, if accidentally released, would be almost impossible to clean up. Farm and ranchland would need to have the topsoil removed, and buildings like homes, schools, and businesses would need to be abandoned.

[Comment 57-2-5][Response 7.5] Plutonium takes 480,000 years to completely decay. Leaving the plutonium in place provides the least risk to the least number of people at this time.

[Comment 57-2-6][Response 24.2] If plutonium storage cans at SRS are facing pitting or corrosion, the public deserves to know the plans to protect those cans from leakage. It's my understanding after talking with someone tonight that there are currently no plans.

Correspondence

No additional shipments should be sent to SRS until the pitted or corroded cans can be remediated in some way. The most serious concern is that there is no good solution for disposal of plutonium waste, and DOE is considering making more plutonium pits.

[Comment 57-2-7][Response 23.3] As I've stated, transporting plutonium in a powdered form poses an unacceptable risk to countless people in 10 states; **[Comment 57-2-8][Response 4.4]** therefore, I oppose the dilute and dispose process.

[Comment 57-2-9][Response 27.5] The inability to dispose of plutonium without incurring unacceptable risk is one of many reasons why DOE should not consider building additional plutonium pits at any location, now or ever. Thank you.

Correspondence #57-3

MR. GOODMAN: Thank you. Next up we have Glenn Carroll.

MS. CARROLL: Thank you. My name is Glenn Carroll. I'm coordinator of Nuclear Watch South in Atlanta, Georgia. We've been doing this a really long time. Nuclear Watch South, we were Georgians against nuclear energy in 2000. We intervened at the Nuclear Regulatory Commission about the MOX factory.

[Comment 57-3-1][Response 7.3] We had a dual track. We had the MOX and plutonium immobilization. We were advocating the plutonium immobilization to utilize the tank waste, which has been a huge problem at Savannah River Site, and we were saddened when that project was abandoned and we're confused that it's not mentioned now.

It was a good alternative. It would have utilized the tank waste. Now we are on a program to empty the tanks, and we squandered decades that we could have developed the plutonium immobilization which would have been -- it was implied it would be ready to go in 2007.

We have accelerated processing tank waste at Savannah River Site, but we're still taking more than two years to process a tank, and I believe there will be tank waste that can be utilized in immobilizing these plutonium wastes, especially the ones that are already at Savannah River Site.

[Comment 57-3-2][Response 27.5] The conversion, the proposal to convert the MOX factory to a pit factory is offensive. We were treating plutonium as waste, and now the same agency that's coming to us about plutonium disposition is also proposing to manufacture new pits at Savannah River Site to which we object, and we think it is a wicked bait and switch to have spent years and billions to develop a MOX factory and then abandon it to build new nuclear weapons.

Nuclear weapons have been outlawed by the United Nations, and I want to say we have such a dilemma. This dilemma that we are here in this room tonight to put our heads to, work that really needs to be done, worthy work, this problem was handed to us by a generation that's not with us now.

We are holding a bag. We are spending \$84,000 a minute pursuing nuclear weapons. **[Comment 57-3-3][Response 2.3]** There's plenty of work to be done to clean up the DOE facility, the plutonium, the wastes, the contaminated buildings and the contaminated areas.

So that is our wish.

I've been doing this a really, really long time, and I brought my antique banner with me, and my friend offered to hold it with me to take a picture. The.

UNIDENTIFIED FEMALE: Letters peeling off after decades, right?

MS. CARROLL: Right. Hopefully the plutonium's holding up better than the vinyl lettering. Let's show our hosts.

UNIDENTIFIED FEMALE: Thank you.

Correspondence #57-4

MR. GOODMAN: Thank you. Great, thank you very much. Next up we have Betsy Rivard.

MS. RIVARD: Hello, I am Betsy Rivard, I'm with Nuclear Watch South, and I, too, was here, I think 2002 when Don Moniak was here, and I was very much for the immobilization choice, but that seems to have been dropped from everything.

[Comment 57-4-1][Response 23.3] And I'm you in fear of plutonium oxide traveling all over the country back and forth and here and there , and I just think it's a very dangerous form of plutonium, and I just think, you know, I guess putting it inside of one container into the other into the other into the other, I don't know, is there still no radiation leaking out.

What happens when there's, you know, calamitous wreck of the commercial truck that's pulling it? What if the driver has some kind of mental breakdown? I just think it sounds like a crazy scheme.

[Comment 57-4-2][Response 9.4] I am also for extending the comment period because a 600-page report is -- your proposition is not readable in such a short time. I'm not going to be able to read all of it, that's for sure, and I just second what Glenn Carroll has just said . Thank you very much.

Correspondence #57-5

MR. GOODMAN: Thank you. Next we have Charles Utley.

MR. UTLEY: Good afternoon. Charles Utley, and I'm with the Blue Ridge Environmental Defense League, the Neighborhood Alliance, Shell Bluff Concerned Citizens, and any other community that's interested in environmental justice and environmental impact.

[Comment 57-5-1][Response 24.1] I noticed when I looked at your thing, you said you gave a lot of consideration for environmental impact, and I was interested in did you look at the site as it is now? Because what you are doing is continuing to add to it instead of cleaning it up.

And when I look at what you are headed to do, my mind is as for one of your representatives went to Mexico, went to other neighborhoods because are they going to be empowered with double danger coming upon them.

Correspondence

[Comment 57-5-2][Response 23.2] And the other thing was the other week, I don't know if you all remember, but there was a truck hit by a train carrying a half of a bridge, and it was torn apart. And when I see that demo over there, that's the first thing that went to my mind because the driver drove across the railroad track and stopped the train that was on it and just took it apart. Look at it, not maybe two weeks ago.

So there is danger in transporting this also, **[Comment 57-5-3][Response 22.2]** and we don't want to create more injustice through our movement in environment, we want to just solve it. Science has you look at what you are doing and don't create more things that's going to cause contamination to communities who are already being contaminated. Because we received a call to come to Mexico to see how to help them.

So I want you to know that this is a ripple effect, not just here, but we want you to do what's pleasing for the world. And is this going to be pleasing? Think about it and make the choices that everyone can live with and not be worried about because we have little ones that I'm more concerned with.

When I probably started meeting with y'all, my hair was black as yours, but right now, you can't see hardly a black spot on it. But through the will of God, I intend to keep pushing to make sure every community is recognized as being a community that is environmentally safe.

And I want y'all to think about that and thank you for the opportunity to speak with you this afternoon. And make the right decisions in anything you do that involves other people because it's involving you at the same time. Thank you.

Correspondence #57-6

MR. GOODMAN: Thank you. Next we have Will Williams.

MR. WILLIAMS: Good evening, I'm Will Williams. I'm president and CEO of the Western South Carolina Economic Development Partnership, and in a volunteer capacity I also serve on the board of directors for the Savannah River Site Community Reuse Organization where I'm currently chairman of the board of directors.

[Comment 57-6-1][Response 25.2] For the last 70 years, Savannah River Site has been successfully executing the treating mission for the nuclear deterrent in the Department of Defense. The site has a lot of existing nuclear processing infrastructure, decades of safe working around nuclear waste management and processing.

SRS and the National Lab have decades of operations with plutonium and other nuclear material such as gloveboxes, safe remote work, and handling. We're very confident that the employees at Savannah River Site are highly capable of performing this mission in a safe and responsible manner.

There is a world-class safety culture that exists there in their 24/7 operation, and they will implement this project in environmentally responsible manner in accordance with all applicable regulations.

And the SRS is an economic development engine for western South Carolina and the CSRA. The annual budget of over \$3 billion at SRS and that helps purchase hundreds of millions of dollars of goods and services from businesses both locally and within South Carolina and

Georgia.

The employees and the retirees of SRS have had a tremendous impact in the community with volunteerism in our K through 12 schools and two- and four-year institutions. The opportunity for SRS to play an expanded role in the mission has the potential for up to 800 new jobs depending on the alternative selected.

Workforce and education investments needed for this mission will also benefit other regional manufacturers and businesses that our organization continues to try and attract to the region. And Savannah River Site has been very philanthropic in the community and the region, donating a million plus dollars. Thank you.

Correspondence #57-7

MR. GOODMAN: Thank you. Next we have Susan Everett.

MS. EVERETT: Good evening. My name is Susan Everett. Thank you for allowing me to speak today.

As an executive director with the American Red Cross, **[Comment 57-7-1][Response 25.2]** please accept these as my personal comments in support of the NNSA's efforts related to the preparation of an EIS to proceed with its commitment to safely dispose of surplus weapons grade plutonium, which will involve the Savannah River Site.

SRS has been a vital partner with our American Red Cross for many, many years, and the philanthropic support they provide in turn allows us to serve our local communities to help alleviate human suffering in the face of emergencies.

And as you know, SRS employees have helped make the world safer for 70 years, and today, SRS continues to make significant progress on both its national defense missions and environmental cleanup commitments.

SRS has the secure nuclear materials processing infrastructure, talented workforce, and community support to make it uniquely suited to fulfill such an important mission.

I applaud SRS for meeting its downblending targets from the materials covered under the previous EIS, and I have full confidence in the SRS workforce to safely and securely complete this mission. Thank you.

Correspondence #57-8

MR. GOODMAN: Thank you. Next we have James Marra.

DR. MARRA: Good evening. My name's Dr. James Marra, and I'm the executive director of Citizens for Nuclear Technology Awareness located in Aiken, South Carolina.

CNTA is a nonprofit organization consisting of over 400 members. We are an educational and advocacy group promoting the safe and effective use of nuclear technologies as it relates to energy, healthcare, national security, and the environment.

[Comment 57-8-1][Response 5.3] Our organization welcomes the consideration of the Savannah River Site for the surplus plutonium disposition program. We support the base

Correspondence

option for disposition of 34 metric tons of surplus plutonium and consideration of SRS in subalternatives.

The Savannah River Site is ideally suited for the surplus plutonium disposition mission. For over 70 years, SRS has safely and efficiently managed nuclear materials. Starting with DuPont, SRS operations contractors have set the global standard for nuclear safety and security.

SRS has demonstrated the ability to conduct production scale nuclear operations in a safe, secure, and environmental responsible manner. This includes all phases of plutonium processing, material handling, and accountability.

SRS has also been the DOE complex leader in environmental remediation and waste management. No one can argue the successes that SRS has achieved in waste treatment and processing. These environmental cleanup efforts will continue in parallel under the direction of other highly skilled site workers and not be impacted by the surplus plutonium disposition mission.

[Comment 57-8-2][Response 3.2] I do however also highly recommend that the NNSA consider the conclusions and recommendations from the National Academy of Science 2020 report review of the Department of Energy's plan for disposal of surplus plutonium in the Waste Isolation Pilot Plant.

This excellent report identified the need for further assessment and understanding in several areas. A few of these included the capacity at WIPP, the commitment to the anticipated decades long duration of this disposition program, safeguards and securities and classification requirements, and the programmatic details involving the multiple federal and state agencies that will be involved. Thank you very much for your attention.

Correspondence #57-9

MR. GOODMAN: Got it. Sorry, we will make it clear at the next one, hopefully commenting I'm here. Next we have Mindy metes.

MS. METZ: Good evening. My name is Mindy Metz. I am the director of regional workforce programs for the Savannah River Site Community Reuse Organization. I've lived in this community since 1988 and raised my family here. Our organization, the SRS Community Reuse Organization, or SRS CRO is the U.S. Department of Energy's designated community reuse organization for the Savannah River Site.

We are governed by a 22-member board of directors that includes business, government, and academic leaders from Georgia and South Carolina. We are a private, nonprofit organization charged with diversifying the economy of a five-county region, and that region includes Aiken, Allendale, and Barnwell counties in South Carolina, and Richmond and Columbia counties in Georgia.

[Comment 57-9-1][Response 5.3] The SRS CRO is focused on new missions at SRS and ensuring that the site maintains its role as part of this nation's national security structure. We support the SRS as a highly qualified and safe place for the surplus plutonium disposition program as part of NNSA's preferred alternative to use the dilute and dispose strategy for the 34 metric tons of surplus plutonium.

We understand that NNSA has developed four subalternatives for the preferred alternative based on the location of activities. SRS has the infrastructure, the capacity, the safety record, the skilled workforce, and the community support to successfully serve as the all Savannah River Site subalternative. We understand that this approach would use only capabilities at SRS for the disposition pathway prior to shipment to the WIPP facility.

According to NNSA's draft EIS for SPDP, hundreds of new jobs could be needed to support this subalternative, and unlike many communities in our world today, the communities surrounding SRS are poised to support this effort.

The SRS CRO is already working in concert with NNSA, local technical colleges, universities, and historically black colleges and universities to help local citizens develop the skills for the jobs needed to support existing SRS missions, and our community is well positioned to build on this established workforce development capability to support Savannah River Site's role in the SPD program. Thank you.

Correspondence #57-10

MR. GOODMAN: Thank you. Next we have Steve Hensel.

MR. HENSEL: I also signed as a record of attendance.

MR. GOODMAN: No problem. In that event, we have Keith Dyer.

MR. DYER: Attending.

MR. GOODMAN: Same thing? Okay. Next we have Sharon Rogers.

MS. ROGERS: I'm here.

MR. GOODMAN: All right. And you want to speak.

MS. ROGERS: Good evening, thanks for this opportunity. My name is Sharon Rogers, and I'm the president of the United Way of Aiken County. I've lived in Aiken County for over 40 years.

[Comment 57-10-1][Response 25.2] I wish to offer my support of the National Nuclear Security Administration's efforts related to its representation of the environmental impact statement for its surplus plutonium disposition program, which will involve disposition of 34 metric tons of weapons grade plutonium at the Waste Isolation Pilot Plant in new Mexico.

The Savannah River Site has a world-class safety culture and extensive experience in plutonium disposition. There is no site better suited to this mission than SRS. Its workforce is unequalled in attention to detail, safety, effectiveness, and efficiency.

Today SRS continues to make significant progress on both its national defense missions and environmental cleanup commitments. SRS has a secure nuclear materials processing infrastructure, talented workforce, and community support to make it uniquely suited to fulfill such an important mission.

The Savannah River Site has been operating safely in Aiken County for over 70 years. The United Way of Aiken County owes its very existence to SRS.

Correspondence

SRS contractors and employees are active and engaged partners in our community. They are our go-to supporters. They are our largest contributors helping to support 30 partner agencies and 45 critical new programs benefiting vulnerable seniors, children, disabled, underemployed, and people in crisis.

They provide the time, talent, treasure, and testimony needed in our community. This past year, 300 volunteers worked at 19 different sites during our day of caring. These volunteers serve as our board members and our committee members. They help support our schools and provide our community with many resources. They are our partners and can improve lives in our community. We support the NNSA's proposed disposition plan, and we have full confidence in the SRS workforce to safely and securely complete this mission. I'm honored to support SRS. They care about our community and their mission to make the world safer. Thank you so much.

Correspondence #57-11

MR. GOODMAN: Okay, thank you. That is everybody now that I have on the list here. Becky, I don't know if there is anybody that signed up back there? Okay.

Then if anybody that has not yet provided a comment and would like to, if you would like to make a comment, please feel free to come to the microphone now.

MS. JONES: Hello. Hello. My name is Audrey Jones. I want to echo what was said earlier by both Priscilla, built on by Glenn, but I also, **[Comment 57-11-1][Response 9.4]** after digesting and trying to digest everything here, I think extending the public comment period is really, you know, why I want to stand up here today and just give us -- give us more time to digest this.

This is a lot, and it's going to impact, you know, millions of people across state lines; so if nothing else, please consider that. Thank you.

Correspondence #57-12

MR. GOODMAN: Thank you. Anybody else that has not made a comment that would like to? Okay. Anybody that has already given a comment that would like to give a second comment?

MS. CARROLL: I'm Glenn Carroll, coordinator of Nuclear Watch South, and **[Comment 57-12-1][Response 5.3]** I just wanted to say really clearly that repurposing the MOX factory, the unfinished MOX factory, plutonium disposition would be appropriate as it was originally funded and intended to be for the disposal of plutonium. We still have 34 megatons that was supposed to go into MOX.

[Comment 57-12-2][Response 9.4] I want to add our voice to extending the comment period, particularly since the holidays wiped out a good chunk of this two-month period.

[Comment 57-12-3][Response 23.2] And I want to say especially that the EIS must contemplate an accident during transportation of plutonium oxides. It's such a long route and you have to contemplate what is the skill and resources of all the emergency personnel that might be called into play along these long routes that you are envisioning.

[Comment 57-12-4][Response 7.3] I kind of want to raise a question mark that you consider any of the plutonium disposition methods at hand mature technology at this point, and again go to bat for the squandered opportunity of plutonium immobilization using the tank waste at Savannah River Site. Thank you.

Correspondence #57-13

MR. GOODMAN: Thank you. Anybody else that would like to make a comment?

MR. MONIAK: Yes. My name is Don Moniak, M-o-n-i-a-k. **[Comment 57-13-1][Response 24.2]** A statement earlier during your presentation said we can't contaminate our lines that are doing pit work, and I don't expect an answer today, but I would like to hear an answer on the EIS as to whether the plutonium disposition -- plutonium pit disassembly conversion facility is a dual use facility. Probably is and that's why you can't contaminate it because it's also being used to make new pits.

[Comment 57-13-2][Response 6.2] I also want it on the record as saying I personally support the no action alternative for the simple reason that the plutonium that's in the pits right now, and that's pretty much what we're talking about, if you take away that 7.1 tons, all you are left with is pit plutonium, 7.1 tons of metal is already analyzed under another NEPA doc, and there's already a record of decision for that. So we are only talking about the pits, the capsules, whatever they are called, sealed pits, and the plutonium in that is an alloy that is in its most stable form of plutonium that is scientifically known to our knowledge.

I don't have the plutonium handbook. That's six volumes and costs \$5,000. I believe the Department of Energy should donate a copy of that to the Freedom of Information reading room at the USC Aiken and other Freedom of Information reading rooms around the country.

Five thousand dollars is a drop in the bucket for an outfit that's wasted billions pursuing the MOX plant, the plutonium MOX plant and another programs that just didn't work. It should be there for just anybody, even if there's only five or six people, somebody doing a thesis, somebody doing a research paper, Aiken High, should be there. You should have that available because everything in that book was probably paid for, funded by taxpayer money, not by the American Nuclear Society, not by anybody else. Everything in this has been funded at some point at the beginning by federal tax funds.

I'd like to just speak to the Savannah River Site for a second. The way I try to phrase it is Savannah River Site is thousands of people go to work there every day to make sure nothing bad happens and they do a good job of it, but safety is something that needs to be defined. To say they've worked safely for 70 years is just a platitude.

I recall in Amarillo, Texas one time a gentleman from the nuclear navy background, which surprised me because they are not known for saying things like this, said that the Pantex nuclear weapons plant had never had a serious accident. And a woman asked him, What do you mean never had a serious accident? You had the high explosives accident in 1977 that killed three people, obliterated them. And he said, No, no. What I meant is we never had an accidental nuclear detonation.

So that was his definition of safe, which is a pretty bad definition of safety to say, oh, we've

Correspondence

been safe because we haven't had a one kiloton or a 10 kiloton fizzle that destroyed half of the Texas panhandle or the Amarillo metropolitan area. **[Comment 57-13-3][Response 5.1]** So please define safety when you are doing this. What do you consider to be safe?

[Comment 57-13-4][Response 27.1] The other part of Savannah River Site I'd like to address is the philanthropy aspect. There's a telescope observatory at USC Aiken that was put there by DuPont. I don't know all the history of it, but I believe it was put there by DuPont because they believed in science.

Most of the philanthropy that goes on today, we don't know how much is required by the contract, but every contractor in Savannah River Site has a clause in their contract that says they are required to participate in charitable organizations, boards, education.

If they don't participate in that, they may not get the contract. It's subsection J of the contract so that ought to be considered. This stuff about Savannah River Site being so charitable, it's the federal government funding it and requiring them to be charitable.

I'd like to see how charitable it would be -- they probably would be charitable, but I'd like to see how charitable it would all be if it was not mandated by contract, which taints the charity of it all. Thank you.

Correspondence #57-14

MR. GOODMAN: Thank you. Anybody else like to make a comment?

MS. RIVARD: **[Comment 57-14-1][Response 5.1]** I had wondered how, first of all, how many truckloads are involved in -- to get rid of all of this plutonium out of Savannah River Site, either the pit plutonium or the nonpit plutonium. And who is it that's weighing this plutonium.

I found, like, a 13-year-old article from the New York Times by Robert Alvarez who said that he figured out that there was actually three times as much plutonium at Hanford as they had originally thought.

So I just wonder who weighs it, where do we get these figures and, you know, how many truckloads are we talking about? That's all. Thank you.

MR. GOODMAN: Thanks. Just to confirm, you are Betsy Rivard; is that fair?

MS. RIVARD: Yes, thank you.

Correspondence #57-15

MR. GOODMAN: Yes.

DR. MARRA: I'm James Marra, Citizens for Nuclear Technology Awareness, and I guess as a former site employer or employee and a citizen of the community, I'll take kind of an exception by saying that the site is not really being philanthropic on their own. I would contend that the millions of dollars that come in every year to the United Way are from -- mainly from employee contributions, and speaking from experience, the United Way

campaigns and other philanthropic activities at the site are employee driven and actually come from the heart of the employees working there. So I'd like to make that clarification.

MR. GOODMAN: Thank you. Would anybody else like to make a comment? We have some time so if you do, please feel free. Okay. Well, I'll remain for a little bit here, but if you change your mind, please feel free to raise your hand.

First off, I really want to thank all of you for the time and energy it takes to come out to a meeting in the evenings, taking time away from yourselves and your families.

Really appreciate your time and energy and your expertise and very much appreciate the comments that you made on the EIS, which is incredibly important as we move forward with developing the EIS so thank you very much for that.

Again, as you can see on the screen, if you did not provide your comment tonight or if you did provide a comment and would like to provide a comment in writing or by phone, you may do so using any the one of the ideas that's there on the screen, and I would also encourage you to take some of the reading materials that are at the back of the room, mostly so we don't have to take them with us.

And with that, see if there are any other hands or anybody else that would like to make a comment? Seeing none, I'll turn things back over to Virginia and Maxcine.

Correspondence #58-1

NATIONAL NUCLEAR SECURITY
ADMINISTRATION PUBLIC HEARING
(SPDP) (EIS)
TRANSCRIPT OF PUBLIC COMMENTS
FINAL
HELD VIA ZOOM ON
MONDAY, JANUARY 30, 2023
MODERATOR
DAVE GOODMAN

MR. GOODMAN: I don't see any public officials, so we will go ahead and start with the first member of the public, who is Cynthia Weehler.

Cynthia, you should be able to unmute yourself and make your comment.

CYNTHIA WEEHLER: Hello. Can you hear me?

MR. GOODMAN: Yes, we can.

CYNTHIA WEEHLER: Okay. I'll spell my name at the end because I -- I want to get my statement in. I'm Cynthia Weehler. I'm co-chair of the 285 Alliance, which is a group that monitors issues for the communities along Highway 285, the designated route for radioactive waste in New Mexico. **[Comment 58-1-1][Response 26.2]** This is a risky project, and that

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worries those of us on the route.

Estimating risk for complex projects is incredibly difficult. NASA calculated that the risk of 1 space shuttle crashing was 1 in 100,000. NASA's assumption was made with the overconfidence that good engineering would make the shuttle program very safe. Then the Columbia and Challenger space shuttles exploded, showing the risk was actually 1 in 66. NNSA is demonstrating the same misplaced overconfidence.

Worse, this is not astronauts taking on a risk that they chose. **[Comment 58-1-2][Response 9.3]** It's civilians who have no idea that they're test subjects being put at risk. Astoundingly, the public in 10 states hasn't even been told it has been chosen for this risk. How dare you put people at risk without telling them? You're choosing to enter their families, their property values, their businesses, and investments in a lottery they don't even know about.

[Comment 58-1-3][Response 23.2] Many communities in New Mexico, mine among them, will see shipments of the same packages of plutonium in different forms passing our homes twice. In neither instance will it be transported in TRUPACTs, and the shipments will -- will last for decades and decades. This is an accident waiting to happen. **[Comment 58-1-4][Response 9.7]** This mission change demands a full programmatic environmental impact statement.

A sign of NNSA's misplaced overconfidence is its refusal to even consider the need for a PEIS for a plan that covers 10 states, 3 facilities, and introduces complexities and unknowns that have never been tested. If transporting tons of nuclear weapons waste for long distances and times isn't a mission that triggers the need for a full review, what kind of mission would?

The National Academies of Sciences' surplus plutonium disposition report in recommendation 5-5 instructs that DOE implement a new PEIS because it redefines the character of WIPP. Let me repeat that. The surplus plutonium mission redefines the character of WIPP.

The NAS also advises that a PEIS is needed for public acceptance. By avoiding its due diligence, NNSA's safety and common sense credibility are zero. It takes a long time to rebuild that public trust. You need public trust to accomplish your missions. For God's sake, start acting responsibly. It's C-y-n-t-h-i-a, W-e-e-h-l-e-r.

Correspondence #58-2

MR. GOODMAN: Great. Thank you very much, Cynthia.

Next up, we have Elizabeth Foree.

ELIZABETH FOREE: Can you hear me okay?

MR. GOODMAN: Yes, we can.

ELIZABETH FOREE: I am responding to the slide Surplus Plutonium Disposition. **[Comment 58-2-1][Response 8.1]** This form of plutonium, the powdered oxide, was never agreed to be disposed of in WIPP. **[Comment 58-2-2][Response 23.2]** Shipping is past my house twice for each shipment, and it is putting me, my family, my property, and community at an

unacceptable risk. I bought my property without knowing that DOE and NNSA were planning to change the rules.

[Comment 58-2-3][Response 26.1] These federal agencies are betraying us and the people of New Mexico, and they may never get that trust again. And I would like to comment on the presenters continually saying, "you can." That is not only demeaning as a citizen of the United States of America, but every person here in New Mexico. Thank you very much.

Correspondence #58-3

MR. GOODMAN: Thank you.

Next is Dan Solitz. Dan, are you able to unmute yourself? If you are attempting to unmute yourself, we can't see it on our end or hear you. Okay. We will try to come back to you.

Next, Erica Valentine. Erica, are you able to unmute yourself?

ERICA VALENTINE: Yes.

MR. GOODMAN: Great. We can hear you.

ERICA VALENTINE: Thank you. I just want to say I'm -- this was a shocking thing to find out about, the already existing transportation of waste on 285 and so many other roads in New Mexico. **[Comment 58-3-1][Response 8.1]** New Mexico has already committed to taking a disproportionate amount of nuclear waste for permanent storage for the country at the WIPP facility. WIPP has been plagued with problems from the beginning, and it was never intended to store the more dangerous powdered plutonium ever.

[Comment 58-3-2][Response 8.5] The DOA and the NNSA must do better to address the responsibility for the nation's nuclear waste. Do not just think that it can all go to New Mexico. That is not fair. Do the work to find better, safer, permanent storage in proximity to where the waste is generated. It's just not fair to have New Mexico take it all, and it's so dangerous. The whole idea of shipping it back and forth the country is just -- is just -- it doesn't make any sense. Thank you.

Correspondence #58-4

MR. GOODMAN: Thank you.

Dan Solitz, it looked like you -- Dan, are you able to unmute yourself now?

All right. I guess not. Sorry about that, Dan. We cannot hear you.

Next up would be Joan Brown.

JOAN BROWN: Yes. Good evening. And thank you for being here. **[Comment 58-4-1][Response 26.1]** I have to say that I am just appalled at all of this because my understanding is that New Mexico has already done our part, and we cannot take any additional plutonium. It should not be brought to LANL. This is not the mission of -- of WIPP. Your comments were talked about public -- the public is being heard or needs to be heard.

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Well, I think you need to hear that a number of the public in New Mexico do not want this. I'm a Franciscan Sister. My name is J-o-a-n, B-r-o-w-n. But as a Franciscan Sister, you know, we follow a charism of, "Make me a channel of your peace." And while -- while you're looking at disposal of -- disposal of ever more of this nuclear waste, there's an increasing movement to create more of it.

[Comment 58-4-2][Response 22.2] And this is just -- doesn't make sense. It feels like it's an ongoing colonization. People in this region, in this state, we already consider ourselves a sacrifice zone in many ways. The southeast part of the state and other parts of the state. This is going to be traveling through and stored again in communities that are mostly communities of color. We're still an economically poor state, even though we're taking all of this waste, and we have all of these highly sophisticated procedures as were described, proposed for LANL and at WIPP.

There's huge environmental justice and ethical and moral concerns here. **[Comment 58-4-3][Response 26.1]** We can't just keep producing this and just thinking we can dump it on the people of New Mexico. Not only is it not fair, it is immoral. It is unjust, and it just can't continue. The people here in New Mexico do not want this. The people of the country, if they knew what it was really about, would say no to this.

So we don't want any of this. **[Comment 58-4-4][Response 27.9]** We don't want any more production. We don't want any more warheads that's not for our national security. Our greatest national security problem right now is climate change. This incredible amounts of funding should be put towards addressing climate change and the true health and welfare of our communities everywhere.

[Comment 58-4-5][Response 26.1] So no -- no transportation, no production, no processing, no coming here to New Mexico. **[Comment 58-4-6][Response 9.5]** And I hope truly that you are listening to the public voices. Thank you.

Correspondence #58-5

MR. GOODMAN: Thank you very much.

Next up, we have Marlene Perrotte.

MARLENE PERROTTE: Good evening. My name is Marlene Perrotte, P-e-r-r-o-t-t-e. I'm a Sister of Mercy and have been involved with the concern of nuclear weapons for many, many decades. I have several things I would just like to say.

[Comment 58-5-1][Response 27.6] Number one is WIPP's mission. Right now, we seem to be taking different places -- different states' transuranic waste, and yet we have not removed the transuranic waste at LANL. That should be the primary responsibility of WIPP, that all the transuranic waste deposits in LANL should be going to -- to WIPP for storage before we take any other kind of waste.

[Comment 58-5-2][Response 8.1] With respect to plutonium, my understanding that diluted plutonium has already gone to WIPP. That is a violation of the contract that was made with DOE and the State of New Mexico. New Mexico has a contract, and that should be uppermost to be -- the contract should be respected.

[Comment 58-5-3][Response 5.1] The second thing I wanted to ask is you have said that there's 30 metric tons at Pantex, and these are in plutonium pits. How many plutonium pits does 30 million tons make? **[Comment 58-5-4][Response 7.2]** And where -- why can't we just use those plutonium pits and not --not dilute them? **[Comment 58-5-5][Response 8.1]** Number two, no additional plutonium goes to WIPP until all the transuranic waste is removed. And I'm -- we don't have that kind of space in WIPP. That would be changing its mission.

[Comment 58-5-6][Response 7.3] And the last is DOE must immobilize and safely store the plutonium and not have it transported all over the place. **[Comment 58-5-7][Response 24.2]** And don't -- we have to look at this with respect to all the nuclear waste that is being produced and also in the future of these plutonium pits that are supposed to be manufactured at both LANL and the Savannah River site. This is just totally, totally a horrific issue with respect to waste.

Correspondence #58-6

MR. GOODMAN: Great. Thank you very much.

Next, we have Mark Hayden.

MARK HAYDEN: Thank you. It's Mark, M-a-r-k. Last name, Hayden, H-a-y-d-e-n. **[Comment 58-6-1][Response 8.2]** I have a question regarding WIPP capacity.

Given the more frequent transuranic waste shipments from EM-LA and other states, will WIPP be filled? When will it happen? How much room is left? And what is the current amount ELMA (sic) can send to WIPP? Thank you.

Correspondence #58-7

MR. GOODMAN: Thank you. And again, we aren't responding to comments tonight, but responses to your comments and all other comments will be included in the final EIS.

So just to reiterate, if you would like to make a comment here in this forum tonight and you are logged into the webinar, please press the raise hand button at the bottom of the Zoom platform, and we will put you in the queue. And when it's your turn, you should be able to unmute yourself after I call on you.

So with that, going to the next commenter, who is Beata Tsosie-Pena.

BEATA TSOSIE: Good evening. My name is Beata Tsosie. B-e-a-t-a, last name, T-s-o-s-i-e.

With your respect, I'm a mother, farmer, birth worker, caregiver of our lands and waters and our birth waters from Santa Clara Pueblo. As a dual citizen and someone living with the daily realities of living adjacent to LANL, I protest and reject the ongoing occupation of nuclear colonialism in our ancestral homelands and across native lands in this country.

[Comment 58-7-1][Response 2.4] I am against the disposition of 34 metric tons of plutonium and any relocation of the surplus that involves increasing the burden on our -- on ours or other states and unwitting communities. **[Comment 58-7-2][Response 7.5]** It needs to stay at the site where it originated and go through any oxidizing or other processes on the site it originated from. **[Comment 58-7-3][Response 27.5]** I am

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against any potential for increased pit production. **[Comment 58-7-4][Response 5.5]** I object to the oxidation process taking place in Los Alamos and any transport to LANL for this process to occur.

[Comment 58-7-5][Response 6.2] If I had to, I guess I would be in favor of the no option alternative to increase oxidizing capacity at LANL. **[Comment 58-7-6][Response 26.1]** I don't want it coming into New Mexico and contributing to any waste streams or increased processes in our state and traditional homelands. We are completely overburdened with LANL impacts as it is, and our lands and peoples have been impacted from decades of nuclear, environmental violence, racism, and colonialism and need reprieve to heal and restore the harm and desecration from plutonium processing and weapons development that has already occurred.

[Comment 58-7-7][Response 9.2] I call on the DOE, LANL and NNSA, to take a moral and ethical stance against any complicity to perpetuating the physical, spiritual, cultural, and health impacts on our indigenous peoples and earth. There must be direct tribal consultation with every tribal nation along these proposed routes as well as any communities. They and we deserve free, informed, and prior consent in accordance with the rights of indigenous peoples.

I do not consent to the limited options presented and the lack of direct consultation and information in tribal, low-income, and peoples of color communities. Thank you.

Correspondence #58-8

MR. GOODMAN: Thank you very much.

Next up is Jean Nichols. Jean, you should be able to unmute yourself.

JEAN NICHOLS: Okay.

MR. GOODMAN: Yeah.

JEAN NICHOLS: All right. My name is Jean Nichols. J-e-a-n, N-i-c-h-o-l-s. And I would like to echo what Beata Tsosie said. I totally agree with her on all of that.

[Comment 58-8-1][Response 5.5] I'm really, really worried about the oxidation process at LANL. I've -- we haven't had good trust with the safety records of LANL. **[Comment 58-8-2][Response 4.2]** And we're -- I live directly, you know, 40 miles downwind, which is a lot further than some people. But it -- during the Cerro Grande fire, it was obvious that we were getting ashes and smoke. And - - and I have too much Strontium-90 in my house that came from the Cerro Grande fire.

So the idea that we're going to make oxide in this, you know, tiny form that a microscopic amount, if it's ingested, causes cancer 100 percent of the time. This is unacceptable. **[Comment 58-8-3][Response 7.4]** You know, this -- the waste should stay at Pantex or it should, you know, all the process should happen at Savannah River, which I realize is a, you know, NIMBY thing. But this transporting across 10 states and back and across New Mexico three times is just absurd. And there's got to be an -- a different alternative.

[Comment 58-8-4][Response 27.5] I agree with the people who said, you know, there should be other sites where the waste is being produced. You know, so if Pandex has all this -- and if they have all this -- all these number of pits, why are we making more pits? You know, I know -- I know this is all about the technical stuff, but I think you have to recognize that nuclear weapons are immoral and should not be made anymore.

[Comment 58-8-5][Response 8.3] You know, we should be dealing with climate change and not -- and not going down this road, which is just opening the -- the floodgates to more and more waste and a -- and no end zone for the -- for WIPP. Let's stick with the original WIPP. And, you know, we said in the beginning, when WIPP was opening, that it wasn't a question of when an accident happened, if an accident happened, but when. And it only took about three years for that to happen.

[Comment 58-8-6][Response 26.1] So this is just putting us at terrible risk, and I just think we should put a stop to all of it. So thank you very much.

Correspondence #58-9

MR. GOODMAN: Thank you. Okay. With that, I am not seeing any other hands raised in the chat. There's one -- there was one and then it went away. There we go. There's a couple.

Okay. Kathy Sanchez, you can go ahead and unmute.

KATHY SANCHEZ: Okay. I am Kathy Sanchez, S-a-n-c-h-e-z. From San Ildefonso Pueblo. And I -- at this point, I am a grandmother looking forward to being a great-grandmother.

[Comment 58-9-1][Response 23.5] However, we live right below Los Alamos National Laboratory. All of this waste is going to go back and forth past our village, past several other villages, and **[Comment 58-9-2][Response 27.9]** we've been traumatized by nuclear business going on since 1944, and it's not stopped. War is supposed to end. War is not the means to an end if you keep producing more plutonium pits for new nuclear weapons.

This is insane. This is crazy. We're -- lost two elders within the month of January, and it is very painful to see the mental deterioration, the physical deterioration that we are subjected to because of this colonial thinking that has never stopped. If you would just stop and do no harm, we wouldn't be at this point of having to -- how do we maintain a deadly nuclear arsenal?

This is crazy. It is immoral. It is illegal according to the nonproliferation treaties that other nations have signed. And why doesn't the U.S. stop being a bully with its nuclear production? Money is at the head of this monster. We are not getting it. **[Comment 58-9-3][Response 1.2]** We're not getting money to fund the research to have safer means of disposal. **[Comment 58-9-4][Response 27.3]** This is crazy. This is insane.

And we are looking at the trees that are dying, our animals that are dying, the fish that we can't eat anymore. We are getting to the mentality that you've done without it so far. So don't think that it's going to be a concern of ours if you don't have what you had before. You're demising our cultural connectivity with Mother Earth. She is telling you to stop. Her waters are being polluted. Our airs are being polluted.

This manipulation by man to keep producing nuclear weaponry so they can be ahead of the

Correspondence

war game is insane. **[Comment 58-9-5][Response 23.5]** You have to stop this transportation. There are no safe options. And I will do written comments later on as well. So thank you for listening.

Correspondence #58-10

MR. GOODMAN: Thank you very much.

Next. We have Don Moniak. Don, it looks like you're unmuted, but I can't hear you.

Don, are you able to I can see you're unmuted, but we cannot hear you.

Okay. I'll -- I see you can't hear me, and you submitted your comment via the chat. So I'll go ahead and read that.

Your comment is: **[Comment 58-10-1][Response 26.1]** There are very few people in support of this option or any part of this program. **[Comment 58-10-2][Response 7.4]** What is being done with the non-surplus pits at PTX? If a vault is being planned for 4,000 non-surplus pits and strategic reserve pits, why not a vault for 10,000 demilitarized stuffed pits that have already been -- that already have plutonium in its most stable form and in a robust container?

Thank you for that comment.

Correspondence #58-11

And with that, I will move on to Joni Arends.

JONI ARENDS: Good evening. My name is Joni Arends. J-o-n-i, A-r-e-n-d-s. I'm a co-founder and director of Concerned Citizens for Nuclear Safety.

[Comment 58-11-1][Response 1.1] My main question is why do we have 100,000 pounds of surplus plutonium? I think it's another example of DOE's bad management. And this proposal is just another step in the Waste Shell Game. I was at the 1994 public hearings. I made comments in 1994. **[Comment 58-11-2][Response 7.3]** CCNS supported the immobilization alternative. DOE withdrew the immobilization alternative, and the immobilization alternative is not found in this draft.

[Comment 58-11-3][Response 9.7] I want to reiterate that we need a PEIS for this project. The current draft is inadequate to analyze for all of the impacts across 10 or states at four or five different DOE sites. **[Comment 58-11-4][Response 9.3]** It's -- DOE is not complying with NEPA, the National Environmental Policy Act, to provide us with the information that we need for analysis.

[Comment 58-11-5][Response 27.6] So there's a couple of inconsistencies across the DOE. LANL wants to leave 200,000 cubic yards of waste on site. They've determined that through their proposals for the corrective measure evaluations for the material disposal areas, C as in cat, and G as in go at the site. Yet they're expanding WIPP. They're planning on leaving the waste on site at LANL without removing it, thereby continuing to threaten the regional drinking water aquifer that's been determined to be a sole source drinking water aquifer by the EPA.

It's just another example of the Shell Game, the Waste Shell Game that DOE is trying to play. And I've just given one or two examples, and hopefully I'll be able to make more comments of other examples of the Waste Shell Game. Thank you.

Correspondence #58-12

MR. GOODMAN: Yes, thank you. And thank you for being respectful of the three minutes. I think if you would like to make a subsequent comment, I expect that we will have time to allow you to do so. So if you would like to get back in the queue, please re-raise your hand.

Next. Patricia Sheely. You can go ahead and unmute yourself.

PATRICIA SHEELY: Hello?

MR. GOODMAN: We can hear you.

PATRICIA SHEELY: My name is Patricia Sheely. Patr-i-c-i-a, S-h-e-e-l-y. I have been following information on this project, and **[Comment 58-12-1][Response 23.5]** I am concerned about the the transportation of these materials.

They're -- they're just going back and forth across the country, and that's a big concern. But as I listened to this presentation, I came up with some questions. I understand that you're not going to answer them, but these are the questions that came to me. **[Comment 58-12-2][Response 8.2]** Is all of this material, the metric tons, going to fit into the present WIPP? Or does this mean that WIPP is going to be continually expanded?

[Comment 58-12-3][Response 5.2] And then also, when is this going to be completed? Is this going to be -- this transportation and processing going to be completed in a few years, or is this going to be a long process? I think this kind of information is important to the general public. **[Comment 58-12-4][Response 1.1]** And then what about future excess material? Is this just going to be an ongoing thing that the 34 metric tons is going to that's going to become a bigger number.

[Comment 58-12-5][Response 8.1] WIPP was supposed to be a pilot project. It wasn't meant to become the site for the disposal of all the nuclear material or nuclear waste for the United States. So that's -- that's a concern that I have, is WIPP is just going to be expanded and expanded and continue on. Thank you.

Correspondence #58-13

MR. GOODMAN: Thank you. And next we have Bob P.

BOB PACZYNSKI: Dave, can you hear me?

MR. GOODMAN: Yes, we can.

BOB PACZYNSKI: Thank you very much. And good evening to all. I'm calling from South Carolina. My name is Bob Paczynski. First name is B-o-b. Last name is P, as in Peter, a-c-z-y-n-s-k-i. I had a few quick questions.

Ironically, I think Ms. Sheely covered some of them, which is first of all, **[Comment 58-13-**

Correspondence

1][Response 5.1] can we enumerate where the composite of the 34 metric tons of nuclear waste is currently located? Is that at one site? Is it distributed at multiple sites? And what's the level that is at each one of the different sites, assuming that there are different sites?

[Comment 58-13-2][Response 5.2] Secondly, what is the time frame for the remediation and transportation of all these materials to their final disposition state? **[Comment 58-13-3][Response 9.6]** And thirdly, given that I'm assuming this will take years to complete that remediation and transfer process, whether there will be additional ongoing environmental impact statements that will look at additional or alternative ways of remediating, storing, and transporting over time? Thank you very much for your attention.

Correspondence #58-14

MR. GOODMAN: Thank you for your comment.

So with that, I do not see that anybody else is in the queue. So if you would like to make a comment, you can very quickly get to the top of the queue by raising your hand. And if you are just joining the webinar, at the bottom of the screen in Zoom, you can press raise hand and that will put you in the queue. Or if you've called in by phone, you can press star 9, and that will get you in the queue. There we go.

Okay. Kayleigh Warren, please go ahead. Let's see. There you go. Now you can.

KAYLEIGH WARREN: All right. Good evening. My name is Kayleigh, K-a-y-l-e-i-g-h, Warren. I'm here in my capacity as Environmental Health and Justice Program Coordinator for the Espanola Valley local nonprofit organization, Tewa Women United. And I'm also a member of Santa Clara Pueblo, which is the second closest tribe to Los Alamos National Labs.

The plot of farmland where my family has and continues to farm our ancestral corn, beans, and squash is within minutes of the highway that the waste will be traveling on its way to and from LANL. **[Comment 58-14-1][Response 5.5]** I'm disturbed by the thought of the nation's excess plutonium being oxidized in such close proximity to my people and all any of us have ever known to mean home. We are vehemently opposed to additional plutonium being brought to the state of New Mexico.

[Comment 58-14-2][Response 8.1] It cannot continue to be ignored that WIPP has a limited mission and proposed projects like this serve to make temporary facility permanent and further degrade this state, our lands and people, and the futures of all as sacrificial and expendable. **[Comment 58-14-3][Response 9.7]** As our elders have stated, there are no safe or just options in this scenario, but at the very least, we ask that a PEIS be completed, **[Comment 58-14-4][Response 9.6]** and that LANL follow the law and comply with NEPA . Thank you.

Correspondence #58-15

MR. GOODMAN: Thank you. And next, we have Betty Kuhn.

BETTY KUHN: Can you hear me?

MR. GOODMAN: Yes, we can.

BETTY KUHN: Okay. **[Comment 58-15-1][Response 11.3]** I have not heard any environmental assessment of seismic activity in the area of the proposed transport routes **[Comment 58-15-2][Response 8.3]** as well as the proposed final placement of these cylinders at WIPP. This is an area in Eddy County that has substantial surging seismic activity above 2.5, up to 5.4, you know, earthquake measurements.

And it's -- and it's only continuing because -- and it's due to the fracking process and the produced water being deposited of underground creating the seismic activity, so trucks would be vulnerable as well as -- as well as the WIPP site itself. Thank you.

Correspondence #58-16

MR. GOODMAN: Thank you.

Okay. Dan Solitz, I see that you are -- you have your hand raised again. So let's try again to see if you're able to unmute yourself. Dan, are you able to unmute?

Okay. So we can't hear you. I guess I'll offer this up as I did for Don before. If you would like to put your comment in the chat, I would be happy to read it on your behalf.

And besides Dan, I do not see that there are any other hands raised right now. So would anybody else like to make a comment?

Don Moniak, let's see if we can hear you this time. I can see you're unmuted, but we are not hearing you.

Don, we cannot hear you.

Okay. So I have two hands raised, Don Moniak and Dan Solitz, but neither of them -- okay.

So, Don, your comment is: **[Comment 58-16-1][Response 27.4]** South Carolina, and do we have an agreement to remove 9.0 tons of plutonium by 2037. How is this being addressed?

Thank you for that.

I'm going to try one more time for Dan. They'll go there.

Don, you have another comment: **[Comment 58-16-2][Response 27.4]** How can DOE consider moving more plutonium to SRS when there will be substantial fines if the 9.0 tons is not removed?

Okay. So at this point, I am not seeing any other hands raised. So if anybody would like to get in the queue, please raise your hand, and you'll be at the top of the list.

Correspondence #58-17

Jean Nichols, I see that you would raise your hand, but no longer see that option. I don't know why you don't see that option, but I have unmuted you, so please go ahead.

JEAN NICHOLS: Okay. Yes, I would just like to say on one of the -- **[Comment 58-17-**

Correspondence

1][Response 27.4] one of the things I read earlier about what was happening, it said that Savannah was being paid -- or the state of South Carolina was being paid \$600 million to keep whatever waste was there until it could be removed.

Is New Mexico being paid anything that we don't know about somehow under the table, you know, for all this waste coming to us? You know, what's the -- what's the financial aspect of this? I know you're not answering questions tonight, but it just -- you know, I -
- **[Comment 58-17-2][Response 5.5]** I just think this moving -- moving the waste all around the country is -- is ridiculous, so.

[Comment 58-17-3][Response 26.1] And -- and I'd like to, you know, speak in support of all the indigenous, all the people, the Pueblo people here. You know, several of them have spoken up, but this is -- this is not right . Thank you.

Correspondence #58-18

MR. GOODMAN: Thank you, Jean.

Okay. Would anybody else like to raise their hand?

Kathy Sanchez. Please go ahead.

KATHY SANCHEZ: Okay. Just some afterthought is that I've been arguing with my grandson about, " **[Comment 58-18-1][Response 4.1]** dilution is not the solution," and I think we're going through that same again. And if you're going to dilute, what are you diluting it with? And how much of that is clear, clean, fresh water that is being misused?

And if they can't use clear, clean water, and they use produced water and make use of the contaminated water that they produce, what is the -- what are alternatives for dilution? **[Comment 58-18-2][Response 4.2]** And powder plutonium is way more dangerous than the -- the plutonium we're dealing with at the moment, yet they're very, very dangerous. So just some thoughts on that for now. Thank you.

Correspondence #58-19

MR. GOODMAN: Thank you again. Are there any other folks that would like to make a comment? Either those that have previously or those that would like to make a first comment?

Joni Arends. You can go ahead. Joni, you should be able to unmute yourself.

JONI ARENDS: Hi. Joni Arends, Concerned Citizens for Nuclear Safety. I wanted to follow up on the seismic concerns folks have.

[Comment 58-19-1][Response 11.2] There's a report that came out in 2020, a LANL report entitled Seismicity Monitoring in North Central New Mexico by the Los Alamos Seismic Network. And that was published in the Seismological Research Letters. And it says that from 1999 to the present, funding levels have, "still been sparse and variable." And that, "continued data acquisition, archiving, and return - - routine analysis remain ongoing challenges."

This -- this report talks about the network of 17 stations that operate for -- operate to detect seismic activity in the area at LANL and around LANL. The seismic network is not working properly because the U.S. government, you know, has been investing billions for infrastructure, equipment, and personnel to support expanded production of plutonium triggers for nuclear weapons, and not taking care of the basics to be able to provide the people with data of seismic activity in the area.

And it's unfortunate that we don't have data from 1999 forward. We need this network to be working properly with expanded, proposed expanded pit production, plus expanded dealing with the surplus plutonium. It's -- it's very interesting that there's money for things that DOE wants and no money for things that are necessary, but DOE doesn't want to know about, such as seismic activity on the Pajarito Plateau in all of this.

So this -- this is on our website. It's a December 1, 2022 CCNS news update. And it's entitled What is the Los Alamos Seismic Network and Why Is It Not Working Properly? **[Comment 58-19-2][Response 26.1]** The -- the risk that DOE is planning to bring to Los Alamos is huge . And perhaps I can talk some about PF-4 on the next opportunity. Thank you.

MR. GOODMAN: Thank you. And seeing that there are no other hands raised right now, if you would like to continue, please do.

JONI ARENDS: Thank you. DOE --

MR. GOODMAN: Are you still there? It doesn't -- looks like -- I didn't mute you. Joni, I'm not quite sure what happened there.

JONI ARENDS: Okay.

MR. GOODMAN: Are you able to unmute yourself? Sorry about that.

JONI ARENDS: Yes, I think so. Can you hear me now?

MR. GOODMAN: Yes, we can.

JONI ARENDS: Okay. **[Comment 58-19-3][Response 5.5]** So the plutonium facility has had problems with too many things going on in the building for many, many years. The Defense Nuclear Facility Board has -- Safety Board has raised a lot of issues with regard to excess material in the basement of the plutonium facility. There's been leaks in the basement of the plutonium facility. There have been cans of plutonium stored in places where they should not have been stored.

And now, this proposal is to bring plutonium for -- to pulverize the plutonium in the plutonium facility. The DNFSB has raised issues with regard to the confinement -- or excuse me -- the ventilation system for since the early 2000s. And DOE has not fixed those ventilation problems, including providing negative pressure to keep the plutonium inside the building if there was an accident or a release.

And that is a huge problem. And now, DOE is proposing to bring even more plutonium to that building. **[Comment 58-19-4][Response 9.7]** And because we don't have a PEIS for this proposal, we don't know about the other risks across the complex to understand all the threats to public health and the environment. And CCNS supports a programmatic EIS for surplus plutonium. Thank you.

Correspondence #58-20

MR. GOODMAN: Thank you very much.

Okay. Would anybody else like to make a comment? If so, please press the raise hand button on Zoom or star 9. If you're on the phone.

I see Paula Seaton. Paula, you had your hand raised and then it went down, so maybe you don't want to there we go. Paula, go ahead.

PAULA SEATON: Hi. My name is Paula Seaton. Last name S-e-a-t-o-n. **[Comment 58-20-1][Response 4.2]** And I have many concerns about this oxygenation of plutonium . It just sounds terrifying to me.

[Comment 58-20-2][Response 27.3] I was born in the northeastern part of the state of New Mexico. Both of my parents died from cancer. Each of them had two types of cancer. I feel our state has been sacrificed. Tests were done early on in New Mexico, and not only down-winders, but the up-winders were also affected. Tests haven't even been done in the northeastern part of the state. I've heard many stories about cattle dying from cancer and having something called cancer eye one year, where many cows had to be put down due to cancer eye.

We can't count on which way the wind is going to blow or how hard it's going to blow. And with climate change, winds, fires, floods, will continue to cause more issues. I know many people that live in my area with nerve-related issues, which I can't help but wonder, are they related to the LANL issues that continue to go on and how close we are to them?

I know many people with Parkinson's and multiple sclerosis, respiratory diseases, cancer, and mental illness, which I wonder, are there any ways to test for these levels of radioactivity that may be causing these issues in my community? I live in that -- in Budo, New Mexico area, which during the Cerro Grande fire, it was just horrifying to see those ugly -- ugly plumes of smoke. All colors, all colors. I had never seen anything like it. It was just terrifying.

And I feel like, we've got to wake up. It feels like we've gone mad. Let's take a breath and think about our time here now on the planet. Money should be used for positive things like health and, you know, positive -- homes. And we can't continue to spend money on war. It's it's just crazy. Thank you.

Correspondence #58-21

MR. GOODMAN: Thank you.

Next, Paula Seaton, you would like to make another comment. Please go ahead. Paula, you can unmute yourself.

Oh, I'm sorry. That was Paula that had just made that. It was Kathy.

Sorry if I -- Kathy, you can go ahead.

KATHY SANCHEZ: Okay, thank you. Just some thoughts that come up while we're listening to everybody.

[Comment 58-21-1][Response 27.3] And one of them is, if the current pit facilities are so unsafe and not properly maintained, who is going to be working in there? And I keep hearing the -- the lab sending out outreach to our young people, to our high school students, to our college students, enticing them to work out there.

And so you're -- we're talking about our brain drain again and killing our young ones. You're killing us old ones with all these nuclear related diseases, but now going after young ones that can do the dirty work for the people. And if you bring in more workers, what level of quality training do you have? There's nothing written about how to maintain safety in the area.

And also mentioning about the fire, and we're in a drought situation. Our trees are crumbling because they don't get enough water. Trees are falling over. Fires are increased on all -- both ranges of our mountains. **[Comment 58-21-2][Response 26.1]** And yet, we want to do more dangerous nuclear work. That is insane. That is crazy.

Stop. Have a moratorium on this nuclear madness. **[Comment 58-21-3][Response 27.9]** And nuclear radiation does affect the mind and makes people act like juveniles, act like they have no care in the world just because the money is right there hanging, carrot in front of their faces.

So yes, just let's stop this madness. Think about our spiritual beings, who we are and the love center that we should be having and get out of this war mentality. War is not the answer. Thank you.

Correspondence #58-22

MR. GOODMAN: Thank you.

Okay. I have nobody else in the queue right now. If you would like to get to the top of the queue, please raise your hand, and I will unmute you.

Kayleigh Warren, please go ahead. Kayleigh, you should be able to unmute yourself there.

AARON WARREN: Hello? Can you hear me?

MR. GOODMAN: Yes.

AARON WARREN: Hi there. So my name is Aaron Warren. I am Tewa, so I am indigenous to Santa Clara Pueblo. So (in Tewa) to all of my table relatives and all of my indigenous people that are in here.

So tonight, **[Comment 58-22-1][Response 9.5]** we're taking your word that you'll potentially incorporate these opinions and these comments into a revised version of the Environmental Impact Statement. Is that correct?

MR. GOODMAN: Yes, it is. Yes. Comments received tonight will be responded to in the final EIS.

AARON WARREN: Okay. Yeah. I pray that we're just not talking to ourselves here, you know what I mean? Yeah. **[Comment 58-22-2][Response 26.1]** So as I'm sitting here and

Correspondence

I'm listening to all these strong people voice their truth and their pain, I think it's important that we recognize that a lot of these -- those who are at the center of this issue will make choices that will not leave them to bear the brunt of what the risks could be if this should go through. And that's just a fact.

So there are far more vulnerable people, especially people of color. There are women. There are children. And there are indigenous people of this land that -- they won't have the option to move or figure out what to do when things will go inevitably wrong in this situation.

And so, we -- not we, but you all have to recognize the distance and the privilege that you're able to have when you discuss the livelihood and the land bases that are not your own. And so I just want to leave you with this.

Dave, you represent the entities and the actions that will impact the future of this space in New Mexico forever. And you really have to think on this, not just you, but the people that you represent. And you have to listen to this community when we say no. This leads to so many instances where there's just a complete lack of priority. There's a complete lack of a'gin, which means respect in my language, and it speaks to larger systems of abuse.

When they abuse underrepresented groups and vulnerable groups at the -- at the hands of these institutions. And it's also both disheartening that so many people in so many lifetimes have had to say the same thing, essentially, and we'll keep saying it for as long as these things happen to us.

[Comment 58-22-3][Response 5.5] So I just want to leave it with there should be no additional plutonium that should be brought to LANL. **[Comment 58-22-4][Response 27.5]** There should be no new pits. There should be no new pit production, no warheads, no transport for the pit production, **[Comment 58-22-5][Response 5.5]** no plutonium processing for the pits, no pit TRU through WIPP, **[Comment 58-22-6][Response 27.5]** and no funding for pit production. And thank you to all of my relatives that have spoken.

Correspondence #58-23

MR. GOODMAN: Thank you for your comment.

Beata Tsosie-Pena, you can provide another comment.

BEATA TSOSIE: Hello, thank you, and thank you to those who are commenting.

[Comment 58-23-1][Response 8.1] I wanted to just talk some more about WIPP and also reiterate that it is not a permanent repository, and so these proposals need to be tabled until there is long term solutions found for these waste streams that nobody deserves in their backyard but are in our -- in our laps and in our children's laps to inherit.

[Comment 58-23-2][Response 9.7] So I was not aware that there was not sitewide and programmatic environmental impact statements for these proposals. I would expect that to be in every community where there is potential for accident during transportation, where there is potential for accidental releases into the environment, to accidental exposures to workers who are not protected by current radiation exposure regulations, as those are based on a scientific racist model of an adult white male. And so I would want that to be in the environmental impact statement.

[Comment 58-23-3][Response 23.4] Also, anywhere within any community within a 100-mile radius that these transports would be going through, what are the emergency operation controls within these communities for dealing with an accident? What are the community assurance and funds that are going to be given in advance to these communities where this waste is being transported through and where this disposition is happening?

[Comment 58-23-4][Response 7.5] I know for a fact that the communities we reside in do not have that capacity to deal with this level of an accident in our roadways and in our communities, on our waters. So that would just be disastrous, which is why these materials need to stay on site. **[Comment 58-23-5][Response 8.1]** It blows my mind that there has been just the blatant loopholes and pushing to make WIPP be something that it isn't.

And then whether it's a loophole between getting individual counties to respond when they don't even have the choice of a wide range of options for economic viability in their communities because of the history of colonization in those communities and loss of land and resources to the peoples of these places.

So there's the economic dependency that is another burden that our state is faced with and having to choose between what is right for our communities and for future generations. And with these choices of -- that present them with possible harm if something goes wrong. Thank you.

Correspondence #58-24

MR. GOODMAN: Thank you again.

Okay. Would anybody else like to raise their hand and make a comment? There's nobody in the queue currently.

Let's see. Steve and Delores Kopp. Please go ahead.

STEVE KOPP: Hi, Dave. Thank you for the opportunity to comment.

MR. GOODMAN: Yes.

STEVE KOPP: I'm a recently retired Carlsbad, New Mexico -- I'm a resident of Carlsbad, and I'm the recently retired Navarro program manager for the Carlsbad Technical System Contract. So I am retired. All my comments are my personal comments. They're not the comments from the -- anyone at WIPP or anybody at the Department of Energy. They're personal comments.

[Comment 58-24-1][Response 8.6] Under this comment -- under the contract, the CPAC contract, we have provided technical oversight for DOE WIPP operations and generated site audits for DOE sites shipping TRU waste to WIPP, including LANL. DOE has decided clearly to dispose of surplus plutonium from the nation's nuclear stockpile. This surplus plutonium will be processed, adulterated, and appropriately disposed of as contact handled TRU waste at WIPP.

The resulting waste can then be legally disposed of at WIPP, consistent with the WIPP permit and the WIPP waste exception criteria. WIPP does have adequate capacity, I know this, to dispose of the waste, all of the waste, and it's the only viable permanent disposition

Correspondence

option for this waste term. This is -- contrary to a previous commenter, this is a permanent disposition option.

[Comment 58-24-2][Response 5.3] Most of the comments during the virtual hearing tonight focused on whether or not the waste should come to WIPP. This is not the issue being discussed tonight. The actual issue under this EIS is selecting the best treatment and adulterated -- adulteration pathway to the excess plutonium that will be coming to WIPP.

[Comment 58-24-3][Response 5.4] I support the option, the all LANL alternative, because it's the -- clearly the safest, least environmentally impactful, most secure, least transportation risk, most cost-effective alternative based on all of the EIS criteria that were presented. Thanks for the opportunity to comment.

Correspondence #58-25

MR. GOODMAN: Thank you very much.

Would anybody else like to get in the queue? I'm not seeing anybody for now. Okay. There is one.

Betty Kuhn, you can go ahead and make another comment.

BETTY KUHN: Thank you. **[Comment 58-25-1][Response 27.3]** Several years ago, I visited an endocrinologist up at Los Alamos - - I live in Santa Fe -- regarding a thyroid dysfunction issue. We had an interesting conversation, and part of that conversation, my question was if there was prevalence of thyroid disease in the area, and the -- the doctor said that thyroid cancer was endemic in the Los Alamos area. The prevalence was way out of range.

So it would be really interesting to have data on just all of the different areas that -- like Los Alamos, the Carlsbad Hobbs area that are, you know, impacted by the WIPP, just all the diseases that are caused by, you know, working around nuclear or radioactive materials. Thank you.

Correspondence #58-26

MR. GOODMAN: Thank you.

Okay. Would anybody else like to raise their hand?

Joni Arends, you can go ahead.

JONI ARENDS: Thank you.

[Comment 58-26-1][Response 8.1] I -- DOE -- back in the day, DOE promised the people of New Mexico that it would clean up all the transuranic waste at all of its sites around the country that -- where they worked on nuclear weapons, and they would be able to clean up all of that waste in 25 years. And then they would close WIPP.

Well, that's not what has happened. And DOE has done a sleight of hand to say that they now need to keep WIPP open until 2080. Or let me be more specific. They said we need to keep WIPP open beyond 2080. Now, that's a long time from 2024.

Further, there's the agreement between the State of New Mexico and the Department of Energy that was the result of litigation brought by then Attorney General Jeff Bingaman against DOE that says that -- that WIPP is not to be the only repository for transuranic waste. And that's under the consultation and cooperation agreement that was signed in the '80s.

DOE is ignoring that agreement. DOE is doing -- is using every sleight of hand in order to make these proposals to bring more plutonium, more waste, more threats, more risk to New Mexico. Basically, as you've heard tonight, every part of New Mexico has been impacted by the colonization by the nuclear weapons industry, everything from uranium mining, to testing, to production, to disposal.

[Comment 58-26-2][Response 9.7] DOE needs to follow the law. DOE needs to provide us with a programmatic environmental impact statement. My time is up. Thank you for this opportunity, Dave.

Correspondence #58-27

MR. GOODMAN: Thank you very much.

Okay. Would anybody else like to raise their hand and make a comment?

Paula Seaton, please go ahead.

PAULA SEATON: Hi, this is Paula Seaton again. Se-a-t-o-n.

[Comment 58-27-1][Response 7.5] I just feel that there are really no safe options, and it just doesn't make sense for this unnecessary transportation of moving this toxic substance around the country. I feel like there really are no viable solutions at this point. I don't know, but I feel like it should all be done in one place. I love the idea of getting rid of this toxic substance, but it doesn't make sense to move it around.

[Comment 58-27-2][Response 26.3] And I feel like taxpayers are going to be paying for this, and they'd really need to have a say. And I just feel like it's such a, you know, environmental injustice for New Mexico, for communities of color and low economic status to be dealing with this issue. **[Comment 58-27-3][Response 27.3]** It's just not fair. And I just wanted to say that I just had a good friend that died from cancer, and he fought the Cerro Grande fire, and I always wondered if his cancer wasn't caused from that.

The other thing is, **[Comment 58-27-4][Response 8.3]** I was concerned when I heard that there were the five layers of the outer SID 3013 protective container that only lasts for 50 years. Like, then what? Then what? **[Comment 58-27-5][Response 5.5]** And the seismic activity, it doesn't make sense to be doing stuff at Los Alamos when the seismic activity is increased, or it seems like there are many places in the country that could -- that don't have seismic activity, which would be maybe a safer place. And just the safety records of LANL are just horrible. So I'm very concerned about doing this at LANL. Thanks. Thank you for your time.

Correspondence #58-28

MR. GOODMAN: Thank you again. Not seeing any other comments in the chat right now or hands. There we go. There's a couple.

L. Watchempino, please go ahead. I can see you've unmuted yourself, but we can't hear you currently.

We are still not able to hear you. Like I've offered up to others that we've had technical issues with on the audio side, if you'd like to put your comment in the chat, I'd be happy to read it on your behalf. Sorry, we can't hear you for now.

Kathy Sanchez. You can go ahead again.

KATHY SANCHEZ: Okay. Again, Kathy Sanchez, S-a-n-c-h-e-z, an elder from San Ildefonso Pueblo.

[Comment 58-28-1][Response 27.3] And again, thoughts keep coming as I hear people's comments. And one is, I think it's about time to have the land return back to its original inhabitants. We have never left it. We have never given it up. Our ancestors are still there. And it's about time that LANL, Los Alamos National Laboratory, move out of there. Find a safer place that they want to continue, if they want to continue in a nuclear war weapons development idea.

But I think it's about time that they move out of there in a very dangerous situation, seismically, in a basalt platform at the rim of a volcano. I think it's madness that they don't move. They get their business out of there. And I've heard of other lands because of the waters draining and moving in all of the United States, there's a lot of caverns now that are salt caverns all over. WIPP is not the only salt cavern -- cavern around.

[Comment 58-28-2][Response 26.1] And stop doing this business. Just stop it. You're producing more waste. You haven't even managed cleaning up the old waste. **[Comment 58-28-3][Response 23.3]** Now, you want to do more, and now, you're transporting a different form of the plutonium, which is the powdered one, which is even worse. Why even manipulate when you can't even stop?

[Comment 58-28-4][Response 26.3] Moratorium, land back, get over it. We're not in a war mentality. We will not, as U.S. citizens, spend our money on nuclear waste production or nuclear production, period. Thank you.

Correspondence #58-29

MR. GOODMAN: Thank you.

Okay. Dan Solitz, sounds like we're going to give you another try to see if you're able to unmute yourself. Please go ahead.

I'm not seeing that you have unmuted yourself. Dan, are you able to unmute?

Okay. Sorry about those technical issues. Again, if you would like to submit your comment in the chat, I would be happy to read it on your behalf.

And the same for L. Watchempino. L. Watchempino, if you can try to unmute yourself, we can give it a try.

I can see you're unmuted, but we cannot hear you. So to both you and Dan, if you would like to submit your comment in the chat. That would be great.

L. Watchempino says, "I can't hear you, Dave."

Can others hear me? Maxine is nodding. Okay. We'll -- we'll send a message to L. Watchempino and see if we can get his or her comment in the chat. And same with Dan.

Is there anybody else that would like to raise their hand and get in the queue?

I can hear something there. Is that L. Watchempino? I feel like I could hear something. Apparently not.

Okay. Are there any other commenters that would like to raise their hand and get in the queue? One suggested solution to those that have been unable to be heard on the Zoom platform, you can try calling in on your phone, and let's see if we can -- can somebody give the phone number out? I don't have that handy here. I can put that in the -- in the chat.

Okay. So Dan Solitz has submitted his comment via chat, and I will read it on his behalf: **[Comment 58-29-1][Response 1.1]** Please more precisely define readily available for weapons use.

So thank you for that comment, Dan, and apologies that we're not able to hear you over the webinar.

So let's see. I am putting the dial-in info, meeting ID, and password information. So if you would like to log off the Zoom and call in by phone, we would be happy to take your comment that way. And apologies if there's been any complication in you providing your comment.

Wait, I put that not to everybody, so hang on one sec. That should be to everybody. So there's the phone number and call-in information.

So I'll give folks a minute or two to join via that method if they would like. And I will also check to see if there is anybody else that would like to raise their hand in the Zoom platform. And also, noting that if you do call in by phone, and you would like to get in the queue, you will then have to hit star 9.

Correspondence #58-30

So Beata Tsosie-Pena, we've had success in allowing you to be heard, so please go ahead.

BEATA TSOSIE: Thank you. **[Comment 58-30-1][Response 9.3]** I'd just like to ask that another hearing be granted, given some technical difficulties in this one, and also that more in-person hearings are granted in the communities where this transportation is proposed and also an extension of comments.

[Comment 58-30-2][Response 17.12] And I wanted to talk some more just about my concerns about powdered plutonium as well. If it were to have a release due to an accident,

Correspondence

my understanding is it's it's pretty impossible to remediate from the environment. And so that would constitute a disaster for our land-based communities. **[Comment 58-30-3][Response 9.3]** And if you want any definition of what a land-based community is, take the time, make these meetings culturally relevant to land-based and rural communities, people of color communities, where there can be question and answer sessions combined with these kind of formats.

[Comment 58-30-4][Response 5.2] And I also just object to the astronomical costs of these proposals. My understanding is it's between, like 19 and 20 billion, which is probably an underestimate, going over the next several decades. And then that includes with the understanding that these -- these disassembly and production would expand at South Carolina and Los Alamos.

[Comment 58-30-5][Response 7.5] And again, it is not okay for these -- there's no reason why the stabilization can't happen on site. **[Comment 58-30-6][Response 26.3]** Give that money -- if you're going to spend that amount of money, which is abhorrent, given the -- the social ills that we face in our communities as a result of nuclear colonialism in our communities and the disparities that we face, for that amount of money to be, like, flippantly tossed around as -- with these proposals, it's -- it's insulting.

And so, yeah. **[Comment 58-30-7][Response 7.5]** There's no reason that that can't get diverted to where this is being produced. **[Comment 58-30-8][Response 8.3]** And if anything, like, minimize the transport to the WIPP site, which in my regard will never be a permanent facility due to the salt based factor and the fact that this waste will outlive the containers it's stored in. So there's no way of knowing the permanency of this pilot project and the way that waste keeps getting reclassified and the privatization loopholes of the WIPP facility. Thank you.

Correspondence #58-31

MR. GOODMAN: Thanks again.

Kathy Sanchez, you would like to make another comment. Please feel free to unmute yourself.

KATHY SANCHEZ: Sorry, I just forgot to lower my hand.

MR. GOODMAN: Oh, no worries. Thank you.

L. Watchempino, trying again with you here. You should be able to unmute yourself, and I can see that you have.

L. WATCHEMPINO: Thanks.

MR. GOODMAN: There we go.

L. WATCHEMPINO: I don't know if my comment got cut off, but I couldn't hear you. Were you able to get my first comment completely?

MR. GOODMAN: No, we couldn't hear any of it, so.

L. WATCHEMPINO: None of it?

MR. GOODMAN: Do you mind restating it? No, I'm sorry.

L. WATCHEMPINO: Oh, gosh. Well, what I will say is **[Comment 58-31-1][Response 24.2]** I was going to add a comment or ask a question about whether the production of new plutonium pits, which is also being considered at Los Alamos and the Savannah River Site, will that be happening -- will this surplus plutonium disposition be taking place at the same time that new pits are being produced at these sites? Because my earlier comment covered -- oh, I would have to go back to my notes now.

MR. GOODMAN: If you wouldn't mind doing so, that would be great because I don't -- I can -- I can confirm we could not hear any of that.

L. WATCHEMPINO: Okay. I didn't know when I got cut off, but I realized that you -- I could see you talking, and I couldn't hear you.

MR. GOODMAN: Yeah. We were --

L. WATCHEMPINO: So I --

MR. GOODMAN: This is the first time we have been able to hear you at all.

L. WATCHEMPINO: Oh, oh no.

MR. GOODMAN: I'm sorry.

L. WATCHEMPINO: **[Comment 58-31-2][Response 24.2]** I was just going to say that the national security, the NNSA in the draft EIS, had said that they were very concerned about nuclear -- the production of new plutonium pits. But I'm sorry. I can't seem to locate my notes now.

MR. GOODMAN: That's okay.

L. WATCHEMPINO: **[Comment 58-31-3][Response 9.7]** And I will put these -- my comments in writing. But I asked a question about the bounding. Because in the draft EIS, it said something about bounding, the impacts that occur at different places, and I'm assuming at different -- during transportation as well. And to me, it sounded like that meant that NNSA was trying to segment different portions of this disposition program.

And that -- that seemed to call for a programmatic impact statement because that bounding analysis to me sounded like it was inappropriate if you're going to be looking at this plutonium disposition as a whole. So I was concerned about that, and also concerned about NNSA's mission or goal to -- to limit the production of nuclear weapons.

And unfortunately, I can't quote what they said at the beginning of the draft EIS, because I just am not finding it. But I'll raise my hand if -- again in the future if I find it. I wanted to read it out as a quote.

MR. GOODMAN: Okay. Well, thank you for that comment and thanks for putting your full comment in writing. I am wondering if we have your first letter and your last name. If you would -- you can stay anonymous if you would like, but if you wouldn't mind giving your name, that would be helpful for the record.

Correspondence

L. WATCHEMPINO: Okay. I thought it was showing up as L. Watchempino, W-a-t-c-h-e-m-p-i-n-o.

Correspondence #58-32

MR. GOODMAN: Okay, great. Thank you very much.

Okay. Are there any other folks that would like to raise their hand and make a comment? I'm not seeing any hands in the queue currently. Please press the raise hand if you're on Zoom or star 9 if you've called in on the phone. Okay. It looks like we do have one via phone ending in 2433.

You should be able to unmute yourself.

LORRAINE VIEGAS: Can you hear me?

MR. GOODMAN: Yes, we can.

LORRAINE VIEGAS: Hello? Hi, it's Lorraine Viegas. Do I need to spell my name out?

MR. GOODMAN: You kind of got cut off. If you wouldn't mind restating it.

LORRAINE VIEGAS: Lorraine Viegas.

MR. GOODMAN: Got it. Thank you.

LORRAINE VIEGAS: I'm -- hi, I'm from Hobbs, New Mexico. I live about 60 miles away from the WIPP site, and I pass by the WIPP site daily for work, and I -- I work within 5 miles from the WIPP site.

[Comment 58-32-1][Response 8.3] And I see -- I see trucks hauling past every day. And I -- one thing always comes to mind is the breach that we had a couple -- a couple of years back when we had to shut down the site for a couple of years. And I know one of the sales pitches is that this is going to be saving the taxpayers a couple of billion. Well, when that breach happened, and although I know that -- how safe it is and how you guys always mention that, you know, there shouldn't be any breaches. Well, there was a breach, and even though nobody got hurt, it did cost the taxpayers billions.

So I don't think the taxpayers need that - - that liability. There's a lot of inflation going on, and -- and people are kind of hurting to survive right now. So, I mean, if you guys were going to pay for anything, then that would be great, but I -- I don't think the taxpayers need any other type of liability. **[Comment 58-32-2][Response 8.2]** You guys said that there was only going to be a certain amount to come, and now we're going to exceed that. And that waste was never meant for this facility.

[Comment 58-32-3][Response 8.7] So I think we should just stay with -- with what we have right now and not exceed any limits and not bring anything in addition. I think you guys are doing a great job right now of -- of where things are at, but let's just keep what we have. I speak for my community, and the majority of us don't -- we don't want this. So thanks for hearing my comment, and you guys have a good evening.

Correspondence #58-33

MR. GOODMAN: Thank you. You as well.

L. Watchempino, it looks like you've re-raised your hand, so you can go ahead and unmute if you would like to make another comment.

L. WATCHEMPINO: Yes, thank you. I did find the what I wanted to state about the National Nuclear Security Administration.

[Comment 58-33-1][Response 24.2] In the abstract to this draft EIS, they state that they: endeavor to prevent the development of nuclear weapons and the spread of materials or knowledge needed to create them.

So that was why I asked, is the production of new plutonium pits at Los Alamos National Lab and Savannah River Site going to be taking place at the same time that the NNSA is engaged in a program for the disposition of U.S. surplus weapons grade plutonium? So that would kind of be contradictory.

[Comment 58-33-2][Response 9.7] And the comment I had or the question I had on bounding, the preferred alternative in the DEIS says that the sub-alternatives were selected to -- in order to bound the impacts, including impacts from transportation that would occur if either site or a combination of sites was used for the disposition of 34 metric tons of surplus plutonium.

So I think that just argues -- that's justification for a programmatic environmental impact statement. We don't want pieces of this project to be segmented without looking at the big picture. Thank you.

Correspondence #58-34

MR. GOODMAN: Thank you.

All right. Not seeing any other comments or hands raised in the chat right now. There's one.

Kathy Sanchez, please go ahead.

KATHY SANCHEZ: Things are just flooding into my brain. Kathy Sanchez. **[Comment 58-34-1][Response 9.7]** The other one is that, yes, we do need that -- a new programmatic environmental assessment. **[Comment 58-34-2][Response 18.1]** And the other is that I watch my grandkids playing these war games on the videos, and I know the U.S. has produced a lot of armor piercing, metal piercing bullets and that was used in foreign wars, but the U.S. is now selling a lot of these military weapons on the streets to kids and our populations around.

And so even though the containers might be contained in another, in another, in another, et cetera, they're metal. They can be pierced. If local people, especially the youth, also are challengers that say, "Oh, I can do that. I can program it so it can be precisely able to hit, et cetera, et cetera." We are looking at different ways that they can be pierced, that they can be compromised.

[Comment 58-34-3][Response 23.3] So it's not even safe enough, you know, to talk

Correspondence

about powder plutonium being in transport. It's -- it's really not within -- it's not out of the picture that they they can be completely safe. So better not to even transport and not do this

crazy movement style, especially, again, going past our -- our lands, our generations of people that have been living here, and our whole genetic pool will be dead as far as everything if that powdered plutonium gets out into the areas. So that was just the thought. Thank you.

Correspondence #58-35

MR. GOODMAN: Thank you.

L. Watchempino, looks like your hand is raised again, so please go ahead.

L. WATCHEMPINO: Yes, and the same thing is happening to me. As people speak, I'm thinking of more issues. **[Comment 58-35-1][Response 17.12]** I think that at least one accident scenario needs to be analyzed in the environmental impact statement, because, as people have noted, it only takes one release of powdered plutonium to the environment, and it will have a devastating impact that really there is no way to clean it up. And it will just be the death of a community, an ecosystem, or wherever it is dispersed.

And so that should be analyzed. I know in the past, in different environmental impact statements that I've reviewed, DOE has said that the chance of an accident is so minimal that it wasn't analyzed. But at -- at least one accident scenario needs to be fully analyzed in this environmental impact statement.

Correspondence #58-36

MR. GOODMAN: Thank you.

And Joni Arends, your hand is raised, so please go ahead and unmute yourself.

JONI ARENDS: Thank you, Dave. I -- so before last fall, I saw three WIPP trucks traveling on New Mexico highways at one time. **[Comment 58-36-1][Response 23.2]** And I know that in the WIPP final EIS, it's -- the analysis was of one truck being involved in an accident. We've raised this issue over the years about multiple WIPP trucks traveling to WIPP, basically in a convoy. And that hasn't been analyzed.

So we need some kind of assurances if this proposal goes forward, that the trucks will not be traveling in a convoy unless there is analysis that looks at an accident, a worst case scenario accident of three trucks or two trucks or three trucks in a row. But given that I've seen three trucks in a row, it should include three trucks in a convoy.

And I believe other people on this call have seen those -- those convoys before. It's very disturbing to see them because we know that they haven't been properly analyzed. **[Comment 58-36-2][Response 9.7]** And again, I reiterate the need -- the need for a programmatic EIS before this -- before anything more happens at this point in time. Thank you.

Correspondence #58-37

MR. GOODMAN: Thank you.

Diane Brown, you can go ahead and unmute yourself.

DIANE BROWN: Hi, Diane Brown. I am in Santa Fe, New Mexico, and appreciate everything everybody said. My I'm a little tense, and I'm a little upset. I wonder -- I mean, I -- first, let me say I know the NNSA is full of professionals who are doing their job. Their job is not to end war, but the -- the job is to decommission nuclear heads and bury this somehow, the nuclear waste, as I understand it. **[Comment 58-37-1][Response 9.5]** My concern is that we're going to just be footnotes in the EIS, the environmental impact statement, and I worry if that means all this was for naught.

So I started looking up some of these things on the internet, and I see the National Nuclear Security Administration, NNSA, is a semi- autonomous department of the Department of Energy. And I'm wondering if we need to raise our voices to a larger level so we won't be footnotes, like not only our governor or maybe our President of the United States, maybe Jennifer M. Granholm, who's the Secretary of Energy.

And I see on the website for DOE, Department of Energy, the core mission is: promoting American leadership in scientific discovery, maintaining the nuclear deterrent and reducing nuclear danger, and remediating the environmental harms caused by legacy defense programs.

[Comment 58-37-2][Response 26.1] And I think when it comes to the environmental harms caused to people and the land, the legacy is here in New Mexico. Navajo people have been dumped on several times since the '50s, and that's certainly gone stream to others. The people in southeast New Mexico, and I heard ma'am from -- Kathy Sanchez from San Ildefonso Pueblo near Los Alamos, all speaking. And there's others who have spoken so well.

But New Mexico and its people have been the legacy harm. New Mexico needs to say no to this. New Mexico is trying hard to say no to this. Enough nuclear harm. There was a woman who sees the trucks go by her house twice a day to WIPP. That's a place where there's been an earthquake in the last six months, if not sooner. There's fracking and gas going on. It's already a nuclear environmental wreck.

So I again repeat, New Mexico says no, and the Department of Energy needs to remediate the environmental harms caused by a legacy of defense programs. We're done.

Correspondence #58-38

MR. GOODMAN: Thank you for your comment.

Would anybody else like to raise their hand? I'm not seeing any in the queue right now.

L. Watchempino, please go ahead.

L. WATCHEMPINO: Thank you. **[Comment 58-38-1][Response 27.3]** And thanks for the earlier comment because I did not state that I live in the vicinity of the Grants Uranium

Correspondence

Mining District in northwestern New Mexico, and we are suffering legacy impacts, people that live downwind and downstream in the area from that earlier uranium mining period. And we -- there were at least close to 100 uranium mines and 5 uranium mill processing sites.

And to this day, we're still trying to work with the Environmental Protection Agency on ways to alleviate some of the -- some of the harm, the damage to the environment, to the air, to the soil, to groundwater plumes of contamination that are moving downstream. And it's -- hasn't really been very fruitful because once radioactivity is released, it just cannot be contained, whether it's in a groundwater plume, whether it's in the air, or whether it's in the soil.

[Comment 58-38-2][Response 24.2] So I just want to stress, yes, there are many legacy impacts throughout New Mexico that are harming us and continue to harm us, our health, our -- our wellbeing, and our communities. And we just should not be producing any more plutonium for pits, for weapons, because we're having difficulty cleaning up the legacy left behind at all stages of the nuclear fuel chain. So it's just not a safe enterprise. And I hope that the National Nuclear Security Administration really does engage in eliminating these sources, these dangerous sources, of radioactivity because they're harming us.

And New Mexico has suffered enough harm already with legacy impacts. **[Comment 58-38-3][Response 8.3]** And I'm sure we will be seeing some more from the WIPP site. You know, there needs to be a thorough seismic analysis. There needs to be a thorough accident scenario investigation. **[Comment 58-38-4][Response 24.2]** And I hope that the environmental impact statement considers that there could be simultaneous production of new plutonium pits as they are carrying out a disposition program. Thank you.

Correspondence #58-39

MR. GOODMAN: Thank you again.

I'm not seeing any other comments in the queue right now. I do see a comment from Dan Solitz, who we have not been able to successfully hear, who asks: **[Comment 58-39-1][Response 8.2]** how many cubic meters of WIPP capacity will this down blending and decommissioned down blending facilities consume?

Correspondence #58-40

Are there any other folks that would like to get in the queue? Jean Nichols, please go ahead.

JEAN NICHOLS: Yes, you know, **[Comment 58-40-1][Response 23.4]** I just want to say also that I think in the EIS, we need a -- a whole, you know, plan for -- for the emergency response if there is -- if there is an accident. Even if there's just an accident on the road, but it doesn't release anything. But have, you know, have the fire departments, have the emergency EMS, has any of that been -- been worked out? Like, what's what's the scenario for a -- for a release?

[Comment 58-40-2][Response 17.12] And -- and especially, you know, if there's a release of the oxide, the powdered plutonium, like they said, if there's a release in a building, the building has to be knocked down. It can't be remediated. Well, this is ridiculous. I mean, that's insane to be dealing with stuff like that, that is that highly dangerous.

And who are the people who are going to be at -- at Los Alamos or wherever, you know, turning - - turning the plutonium into -- well, for one thing, it's not, you know, **[Comment 58-40-3][Response 8.1]** WIPP was supposed to be for transuranic waste. It wasn't supposed to be for high grade waste, and it wasn't also supposed to be for waste from all over the country. So that's wrong. Thank you.

Correspondence #58-41

MR. GOODMAN: Thank you.

Anybody else that would like to get in the queue, you are welcome to do so now.

And Dan also says: **[Comment 58-41-1][Response 27.10]** please address the continuing need to refurbish pits as decay products reduce explosive yield.

So I am not seeing any other commenters in the queue right now, so I'll give you the opportunity to think about doing that. But I will go ahead and thank everybody for making their comments tonight. It's kind of a crucial part of the -- the draft EIS, public input. And as stated before, we will be responding to all comments received in this forum and via any of the methods that you can see on the screen there if you're on Zoom, in the final EIS.

Again, if you were unable to make a comment in this forum, or if you made a comment in this form and would like to make other comments, please feel free to do so by phone, mail, or email. Again, this slide is showing that the end of the comment period is February 14th, but that is or will soon be extended to March 16th.

So with that, I will thank everybody for participating tonight and for your time and your interest in the draft surplus plutonium disposition EIS, and definitely appreciate the time that you took to attend the meeting tonight. And I will thank you and turn things over to Virginia to close us out.

Correspondence #59

From: Jill Cowley
Sent: Wednesday, March 8, 2023 4:31 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Comments on DOE/EIS-0549 Surplus Plutonium Disposition Program

Maxine:

I am a resident of Eldorado in New Mexico, which is on the WIPP route. I attended meetings and submitted comments when WIPP was first established, and I am submitting a comment today.

[Comment 59-1][Response 23.5] The problem/issue with the whole project covered by DOE/EIS-0549 (Surplus Plutonium Disposition Program) -- and others like it- - is the need for transporting the plutonium. **[Comment 59-2][Response 7.5]** The 2018 decision to stop the MOX Fuel project based on a revised cost estimate is where this project went wrong -- my understanding is that this decision led to plans for more transport of these hazardous materials. Hazardous material such as surplus plutonium should be stored/buried/converted to less hazardous material on-site. Yes, this means more hazard to the community close to the original disposal site, but transport increases the hazard to

Correspondence

MANY communities. **[Comment 59-3][Response 23.2]** Even the remote chance of a transport accident of nuclear material is unacceptable given the potential to grievous harm to all life in the vicinity.

[Comment 59-4][Response 9.5] I know my comment is late in the game for this project and this EIS but please please consider this comment seriously for this and future projects.

Jill Cowley
voter in Eldorado, New Mexico

Correspondence #60

From: Kyle Marksteiner
Sent: Thursday, March 9, 2023 10:28 AM
To: SPDP-EIS@nnsa.doe.gov Subject: [EXTERNAL] comments

Hello, **[Comment 60-1][Response 9.5]** is there any way to see the list of public comments received prior to the submission date? thanks!

Visit us on Facebook at: <https://www.facebook.com/CityofCarlsbadGov/>

Kyle Marksteiner City of Carlsbad -Public Information Officer (575) 706-2324

Correspondence #61

From: Janet
Sent: Thursday, March 9, 2023 12:20 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Fwd: comments on surplus pu

Maxine Maxted at SPDP-EIS@NNSA.DOE.gov

Comments to the NNSA concerning the Disposition of Surplus Plutonium

Dear Ms Maxted,

[Comment 61-1][Response 23.2] It is the position of the Los Alamos Down wind Neighbors that nuclear materials should be trucked across out highways and transported on our railways as little as possible. On our highways and rail lines accidents are frequent and often severe. **[Comment 61-2][Response 7.5]** Nuclear materials including surplus plutonium should be disposed of close to where they are produced. **[Comment 61-3][Response 5.5]** To ship a potential 61.5 metric tons of surplus plutonium across the country from Pantex to Los Alamos to Savannah River and back to WIPP, mostly in a powdered form, puts countless communities at risk needlessly. Plutonium is one of the most toxic substances on earth and in a powdered form, in its most dangerous form.

[Comment 61-4][Response 5.5] As down winders from Los Alamos, we are very concerned about the proposed oxidation of surplus plutonium at Los Alamos National Laboratories (LANL). **[Comment 61-5][Response 24.2]** Two dangerous projects are being proposed for LANL: production of plutonium pits and oxidation of plutonium. Robert Alvarez, an award winning advisor to the National Security Administration on nuclear issues in the 1990s, has called the simultaneous enactment of these two projects at LANL 'a

potential bottleneck.'

Few of us in our downwind community believe that LANL can perform both of the delicate operations that these projects require safely.

[Comment 61-6][Response 5.5] If we look at LANL's track record in light of the Defense Nuclear Facilities Safety Board presentation made recently in Santa Fe, New Mexico, it is impossible not to suspect a high risk. The DNFSB recommended that the High Active Confinement Ventilation System at Los Alamos labs be replaced but instead the labs will only replace some of the components, meaning that there are weak links in the system with no guarantee that these weak links will be taken care of before plutonium oxidation begins. Contamination may not be confined to the labs but instead there is a risk that any release of contaminants will reach the outside air and eventually to the air we breathe. Also, the labs' safety system has been in place since 1978 and there has been no comprehensive reliant upgrade. So to conclude that there is no pathway for contaminants to reach us seems overly optimistic.

[Comment 61-7][Response 5.5] Pit production was halted a decade ago at LANL due to the inability of the labs to manufacture pits safely. Given this background, one would think that LANL would be taking to heart all recommendations of the Safety Board, but instead the usual pattern of meeting production deadlines, as the primary, immutable goal of the labs, prevails. Washington is not innocent when it comes to this deadly and dangerous practice. Fines for safety infractions remain low while rewards for meeting production deadlines remain high.

[Comment 61-8][Response 27.3] Our communities; Dixon, Ojo Sarco, La Joya and Chimayo have already been contaminated by the Cerro Grande Fire where hundreds of waste strewn acres at LANL were burned; the prevailing winds carrying that contamination to our communities and other communities nearby.

Members of the Dixon and Ojo Sarco (a valley directly above Dixon) communities attended a meeting with the New Mexico Environment Department in Ojo Sarco soon after the fire. These community members were told that there was Cobalt in their plums and Cesium in their broccoli but that the amount was below regulatory concern. Regulations are based on urban eating habits whereas in a rural setting families eat many plums when they become ripe, the same with broccoli.

There were other signs that we had been contaminated: Foals died after nursing (if young horses die after birth, they usually die before nursing.); goats the same; chickens stopped laying. As time went on, a Dixon Community member who was a vegetarian and ate mostly out of her garden, died of cancer and in a small community above Ojo Sarco, La Joya, at the exact elevation of the labs, cancer became rampant.

Though LANL determined that there was no significant contamination from the fire, LANL's studies contained several flaws. LANL used 'upwind' communities for a control in the study of 'downwind' communities. Though it is true that Dixon, Embudo, Ojo Sarco etc. lie in the prevalent SW to NE wind pattern, during the CG fire, the wind blew in a south by southeast direction for at least one day, making Cochiti, one of the 'control' sites also a 'downwind' site. Another flaw was the lack of independent lab work and analysis; another that individual radio nuclides which are admittedly associated with LANL such as Cesium 137 whose incidence did increase in some downwind communities after the fire is left unexplained.

Correspondence

[Comment 61-9][Response 22.1] Dixon, Ojo Sarco, La Joya and Chimayo are in Rio Arriba County. The demographics of Rio Arriba are that we are 71.3% Hispanic or Latino and that our average family median income is \$46,004 compared to the average US family median income of \$70,784. The first language of 58.3% of the population is other than English. So we are an Environmental Justice Community and as such, according to state and federal mandates, should be assessed and consulted before being further put at risk by more dangerous, potentially polluting projects.

[Comment 61-10][Response 15.3] According to the cancer death statistics presented in NNSA's DEIS on the Disposition of Surplus Plutonium as support for Los Alamos as a non polluter, cancer deaths in Los Alamos and Rio Arriba are below national averages. But the given tables are misleading as to the impacts of the labs on the health of down winders. Los Alamos County has the highest cancer incident rate in the state according to state statistics but due to the counties premium health care system, its cancer death rate lags behind other poorer counties. Rio Arriba County is a very large county, not all of which is downwind from the labs. To get a true picture of cancers cause by LANL, downwind communities must be examined in a standalone study.

[Comment 61-11][Response 7.3] NNSA does not cover all the alternatives to oxidation of surplus plutonium in its environmental impact statement. There is an alternative that would not put ours and countless other communities at high risk: that is immobilization of the surplus plutonium through vitrification. Immobilization is a proven technology. Why isn't it being considered by NNSA. Could it be cost? That once again our lives are being put at risk so that the nuclear industrial complex can obfuscate the horrific cost of making nuclear bombs and cleaning up the resulting mess, an activity that has now been declared illegal by the United Nations.

Paula Seaton and Janet Greenwald for

Los Alamos Downwind Neighbors

Box 485, Dixon, NM, 87527

The Commenters further request that these comments be included as part of the administrative record. Additional comments may also be submitted separately by members of this organization, its officers, and other interested citizens associated with the organization. We submit the following comments at this time in order to maintain our standing to challenge in a court of law a decision, which is found to be in violation of the NEPA.

Correspondence #62

From: Donna SWANSON
Sent: Tuesday, March 14, 2023 8:33 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Public comment, Plutonium waste

Public Comment:

[Comment 62-1][Response 5.5] I oppose the plan to ship Plutonium pits back and forth across our nation and then to WIPP. Can anyone say semi truck highway accident? How about train derailment? I think the cheapest solution to the problem of the unfinished nuclear science of nuclear waste disposal is not the best and only solution. Please do not

ship this stuff every direction across our nation and then deposit it against the wills of citizens into New Mexico. **[Comment 62-2][Response 7.4]** Find a safer way to dispose of plutonium waste.

[Comment 62-3][Response 27.4] I also know that South Carolina was paid a very large sum of money with the promise that their nuclear waste would be disposed in New Mexico some years ago. Did you ask New Mexican citizens about that?

Thank you for your time.

Donna Swanson
146 San Pedro Drive
Alamogordo, NM. 88310
505-250-6107

Correspondence #63

From: Dee Finney
Sent: Tuesday, March 14, 2023 5:55 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] powdered plutonium

Dear Sir/Madam, **[Comment 63-1][Response 9.3]** I am very concerned about the DOE's surplus plutonium plan. I feel more public comment is crucial. I am a public health nurse and certified national guardian living down wind from Los Alamos in the Embudo Valley. **[Comment 63-2][Response 23.2]** On a recent trip to Los Alamos I was very concerned at the level of traffic and high speed the many drivers maintained. Driving up and down the mountain is very precarious even at the most quiet part of the day, related to traffic. More than 10,000 people transverse the highway to Los Alamos every day. This area goes through Native American territory and through very sacred sites to this population. Further, if there is an accident, there is no emergency preparedness plan in place to alert people of the danger. An accident is very likely on this part of the highway related to the dangers of high speed drivers, adverse weather conditions and the mountain highway. There is virtually no place to pull over on parts of this highway and the safety issues that could occur while transporting this highly toxic and radioactive substance are unthinkable. Furthermore, there is only two hospitals close by and they are very small for the vast numbers of local citizens that would be impacted if there was an accident, a leak or any other untoward incident. I am imploring the DOE to look at all these issues very seriously. **[Comment 63-3][Response 5.5]** We already have a very dangerous situation with the national lab in this location. Fires, earthquakes, and natural disasters are going to impact our health and safety. We don't need additional dangers to impact us in our very remote part of New Mexico.

Thank you very much for your consideration,

Dee Finney, RN, Certified National Guardian

Correspondence #64

From: Greg P
Sent: Wednesday, March 15, 2023 6:28 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Surplus plutonium disposal plans

Correspondence

Hello. I hope you, the reader of these comments, are well and in good spirits.

[Comment 64-1][Response 9.6] I am convinced that the Department of Energy's plans for processing nuclear weapons triggers or "pits" fail to meet requirements set in law. Therefore, DOE must withdraw their draft Surplus Plutonium Environmental Impact Statement for public commentary; they must bring the site-wide environmental impact statements up to date - make them current - for each of the four affected sites, and only then solicit public comments.

The norm for completing a SWEIS is every 10 years. We are far out of date, then, with SWEISs for the four main sites covered in DOE's plans. An EIS for the Pantex site (outside Amarillo, Texas) was done 27 years ago, and not since; with the WIPP site east of Carlsbad, New Mexico we are 33 years out of date on an EIS. Los Alamos National Laboratory is about five years out of date with their EIS.

I urge decision-makers to withdraw the Surplus Plutonium Environmental Impact Statement draft until managers of the four main sites involved - Pantex, Savannah River, Los Alamos National Laboratory, and WIPP - have brought SWEISs up to date for their respective sites.

Thank you kindly for your attention to these comments.

Gregory Corning
President, Veterans For Peace Santa Fe, New Mexico chapter

Correspondence #65

From: Kajumba, Ntale
Sent: Wednesday, March 15, 2023 3:57 PM
To: SPDP-EIS@NNSA.DOE.gov
CC: Long, Larry; Buskey, Traci P.; Hayden, Keith
Subject: [EXTERNAL] EPA's Comments on Surplus Plutonium Disposition DEIS
Attachments: Surplus Plutonium Disposition DEIS.pdf

Good evening.

Please see EPA's comments on the draft EIS for Surplus Plutonium Disposition Project. Let us know if you have any questions.

Ntale

Ntale Kajumba
NEPA Section Chief
Strategic Programs Office
U.S. EPA Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
Tel: (404) 562-9620
Email: Kajumba.ntale@epa.gov

##Note: Correspondence includes letterhead for the United States Environmental Protection Agency.##

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Maxcine Maxted
NEPA Document Manager
U.S. Department of Energy/NNSA
Office of Material Management and Minimization
Savannah River Site
P.O. Box A Bldg.
730-2B, Rm. 328
Aiken, South Carolina 29802

RE: EPA Comments on the Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program DOE/EIS-0549, CEQ# 20220186

The U.S. Environmental Protection Agency (EPA) Regions 4 and 6 have reviewed the Draft Environmental Impact Statement (DEIS) in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The CAA Section 309 role is unique to EPA. It requires EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The National Nuclear Security Administration (NNSA) prepared this DEIS to evaluate the potential environmental impacts from the disposition of surplus plutonium, both pit and non-pit. The DEIS evaluates two alternatives: the Preferred Alternative and the No Action Alternative. The Preferred Alternative involves diluting and disposing of 34 metric tons (MT) of surplus plutonium. According to the DEIS, surplus plutonium will be converted to plutonium oxide, diluted to prevent plutonium recovery, and the resulting waste will be disposed in an existing Waste Isolation Pilot Plant (WIPP) facility. NNSA also considered four sub-alternatives, that differ based on location and capabilities. These locations, including Savannah River Site in South Carolina, Pantex Plant in Texas, Los Alamos National Laboratory in New Mexico, Y-12 National Security Complex in Tennessee, and WIPP facilities in New Mexico, would require new, modified, or existing capabilities.

Based on our review of the DEIS, we have enclosed technical comments and recommendations regarding water resources, environmental justice, air quality, and climate change for your consideration (See Enclosure). We request that the technical comments provided in this letter be addressed in the Final EIS.

The EPA appreciates the opportunity to review the DEIS. If you have any questions regarding our comments, please contact Mr. Larry Long of the NEPA Section at (404) 562-9460, or by e-mail at long.larry@epa.gov.

Sincerely,

Ntale Kajumba
Chief, NEPA Section
Strategic Programs Office

Enclosure: Technical Comments

ENCLOSURE
EPA Technical Comments on the Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program
DOE/EIS-0549, CEQ#20220186

Water Resources

[Comment 65-1][Response 9.6] Section 3.0 Affected Environment provides a general discussion for water resource issues for the Los Alamos National Laboratory (LANL) and the Savannah River Site (Sections 3.2.6.3 and 3.3.3.1 respectively). However, the Y-12 National Security Complex, Pantex Plant and the WIPP does not compare all these sites using the same or similar level of analysis.

[Comment 65-2][Response 12.4] In Section 3.2.3.2, the quality of groundwater in the region near LANL is described. It is noted that groundwater samples have indicated the presence of elevated concentrations of various contaminants of concern including (but not limited to): hexavalent chromium, total nitrogen, iron, radionuclides, metals, high explosives, VOCs, and more. EPA understands that LANL does in fact monitor for plutonium isotopes (238 Pu and 239/240 Pu) in groundwater. However, this is not mentioned or addressed in the Draft EIS.

Recommendations

[Comment 65-3][Response 9.6] Consider a comparable level of analysis for each proposed site location (i.e., more in-depth analysis). **[Comment 65-4][Response 12.3]** Until a locality or combination of locations are selected, conservative assumptions should be considered regarding the evaluation of water resources. The EPA also recommends that the Final EIS consider the following:

* **[Comment 65-5][Response 10.3]** Describe measures that will be taken to revegetate areas disturbed by construction and implementation of new surplus plutonium processing facilities. Include information regarding NNSA post-revegetation monitoring strategies.

* **[Comment 65-6][Response 12.4]** The lead agency(s) include a description how LANL monitors the groundwater for plutonium contamination, and how plutonium interacts with sediments and the geology of the area. In addition, the EPA recommends NNSA include a detailed description of how groundwater monitoring will be conducted. Monitoring is recommended to identify potential plutonium contamination for all proposed site locations and as a means of identifying how plutonium interacts with sediments and the geology of the area.

* **[Comment 65-7][Response 12.2]** Sub-alternative locations may require state permits for water quality and with the United States Army Corps of Engineers (USACE) for Clean Water Act (CWA) 404 permits, and these issues should be clearly addressed in the Final EIS.

* **[Comment 65-8][Response 14.1]** NNSA may want to consider the effects on wetlands and streams affected and explain USACE's definition of "least environmentally damaging practicable alternative" (LEPDA) to ensure that the LEPDA requirements are achieved for the selected site or a combination of sites.

o **[Comment 65-9][Response 10.2]** Avoidance and minimization - steps should be taken to minimize impacts, such as modifying the facility footprints or alternative locations for the proposed access road where practicable.

o **[Comment 65-10][Response 14.2]** Compensatory mitigation - a discussion on specific mitigation options (i.e., mitigation banks, in-lieu fee, permittee responsible) for wetland and stream types occurring in the project area is recommended in the Final EIS.

* **[Comment 65-11][Response 12.4]** A detailed description of how groundwater monitoring will be conducted to identify potential plutonium contamination, and how plutonium interacts with sediments and the geology of the area is recommended in the Final EIS.

* **[Comment 65-12][Response 9.6]** The Final EIS should treat each alternative location comparably (with more in-depth analysis) and **[Comment 65-13][Response 12.2]** consider in detail state and federal water resource permitting requirements to compare and evaluate the merits of each alternative more appropriately.

Environmental Justice (EJ)

[Comment 65-14][Response 22.1] Human Health, Cultural and Socioeconomic information is provided for each of the sub-alternative locations. These sections of the report focus mainly on demographics and cultural resources. The DEIS provides mostly non-descriptive charts that do not explain how the decision process was performed or what evaluative tools were used to come to the stated impact conclusions.

Section 2.1.1.2.2; Pg. 2-7, 2-8, The EIS Surplus Plutonium Disposition Program may have minimal impacts to communities located near the Los Alamos National Laboratory in New Mexico and the Pantex Plant in Texas, the Savannah River Site in South Carolina, and Y-12 National Security Complex in Tennessee. Most of the planned operations will be using an existing footprint at all facilities while new infrastructure will be confined within existing boundaries.

Recommendation:

The FEIS should include a more in-depth discussion on how NNSA defines the terms minimal and moderate impacts to communities with EJ concerns. The EPA recommends that the Final EIS include an explanation regarding how NNSA concluded that minimal impacts to surrounding communities, including communities with EJ concerns, are anticipated. For the sub-alternative locations, plans to meaningfully engage local communities throughout the NEPA process should be discussed to help identify and assess potential benefits and burdens associated with the short-and long-term aspects of the proposed project. We further recommend the discussion include adaptive and innovative approaches to maximize public outreach and community involvement during the project. Please continue efforts to share information with the public and make that information available in both English and Spanish, as needed (Appendix F).

[Comment 65-15][Response 9.3] The EPA recommends a continued effort to adhere to all safety regulations and to make that information available to the public including people of color and low-income populations within the operational areas.

Climate Change

[Comment 65-16][Response 13.1] A brief metrology is provided for each sub-alternative location. However, the discussion does not include the potential impacts of future climatological extreme events on planned facilities. Many of the site locations described as sub-alternatives are locations where climate change could actively impact the facility. Future potential severe weather events are anticipated to occur at greater frequency and magnitude due to the impacts of climate change over the next several years. These effects increase the potential for local flooding, tornados, and increase the potential of fate and transport of contaminant releases to the surrounding area via groundwater infiltration.

Recommendations

The EPA recommends including a more in-depth discussion in the Final EIS of potential climate change impacts that could affect the sub-alternative locations and surrounding communities. The Final EIS should include a more in-depth discussion of the indirect and cumulative effects associated with severe weather events that could potentially impact local and down-stream communities as well. There should be a discussion on preventive measures that mitigate potential impacts to these communities. Specifically, the EPA

Correspondence

recommends that the NNSA consider in its decision-making: (1) the ongoing and long-term risks posed by climate change where nuclear facilities and associated structures are placed, (i.e., floodplains), and (2) if such infrastructure is in areas with elevated risk of damage due to climate change, investments should be made to increase the resilience of the facility infrastructure. The NNSA should also consider requiring applicants to develop climate adaptation plans informed by the U.S. Fourth National Climate Assessment. Additionally, the EPA recommends that the NNSA consider in the NEPA analysis potential climate impacts, including, but not limited to, drought, high intensity precipitation events, and increased fire risk.

Correspondence #66

From: Steve Kopp
Sent: Wednesday, March 15, 2023 10:58 PM
To: SPDP-EIS@NNSA.DOE.GOV
Subject: [EXTERNAL] Comments on the Draft SPDP EIS

My name is Steve Kopp. I am a Carlsbad resident and the recently retired Navarro Program Manager for the Carlsbad Technical Assistance Contract. Under that contract we provide technical oversight over WIPP operations for the DOE Carlsbad Field Office and we perform generator site audits at DOE sites, like LANL, shipping TRU waste to WIPP.

[Comment 66-1][Response 8.6] DOE has decided to dispose of surplus plutonium from the US nuclear stockpile. This surplus plutonium will be processed, adulterated and appropriately disposed as contact handled TRU waste at WIPP. The resulting waste can then be legally and safely disposed at WIPP consistent with the WIPP permit and the WIPP WAC. There is adequate capacity at WIPP to dispose of all of the waste from this waste stream. The taxpayers have already invested billions of dollars constructing WIPP and it should be filled to capacity. For mixed TRU, the hazardous waste components can be safely and compliantly disposed at nearby NTS or Envirocare.

During the hearing on this EIS, most of the comments focused on whether or not the waste should come to WIPP. With all due respect, that is not the issue being considered. The issue under consideration is selecting the treatment and adulteration pathway for the excess plutonium that will be coming to WIPP.

[Comment 66-2][Response 6.3] The no-action alternative is not a viable alternative. The plutonium has been declared surplus, since the MOX option was eliminated and the material must be disposed of as waste. When the material is processed, adulterated and disposed of we will be honoring our non-proliferation agreements and treaties and it cannot be used by us or others for nuclear weapons.

[Comment 66-3][Response 5.4] The LANL only sub alternative is the best choice because it will cause the least environmental impact and is the safest and most cost-effective of the available alternatives. It is also the most secure from a nuclear safeguards perspective due to the fact that all of the weapons-grade plutonium will go to one location for both processing and adulteration. Finally, the adulterated waste will then be shipped a shorter distance from LANL to WIPP for final safe disposition.

Thank you for considering my comments on this EIS.

Respectfully,

Steve Kopp

Correspondence #67

From: pumbanm@cybermesa.com
Sent: Wednesday, March 15, 2023 2:41 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Draft EIS Comments (SPDP EIS)

Ms. Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
P.O. Box A, Aiken, SC 29802

Via email to SPDP-EIS@nnsa.doe.gov

Comments on the Draft Environmental Impact Statement for NNSA's Surplus Plutonium Disposition Program (SPDP EIS) (DOE/EIS-0549):

As a 32-year Los Alamos Laboratory employee who worked in the nuclear materials safeguards area at the Lab, and has toured the WIPP storage facility and has first hand understanding of it's initial mission, **[Comment 67-1][Response 23.2]** my concern is basically two-fold. First, the risk of transporting highly refined Pu long distances far outweighs the benefits of moving that material away from where it's currently at. **[Comment 67-2][Response 7.3]** The solution, in my view, is to mix the Pu into a ceramic matrix for stability, and keep it stored in place, on site. **[Comment 67-3][Response 8.1]** I also believe the imperative should be to limit WIPP to the disposal of low level radioactive waste, as was the initial intent. WIPP was never supposed to be significantly expanded in size, much less used for extended storage/disposal of high energy/level radioactive waste.

[Comment 67-4][Response 7.3] In Summary: Embed the excess Pu in a ceramic matrix and keep this stabilized configuration of material stored on site where the plutonium is currently at. **[Comment 67-5][Response 8.1]** And limit WIPP's use to the type and quantity of material it was initially designed for. **[Comment 67-6][Response 23.4]** A train derailment, or truck crash resulting in the release of high concentrations of plutonium into the environment would be devastating.

[Comment 67-7][Response 7.3] I respectfully submit that stabilizing the excess Pu by mixing it into a ceramic matrix, doing it on-site and keeping it in place, is what makes the most sense, both in terms of the long-term cost/benefit, and safety.

Charles M. Montano
32-year LANL Employee (Retiree)

207 S. El Rancho Rd.
Santa Fe, NM 878501
505-470-4273

Correspondence

Correspondence #68-1

From: Hartstebbins, Maggie, ONRT
Sent: Wednesday, March 15, 2023 3:57 PM
To: SPDP-EIS@nnsa.doe.gov
CC: Girard, Kate, ONRT; wgrantham
Subject: [EXTERNAL] Comments on the DOE NNSA Draft Environmental Impact Statement for the Surplus Plutonium Disposition Program, DOE/EIS-0549
Attachments: NMONRT comments on draft EIS for the NNSAs Surplus Plutonium Disposition Program 3.15.23 final 1651.pdf

To: Ms. Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration,
Office of Material Management and Minimization

Dear Ms. Maxted:

On behalf of the New Mexico Office of the Natural Resources Trustee (ONRT), I have attached comments on the Draft Environmental Impact Statement (EIS) regarding surplus plutonium at Los Alamos National Laboratory (LANL) and the Waste Isolation Pilot Plant (WIPP).

Please acknowledge receipt.

Respectfully,

-Maggie Hart Stebbins

Maggie Hart Stebbins
New Mexico Office of the Natural Resources Trustee
www.onrt.state.nm.us

##Note: Correspondence includes letterhead for the State of New Mexico Office of Natural Resources Trustee.##

March 15, 2023

Ms. Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration,
Office of Material Management and Minimization
P.O. Box A, Aiken, SC 29802

Submitted electronically to: SPDP-EIS@nnsa.doe.gov

RE: Comments on the draft Environmental Impact Statement for the National Nuclear Security Administration's Surplus Plutonium Disposition Program, DOE/EIS-0549

Dear Ms. Maxted:

On behalf of the New Mexico Office of the Natural Resources Trustee (ONRT), attached please find our comments on the Draft Environmental Impact Statement (EIS) regarding surplus plutonium at Los Alamos National Laboratory (LANL) and the Waste Isolation Pilot

Plant (WIPP).

Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), the Governor of New Mexico has designated me as the trustee for natural resources within the boundaries of our State and for those resources belonging to, controlled by, or appertaining to the State. In that capacity I also serve as the administrative head of ONRT.

Under CERCLA section 107(f), subpart G of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), natural resource trustees have a broad mandate to protect and restore resources under their jurisdiction. In light of our trustee responsibilities, we offer these comments expressing our concerns about the U.S. Department of Energy (DOE) plan for surplus plutonium disposition.

Thank you for your consideration.

Respectfully,

Maggie Hart Stebbins
Trustee

Concerns with the Alternatives Presented in the Draft SPDP EIS

We have the following comments and concerns with regards to the presented and analyzed alternatives:

[Comment 68-1-1][Response 9.6] 1. A reasonable range of alternatives was not considered. NEPA (U.S. Code (USC) 42 Section 4332 et seq.) requires federal agencies considering actions that could affect the quality of the human or natural environment to "*study, develop, and describe appropriate alternatives to recommended courses of action.*" Further, the Council on Environmental Quality's (CEQ's) NEPA implementing regulations (40 CFR Part 1502.14) require federal agencies to "*evaluate reasonable alternatives*" to the federal action under consideration.

Given that the Draft SPDP EIS only evaluates two alternatives, a no action and a preferred alternative (grouping four sub-alternatives under the preferred alternative option), reasonable and appropriate alternatives are not presented in the EIS. Further, the sub-alternatives presented under the "preferred" alternative differ substantially in environmental and social impacts, and thus should be identified as separate alternatives. As it is currently written, if NNSA chooses the "preferred alternative" it is not possible to know which sub-alternative this entails, therefore, there is no way for the state of New Mexico (nor the general public) to properly react to and prepare for a specific sub-alternative. The EIS should be revised, with each of the four sub-alternatives evaluated as a separate stand-alone alternative.

[Comment 68-1-2][Response 7.5] 2. A sub-alternative for conducting all operations at the Pantex facility in Amarillo, Texas, was only briefly explored and then dismissed in the Draft SPDP EIS. The 34 metric tons (MT) of plutonium that is the focus of the disposition program originates from Pantex; having this option as a sub-alternative would avoid many risks associated with transportation of plutonium. The primary reasons given for not considering this option are the needs to increase staffing at Pantex and build new facilities (p. 2-25, NNSA 2022). However, the preferred sub-alternatives also require increased staff and construction of facilities at Los Alamos National Laboratory

(LANL) and/or the Savannah River Site (SRS). A full analysis of an All-Pantex alternative would allow a comparison of the impacts, benefits, and costs of the other alternatives relative to this option.

[Comment 68-1-3][Response 5.1] 3. Sufficient information has not been provided on how the analyses in the 2015 Supplemental (13.1 MT plutonium), which the Draft SPDP EIS relies upon, were adjusted to account for the larger volume of plutonium (34 MT plutonium). The Draft SPDP EIS states that it is tiered off the 2015 EIS (NNSA, 2015).

DOE 10 CFR Part 1021.210 states that when DOE "uses a broad decision (such as one on a policy or program) as a basis for a subsequent narrower decision (such as one on a project or other site-specific proposal), DOE may use tiering (40 CFR 1502.20) and incorporation of material by reference (40 CFR 1502.21) in the NEPA review for the subsequent narrower proposal." However, CEQ NEPA regulations at 40 CFR Part 1502.21 specifies that "If the incomplete but available information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives, and the overall costs of obtaining it are not unreasonable, the agency shall include the information in the environmental impact statement."

In multiple sections in the Draft SPDP EIS, including the human health evaluations in Appendix D and Appendix E, the reader is referred to methodologies and analyses in the 2015 Supplemental EIS. However, these appendices do not provide any detail about changes in calculations to account for the larger amount of plutonium analyzed in the Draft SPDP EIS, as compared to the 2015 Supplemental EIS. Thus, the presented information is incomplete, and additional information is essential to make a reasoned choice among alternatives. To ensure that the Draft SPDP EIS includes a sufficient analysis of the impacts associated with the disposition of the larger volume of plutonium, the Draft SPDP EIS should be revised to explain changes in calculations made from the 2015 Supplemental EIS.

Concerns With Environmental Justice and Lack of Consultation

We have the following comments and concerns with regards to environmental justice and a lack of consultation in preparing the Draft SPDP EIS:

[Comment 68-1-4][Response 22.1] 1. Minority and Tribal populations were not appropriately identified. The approach relied upon in the SPDP draft EIS to identify these populations covers relatively large geographic regions that mask the presence of minority and Tribal populations, and the radii of impact considered do not accurately reflect the area and populations that would be most affected by the project. The relied upon approach in the Draft SPDP EIS should be revised to accurately identify minority and Tribal populations, and then an analysis of how the actions will impact identified minority and Tribal populations should be conducted.

In accordance with CEQ guidance (CEQ, 1994) and Executive Order 12898, meaningfully greater minority populations should be identified where either the minority population of the affected area exceeds 50 percent, or the minority population in the affected area is meaningfully greater than the minority population within the general population. The Draft SPDP EIS identifies the percentage of the population who identify as minority within radial distances of 5, 10, 20, and 50 miles surrounding LANL, and bases its determination that there is not a meaningfully greater minority population (>50%) in the surrounding region on this approach. However, the Draft SPDP EIS also examines populations at the block group-level of analysis, which is the scale typically used in an analysis when the locations of

the impacts or exposures are known, as is the case here. The results of the block analysis suggest that there are more than 50 percent of block groups in the 50-mile radius that contain meaningfully greater minority populations (p. 3-34, NNSA 2022), yet the Draft SPDP EIS unexplainably does not acknowledge that this is grounds for further analysis of impacts to the minority populations.

Further, according to the 2016 Federal Minority Interagency Working Group on Environmental Justice & NEPA Committee (the "Working Group"), populations can be unevenly distributed and/or reside in clustered communities. Therefore, selecting a geographic unit of analysis without sufficient justification may portray minority population percentages inaccurately by artificially diluting their representation within the selected unit of analysis. To sufficiently identify pockets of minority populations, the Working Group recommends that agencies may wish to supplement census data with local demographic data, including data provided by the community and Tribes, which can improve an agency's decision-making process. The Draft SPDP EIS should be revised to be consistent with these recommendations.

Once populations with EJ concerns are identified, it is necessary to perform an analysis of how the project or federal actions will impact these populations, specifically, and if any high and adverse effects of the project would disproportionately impact communities with EJ concerns; the Draft SPDP EIS did not do this. The EIS should be revised to include this type of analysis.

[Comment 68-1-5][Response 22.1] 2. The EJ analysis conducted was not meaningful, specifically, it did not identify potentially affected populations along the transportation routes. A meaningful analysis did not occur in the SPDP Draft EIS, as communities along transportation routes to LANL and to WIPP were not examined. For example, the trucks transporting the plutonium from the Pantex facility will have to pass through Pueblo lands to access LANL, and therefore, transportation in and of itself will disproportionately affect Puebloan peoples within New Mexico. An appropriate environmental justice analysis should use geographic areas that are consistent with how populations are potentially affected or exposed from the project or federal action, and for transportation routes, this would be a linear affected area, assessing the populations in a certain buffer from the route. A circular radius of distances from 5 - 50 miles around LANL is not an applicable affected area that is relevant to the impacts that could potentially fall on populations in proximity to the transportation routes.

[Comment 68-1-6][Response 22.1] In summary, the EJ impact analysis concluding that there are "No disproportionately high and/or adverse impacts on minority or low-income populations affected by activities at either the LANL or SRS sites are expected" (p. 2-34, NNSA 2022) relies on a flawed assessment identifying communities with EJ concerns and is without basis, given a meaningful EJ analysis was not conducted.

[Comment 68-1-7][Response 9.1] 3. A consultation with ONRT was not conducted during preparation of the Draft SPDP EIS. NNSA failed to comply with the Department of Energy (DOE)'s NEPA regulations at 10 CFR Part 1021.215 which state that applicants should:

"Consult with appropriate Federal, state, regional and local agencies, American Indian tribes and other potentially interested parties during the preliminary planning stages of the proposed action to identify environmental factors and permitting requirements"

Further, CEQ NEPA regulations at 40 CFR Part 1506.2 specify cooperation to the "fullest

extent practicable with state, Tribal, and local agencies to reduce duplication between NEPA and comparable requirements, including through use of studies, analysis, and decisions developed by State, Tribal, or local agencies."

Several sub alternatives involve use and/or expansion of facilities located in the state of New Mexico, specifically those located at LANL and at WIPP. ONRT has not been consulted regarding the potential impacts to natural resources and the services they provide at these facilities. Further, ONRT has not been asked for any information, studies, analyses, or decisions on how these activities may impact natural resources and the human environment, despite the fact that the state manages these resources. The lack of consultation and cooperation with the state of New Mexico is in contradiction of the DOE and CEQ NEPA regulations.

[Comment 68-1-8][Response 9.2] 4. Tribal consultations with New Mexico Pueblos in the area surrounding LANL were not conducted during preparation of the Draft SPDP EIS. Tribal Consultations were not performed during preparation of the Draft SPDP EIS, in contradiction of NEPA regulations, multiple Executive Orders, and U.S. Department of Energy (DOE policy). Tribes were provided with an overview of the Draft SPDP EIS shortly prior to its public release, but this does not constitute a formal consultation, nor is it in keeping NEPA provisions described below.

Several of the sub alternatives include physically expanding current operations at LANL and include travel to and from LANL along routes that cross and/or are adjacent to Pueblo lands within New Mexico. The draft EIS states that there would be no impact on cultural resources during operations because the LANL Cultural Resources Management Plan (CRMP) has controls in place to minimize or mitigate impacts on resources during operations (p. 2-31, Table 2-9, NNSA 2022). However, NNSA did not confirm this through consultation with local Pueblos. Furthermore, the Draft SPDP EIS does not consider how the alternatives will affect natural resources used by Pueblo members within accessible areas on the LANL facility and in the surrounding area, for traditional hunting, gathering and ceremonies.

In neglecting to consult with Tribes, NNSA failed to comply with NEPA regulations, multiple Executive Orders and DOE policy in developing this Draft SPDP EIS, which state that consultation should occur, and early in the process (not after the fact):

* As noted above, DOE NEPA regulations at 10 CFR Part 1506.2 and CEQ NEPA regulations at 40 CFR Part 1506.2 specify consultation and cooperation with Tribes early in the process and to the fullest extent practicable.

* Additionally, Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, requires consultation and coordination with Native American Tribes prior to taking actions that affect federally recognized Tribal government, as does Section 8 of Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities.

* Further, DOE Order 144.1, (p. 9 DOE 2009) requires DOE to consult with Native American Tribes prior to taking any actions that may impact traditional and cultural lifeways and natural resources.

In summary, the lack of consultation and cooperation with New Mexico Pueblos is in contradiction with DOE and CEQ NEPA regulations, EOs 13175 and 13985, and DOE order 144.1. [Comment 68-1-9][Response 19.1] Further, the Draft SPDP EIS incorrectly claims minimal or no impacts to cultural properties (p. 2-31, Table 2-9, NNSA 2022) without having researched or consulted with potentially affected Pueblos.

Concerns with Impacts Analyses

Natural Resource Impacts

[Comment 68-1-10][Response 5.1] The Draft SPDP EIS did not adequately assess the risk of contamination of New Mexico's natural resources, including geologic and soil resources, water resources, and biological resources, due to operations at LANL under the preferred alternative:

[Comment 68-1-11][Response 11.1] - The geology and soils analysis was focused solely on determining whether the LANL area is seismically active, and the amount of soil that would be physically disturbed as a result of construction activities. Historic and on-going operations at LANL have left a legacy of contamination across the facility. The Draft SPDP EIS should also assess the potential risk of contamination due to potential spills and releases during operations of the preferred alternative.

[Comment 68-1-12][Response 12.1] - Similarly, no analysis of potential impacts to water resources was conducted; the Draft SPDP EIS stated that this was not necessary because industrial and sanitary discharges to surface water are already regulated under the National Pollutant Discharge Elimination System (NPDES) permit NM0028355 (EPA 2022). However, the historic and ongoing operations at the site have resulted in contamination of the state's water resources (surface water and groundwater). This includes recent releases. For example, seven exceedances of effluent concentration limits occurred at LANL NPDES outfalls in 2020, including five chlorine exceedances arising from equipment failure. Therefore, the Draft SPDP EIS should analyze the risk of potential releases and spills, and any impacts on the state's water resources.

[Comment 68-1-13][Response 14.3] - Finally, the analysis of impacts to biological resources was limited to federally threatened and endangered species, including southwestern willow flycatcher (*Empidonax traillii extimus*), the Jemez Mountains salamander (*Plethodon neomexicanus*), and the Mexican spotted owl (*Strix occidentalis lucida*). The Draft SPDP EIS states "NSA anticipates that the impacts on threatened and endangered species during operations would be minor" (p. 4-20, NSA 2022). However, without consultation with ESA experts, this statement is not substantiated and premature. Further, potential impacts of a potential spill or released contamination on the local flora and fauna, including state-listed species, should be included in the Draft SPDP EIS.

Human Health and Transportation Impacts

[Comment 68-1-14][Response 15.4] 1. Additional non-fatal endpoints should be considered in the evaluations of human health effects (e.g., from facility accidents, transportation, etc.). Throughout the Draft SPDP EIS, the discussion of human health impacts is mainly focused on fatalities and rarely considers non-fatal endpoints. For example, in the sections that discuss radiological human health effects from facility accidents and transportation, the impacts associated with the alternatives are described in terms of dose (e.g., person-rem, mrem) and risk (i.e., latent cancer fatalities (LCFs)) (see Tables 4-6 and 4-34, NSA 2022). Additionally, in the sections of Appendix E that focus on non-radiological transportation impacts, risk is described in terms of traffic fatalities (see Table 4-34, NSA 2022). We have the following comments on these analyses:

[Comment 68-1-15][Response 15.4] - Risk of non-fatal cancers resulting from exposure should also be analyzed and presented in the Draft SPDP EIS. While LCF is

an important endpoint, this value does not fully describe the impacts of these exposures. As stated in the Draft SPDP EIS "The estimated number of LCFs for the entire exposed worker population from the All LANL Sub-Alternative over the life of the project would be 2" (p. 4-26, NNSA 2022). This suggests that there will be many more non-fatal cancers that result from the alternatives presented in the Draft SPDP EIS. The EIS should present an analysis of cancer risk (e.g., excess lifetime cancer risk (ELCR)) to fully describe the potential risk of these alternatives to future workers and members of the surrounding communities.

[Comment 68-1-16][Response 23.1] - The increase in number of traffic accidents should be presented for the transport of radioactive materials. The projected number of traffic accidents are not presented in Table 4-33 titled "Risks of Transporting Radioactive Materials and Waste for the Preferred and No Action Alternatives." This table provides an estimate on traffic fatalities from the transport of these materials, but a value for the number of accidents (i.e., anything ranging from a fender bender that does not cause a fatality to an accident that causes a fatality) is not provided. The number of accidents is necessary to fully describe the risk associated with radioactive materials transportation. We note that "Number of Accidents" is included as a column in Table 4-34 which focuses on "Estimated Impacts from Hazardous Waste and Construction Material Transport." Thus, the number of transportation accidents were estimated for transportation of construction materials and hazardous waste, but not for the shipments associated with other EIS activities (i.e., the activities listed in the first column of Table 4-33). Finally, the Draft SPDP EIS is using values for truck accident and fatality rates that are "reflective of transportation in South Carolina" (p. E-41, NNSA 2015), while transportation under the Preferred Alternative(s) occurs across states and tribal lands across the United States. Assuming the traffic accident analysis is conducted for the transportation of radioactive materials in the Final SPDP EIS, truck accident values and fatality rates should be reflective of the specific areas where transportation is occurring, including the state of New Mexico.

[Comment 68-1-17][Response 17.6] 2. The human health analyses do not fully bound the potential outcomes associated with the activities considered in the Draft SPDP EIS. In multiple instances in the EIS, the analyses conducted only partially examine the potential human health effects associated with the alternatives presented. Examples of this are provided below.

- The maximum exposed individual (MEI) in the human health analysis does not accurately reflect land use at LANL. The MEI for the evaluation of human health as a result of facility accidents is "considered to be located at the site boundary at LANL" (p. 4-22, NNSA 2022). Many areas within the LANL property are accessible to the public who can access the area for a variety of activities. This includes hiking for members of the general public, as well as ceremonies and visiting cultural sites for visitors from nearby Pueblos. Thus, the MEI for a facility accident should consider someone on the LANL property, rather than only an individual at the LANL boundary.

[Comment 68-1-18][Response 17.2] - In multiple instances, potential human health impacts are not analyzed in the Draft SPDP EIS and insufficient reasoning is provided for excluding them from analysis. For example, human health analysis for facility radiological incidents were not analyzed because uncertainties are "quite large" (p. 4-28, NNSA 2022). An analysis of these accidents should still be conducted, and an explanation provided for the range of accidents that were analyzed, given the uncertainty. In addition, under the human health of "Chemical Usage and Facility Accidents" it is noted that large amounts of diesel fuel and lubricant would be onsite as a result of construction. An analysis on impacts associated with the release of these chemicals was not conducted, however, because "Hazards associated with these chemicals are well known and are

standard hazards with the construction industry" (p. 4-31, NNSA 2022). This is not a valid reason, and an appropriate analysis should be conducted.

Correspondence #68-2 (continuation of 68-1)

[Comment 68-2-1][Response 20.1] 3. The traffic analysis should be expanded to include impacts associated with trucks and should be conducted for a larger area. As part of the All-LANL Sub Alternative, there will be approximately 50,000 truck shipments, including 6,183 for pit disassembly and processing and dilution at LANL, 1,269 for non-pit metal processing and dilution at LANL, 450 for hazardous waste transport, and 43,000 trucks for construction materials transport (Tables 4-33 and 4-34, NNSA 2022). In the Draft SPDP EIS, the traffic analysis focuses solely on impacts from commuter vehicles along the road where construction will take place (Pajarito Rd). We have the following comments on that analysis:

- The increase in truck traffic, particularly trucks associated with construction activities, should be included in the traffic analysis. The addition of 43,000 trucks will result in a large increase in daily truck traffic on roads near LANL during the period of construction (which presumably would not be spaced out equally over the lifetime of the program but would dominantly occur at the front end of the program).

- In order to fully describe traffic impacts, the traffic analysis should consider the impacts associated with both trucks and commuter vehicles.

- The traffic analysis should be conducted for the entire area surrounding LANL that is expected to see increases in traffic. The traffic analysis conducted for the Sub-Alternatives that include operations at LANL is focused solely on Pajarito Rd, which is within the boundaries of LANL. "Materials to support construction and modification activities would generally be shipped from locations within 30 mi of the site under all sub-alternatives" (p. S-23, NNSA 2022) and thus traffic impacts from shipments associated with construction will likely occur over a much larger area. Communities that will likely be impacted include the nearby Pueblos and multiple local New Mexico towns and cities. This increase in trucks has the potential to substantially increase traffic in these communities and thus the traffic analysis should be expanded to include the full area where construction traffic is likely to be.

Concerns with WIPP Facility Use and Waste Storage

[Comment 68-2-2][Response 8.2] 1. The capacity and timeline for waste storage at WIPP is unclear. The Draft SPDP does not provide information to confirm that WIPP has the capacity to store an additional 34 MT of plutonium. Further, clarification is needed on the timeline for disposal at WIPP. The latest information on WIPP states that the facility is projected to complete its mission by 2034 (DOE and Salado Isolation Mining Contractors 2023) - sooner than the completion of the Surplus Plutonium Disposition Program (anticipated to be completed by 2050). However, the Draft SPDP EIS states "WIPP is currently anticipated to operate beyond 2050" These apparent contradictions need to be clarified.

[Comment 68-2-3][Response 21.1] 2. Options for disposal of high- and low-level mixed waste are not sufficiently explored or described. There are various types of waste plutonium. Currently, only transuranic (TRU) waste can be stored at WIPP. The Draft SPDP EIS also mentions high- and low-level wastes but does not definitively state where

Correspondence

they will be stored and/or disposed of, nor any potential associated consequences. The use of the WIPP facility is not sufficiently described in the Draft SPDP EIS, and the types of plutonium wastes and their disposal plans and consequences are also unclear.

##Note: Commenter provided a list of references that is not depicted here.##

Correspondence #69

From: Deborah Reade
Sent: Thursday, March 16, 2023 12:54 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Comments from Deborah Reade on the Draft EIS for NNSA's Surplus Plutonium Disposition Program (DOE/EIS-0549)
Attachments: 2023-DeborahReade_SurplusPu-DEIS comments.docx; 2023-EPA-WIPP-letter_4-2021.pdf

Dear Ms Maxted,

Attached, please find my comments on the Draft EIS for NNSA's Surplus Plutonium Disposition Program (DOE/EIS-0549). I've also attached a 2023 EPA letter to WIPP dated 4-20-21 which is referred to in my comments. Please confirm that you have received and accepted these.

Thank you,
Deborah Reade

Deborah Reade
117 Duran Street
Santa Fe NM 87501-1817
Phone 505-986-9284
reade@nets.com

Ms Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
March 16, 2023
Via email to: SPDP-EIS@nnsa.doe.gov

Comments on the Draft EIS for NNSA's Surplus Plutonium Disposition Program (DOE/EIS-0549)

This Draft EIS concerns 34 MT of Surplus Plutonium and what should be done with it in order to permanently dispose of it, while at the same time making it impossible ever to use this plutonium for nuclear weapons in the future. The Department of Energy's (DOE) National Nuclear Security Administration (NNSA) has chosen the so-called "dilute and dispose" method as its Proposed Action to achieve these goals.

[Comment 69-1][Response 5.5] Savannah River Site and Los Alamos National Laboratory: Two Risky Sites

While I greatly support making this Surplus Plutonium forever unavailable for nuclear weapons, **all the parts of this particular strategy seem clearly marked with red flags.** Both Savannah River Site (SRS) and Los Alamos National Laboratory (LANL) - critical

components of the Dilute and Dispose plan - have terrible safety records and histories of misspent funds. **[Comment 69-2][Response 24.2]** Both would be tasked with massive programs in repurposing aging buildings to ramp up new Pit Production programs to unprecedented levels, at the same time as both would also be processing this Surplus Plutonium.

[Comment 69-3][Response 17.1] **This is just asking for a major accident and possibly a major release** - either at one of the sites or on the highways. Where are your risk assessments that take human error and the past, terrible safety history of these sites into account? Why are you pretending not to notice?

[Comment 69-4][Response 5.5] LANL couldn't even build a very few pits without having to shut down for three years. There are constant accidents and safety violations at the Lab year after year. And they still state that "Safety is a journey; not a destination" (*LANL legacy waste contractor N3B President and Program Manager Kim Lebak*, <https://ladailypost.com/em-la-n3b-forum-focuses-on-environmental-management-cleanup-and-chromium-plume/>). Well, they're clearly lost on their safety journey, down some dead end road, without a map, and don't get it that plutonium safety is all about being at the destination.

[Comment 69-5][Response 5.5] SRS has wasted billions of taxpayer dollars in botched project after project. First plutonium immobilization for disposal, then MOX fuel. Now SRS wants to repurpose their white elephant facilities into Surplus Plutonium processing and expanded Plutonium Pit Production - another unneeded project to waste more billions of taxpayer funds.

[Comment 69-6][Response 23.3] **Transportation, Dangerous Waste Form, Increased Risk**

This project also includes three legs of transportation back and forth across the country, mostly with a powdered plutonium inventory. An accident with a release of this waste form could contaminate a huge area, particularly when the wind is blowing, and would be impossible to clean up. Where are the risk assessments of the increased risk to human health, property, and the environment from this increased number of shipments, of a plutonium waste form that carries an additional increased risk?

[Comment 69-7][Response 8.2] **WIPP May Not be Available for Diluted Surplus Plutonium Disposal**

The Dilute and Dispose strategy assumes that WIPP will be available to accept the processed waste. But this assumption is premature. Even with the permit modification to WIPP's RCRA permit recalculating how waste is measured, sending this processed Surplus Plutonium waste to WIPP and especially sending it along with TRU-waste from increased Pit Production, will bust the maximum legally allowed waste volume at WIPP.

[Comment 69-8][Response 8.4] Both the New Mexico Environment Department (NMED) and the people of the state want cleanup of New Mexico's legacy defense wastes and prioritization for those wastes to go to WIPP. New Mexicans also want closure of WIPP after 25 operating years no matter if, because of their accidents and mismanagement, WIPP has not disposed its maximum waste volume.

[Comment 69-9][Response 8.3] WIPP is already sited in an area with massive resources and a karst geology that is not ideal for mixed waste disposal. **Expanding the original underground footprint at WIPP** to accommodate the size of the increased number of containers needed for the Surplus Plutonium waste (and the Pit Production

Correspondence

waste), **may not be safe.** Time-consuming and expensive studies, including site characterization, would be required by The Environmental Protection Agency (EPA) before this footprint expansion could take place. (*Letter to Reinhard Knerr, Manager, Carlsbad Field Office, DOE from Lee Ann Veal, Director Radiation Protection Division, EPA; dated April 20, 2021-included*). **There is a very real possibility that there will be no place to put this "diluted" waste after it's processed.** Another billion-dollar botched project?

Storage First

[Comment 69-10][Response 1.2] DOE and the NNSA need to see reality clearly. How many tries will it take before they understand that we are not ready to dispose this Surplus Plutonium? How much project mismanagement and how many wasted billions? **We do not yet understand how to safely dispose 34 metric tons of Surplus Plutonium.** It's time to accept that. **[Comment 69-11][Response 7.3]** Instead, immobilize the waste in ceramic, not for disposal, but for safe, secure, retrievable storage until we do have a credible solution. This is what the prudent person would do. Do the work where most of the plutonium is stored, at Pantex in Texas so shipping is at the minimum, and move the SRS plutonium there for processing.

[Comment 69-12][Response 27.5] Finally, Stop Making More TRU-Waste Pit production is a "make-work" program that is dangerous and completely unneeded. Since these pits are only tested virtually, they will make our stockpile less secure than it is now. Instead, we should work on figuring out a real solution to our TRU-waste problem. **[Comment 69-13][Response 4.4]** LANL and SRS could be jewels in the crown for finding a plutonium waste solution, and this would have the advantage of creating even more jobs than the sketchy Dilute and Dispose strategy ever could.

Sincerely,

Deborah Reade
117 Duran Street
Santa Fe NM 87501
505-986-9284/reafe@nets.com

##Note: Commenter provided a letter from the EPA as an attachment to comments that is not depicted here.##

Correspondence #70

From: spdpeis
Sent: Thursday, March 16, 2023 1:43 PM
To: ^PNNL SPDP EIS; GALAN, JEFFREY J (SRS)
Subject: FW: Comment letter -Rep. Wilson et al.
Attachments: [EXTERNAL] Comment letter -Rep. Wilson et al.

From: Blackwell, Leah Grace
Sent: Thursday, March 16, 2023 1:42 PM
To: spdpeis@nnsa.doe.gov
CC: Ramirez, Daniel Subject: [EXTERNAL] Comment letter -Rep. Wilson et al.
Attachments: Savannah River Site Surplus Plutonium Disposition EIS Comment Letter.pdf

Ms. Maxted,

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Please find attached comment from the SC Congressional delegation and Representative Rick Allen.

Best,

Leah Grace Blackwell Senior Policy Advisor Rep. Joe Wilson (SC-02)

##Note: Correspondence includes letterhead for the Congress of the United States.##

Ms. Maxcine Maxted
NEPA Document Manager
U.S. Department of Energy/National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site
P.O. Box A, Bldg. 730-2B, Rm. 328
Aiken, SC 29802

Ms. Maxted,

We write to submit comments pertaining to the recently published draft Environmental Impact Statement (EIS)¹ for the U.S. Department of Energy's (DOE) and National Nuclear Security Administration's (NNSA) *Surplus Plutonium Disposition Program*. **[Comment 70-1][Response 5.3]** We are supportive of NNSA utilizing the unique capabilities at the Savannah River Site (SRS) to achieve its goal of safely disposing of 34 metric tons of surplus weapons-grade plutonium at the Waste Isolation Pilot Plant (WIPP) in New Mexico, so long as they satisfy the requirements of the State of South Carolina.

¹ DOE/EIS-0549: Draft Environmental Impact Statement (December 2022). Energy.gov. (n.d.). Retrieved March 15, 2023, from <https://www.energy.gov/nepa/articles/doeeis-0549-draft-environmental-impact-statement-december-2022>

[Comment 70-2][Response 25.2] SRS is one of our nation's most vital national security assets and has had a multi-billion dollar economic impact on the regional economy over the last decade. Growth at the site translates directly into opportunity and jobs for the residents of South Carolina and Georgia. However, it must be done in a responsible and accountable manner. As you know, NNSA does not have the greatest track-record with the State regarding a follow-through on commitments.

With over seventy years of experience in the safe handling of plutonium and other nuclear materials, SRS has the right people, facilities, and infrastructure to ensure that this effort is completed effectively.

[Comment 70-3][Response 25.1] As material is processed at SRS as described in this draft EIS, we remain committed to ensuring that the NNSA maintains its promise to remove it from the State. We are not supportive of any long-term storage of surplus plutonium in South Carolina and the federal government must ensure the continued operation of the WIPP facility and continued receipt of shipments throughout the life cycle of this mission.

[Comment 70-4][Response 27.4] Further, DOE/NNSA must keep us up-to-date regarding the exact processes, amounts of weapons-grade plutonium at SRS, and progress towards compliance with the 2020 settlement agreement with the state of South Carolina. Maximum possible transparency is essential in developing trust and demonstrating a commitment to completing this mission in a timely and accountable manner.

Correspondence

Thank you for the opportunity to comment and we look forward to continuing to work with you to ensure continued growth and success at the Savannah River Site.

Sincerely,

Joe Wilson
Member of Congress

Tim Scott
United States Senator

Rick W. Allen
Member of Congress

Ralph Norman
Member of Congress

Nancy Mace
Member of Congress

Lindsey O. Graham
United States Senator

James E. Clyburn
Member of Congress

Jeff Duncan
Member of Congress

William R. Timmons, IV
Member of Congress

Russell Fry
Member of Congress

Correspondence #71

From: spd-p-eis
Sent: Thursday, March 16, 2023 3:52 PM
To: ^PNNL SPDP EIS; GALAN, JEFFREY J (SRS)
Subject: FW: [EXTERNAL] Public comments on SPDP EIS
Attachments: [EXTERNAL] Public comments on SPDP EIS

From: Mary Stauffer
Sent: Thursday, March 16, 2023 3:49 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Public comments on SPDP EIS
Attachments: Comments on Draft EIS mcs 031623.pdf

Comments on Draft EIS for SPDP
Prepared by M Stauffer
March 16, 2023

General Comments

[Comment 71-1][Response 9.6] Although minimum requirements of a NEPA EIS were adhered to in this SPDP EIS, a more robust analysis is warranted because this project is far more complex than a typical project for which an EIS is prepared.

[Comment 71-2][Response 2.2] The SPDP EIS lacks inclusion of the following two topics and these topics should be addressed in the revised document for completeness:

(1) Disposition of only 34 metric tons of surplus plutonium is addressed in the document, but a total of 61.5 metric tons have been declared in the U.S. and more surplus plutonium will be generated in the planned pit production program. This SPDP EIS should disclose the full plan for the nation's surplus plutonium and inform the public of these plans .

(2) **[Comment 71-3][Response 17.3]** This SPDP EIS does not address what would happen if an accident similar to what occurred at WIPP in 2014 occurred at one of the processing facilities or along the transport route. It is downplayed in the document by assuming the risk of such an accident is one in ten million, which appears arbitrarily small given that there has already been an accident at WIPP. The public should be made aware of impacts to human health and the environment in the event of an unexpected release at each facility and along the transportation route, and detailed emergency plans should be made available.

[Comment 71-4][Response 9.3] The length of this document, 700 pages, is too large for the public to review and understand in the 60-day review period. Question/answer sessions offered by NNSA mid-way during the review period would have been helpful to the public, and likely would have resulted in more meaningful public comments on the document. Questions should be allowed on topics beyond the direct content of this SPDP EIS, such as the planned disposition of the remaining 28 MT of surplus plutonium that has no assigned disposition. There appears to be no forum to discuss the full program and how this SPDP EIS fits into the larger framework of NNSA's plans and goals. The 30-minute poster sessions preceding the public hearings were not a helpful format to ask questions and get meaningful answers.

[Comment 71-5][Response 7.4] The presentation of only one alternative to No Action is disappointing and insufficient given the decades of research and billions of dollars spent in an effort to identify a safe, cost-effective, and environmentally-sound method of radioactive waste disposition. The Preferred Alternative to dilute and dispose of surplus plutonium lacks innovative and long-term protectiveness and it does not offer much benefit over No Action. **[Comment 71-6][Response 6.2]** The No Action alternative has been implemented safely for decades with far less handling of dangerous radioactive materials than the Preferred Alternative. The No Action alternative should be selected. **[Comment 71-7][Response 9.7]** Also, a more technically robust and updated Programmatic EIS (PEIS) should be developed and reviewed by the public.

SPECIFIC COMMENTS

Section 1.1 (Introduction)

[Comment 71-8][Response 3.1] The 7.1 metric tons (MT) of surplus plutonium is inconsistently referred to as pit plutonium and non-pit plutonium in various sentences. Please correct to non-pit where appropriate.

Section 1.4 Alternatives Evaluated

[Comment 71-9][Response 3.1] NNSA states that MOX fuel and immobilization were eliminated as viable alternatives in prior EIS documents, thus they are not reevaluated in this EIS because of the absence of significant new circumstances or information that would change the results of the previous evaluation (in the 2015 EIS). It is difficult for reviewers to consult so many different documents to understand the overall framework of the program. **[Comment 71-10][Response 9.7]** An updated PEIS should be prepared that includes the analysis for dismissing these two prior preferred alternatives that were studied for decades using billions of taxpayer dollars. Activities at Pantex and Oak Ridge should also be included in an updated PEIS, so that current plans for SPDP are provided in one place.

Section 2.1. Alternatives Considered for Detailed Analysis in this SPDP

[Comment 71-11][Response 7.3] The fiscal realities and schedule for implementing other alternatives such as MOX and immobilization should have been realized years ago before spending billions of dollars on development of these technologies. **[Comment 71-12][Response 9.3]** The abrupt switch to a dilute and dispose strategy has caught the public off guard and it appears rushed. Greater transparency and communication should have accompanied such a significant change in plans.

Section 2.1.1 Preferred Alternative

[Comment 71-13][Response 5.1] NNSA states that the strategy of diluting plutonium oxide with an adulterant and disposing the resultant CH-TRU waste at the WIPP facility was previously demonstrated at Rocky Flats. The Rocky Flats surplus plutonium was non-pit, thus there has been no demonstration on disposing pit plutonium. Please clarify this in the document.

Section 2.1.1.2.5 Waste Isolation Pilot Plant

[Comment 71-14][Response 2.1] The SPDP EIS states "WIPP is currently anticipated to operate beyond 2050". If WIPP is anticipated to operate beyond 2050, then this EIS should address the period beyond 2050 and disclose what NNSA's plans are for the SPDP beyond 2050 and beyond the 34 metric tons of surplus plutonium.

Section 3.2.7.1 Radiation and Exposure Risk, Section 3.2.7.4 Accidents, and Section 3.2.7.5 Emergency Preparedness (LANL)

[Comment 71-15][Response 17.4] In Section 3.2.7.1 the document states that "The risk of a latent cancer fatality to a maximally exposed member of the public from releases of radioactive material from the LANL operations from 2016-2020 is very low (1×10^{-6})." A very low risk under these normal operating conditions is expected, because operations are designed to achieve a safe working environment. The risk of an accident during operations with a radioactive release that would cause a high-dose exposure is addressed later in Section 3.2.7.4, but not to the detail that risk was evaluated in Section 3.2.7.1.

[Comment 71-16][Response 17.4] The conclusion that no accident will occur at LANL is based on records for the past five years (2017 through 2021) and corroborated with records from 2007 through 2011, when no accidents occurred fortunately. This is an inadequate evaluation to assess risk for operations that will occur over several decades or longer and it does not consider the accident that occurred at WIPP in 2014. A robust process hazard analysis (e.g., a Hazard and Operability Study, or HAZOP) should be performed for SPDP and presented in this section in conjunction with an exposure and risk evaluation at least as detailed as in Section 3.2.7.1.

Section 3.5.1 Repository Characteristics

[Comment 71-17][Response 8.3] The risk of future exposure to human health and the

environment from oil and gas drilling in the Permian basin should be addressed more robustly in this Section.

Section 3.5.2 Repository Subsurface Characteristics

[Comment 71-18][Response 8.3] Please add explanation in this section on how a halite unit (consisting of highly soluble material) can have a very low permeability to fluid flow.

4.1.5 Waste Isolation Pilot Plant

[Comment 71-19][Response 3.1] There are too many references in Section 4.1.5 to prior documents (earlier EISs, etc.) and some of the documents referenced are more than 20 years old. These older documents cannot be relied upon for current context of the issues. Relevant portions of the prior documents should be carried forward to this SPDP EIS, with appropriate updates to current context. For example, **[Comment 71-20][Response 8.3]** the SPDP EIS states that "In December 2018, a permit modification request for the WIPP facility Hazardous Waste Facility Permit was approved by NMED..." This statement is misleading because NMED has since rescinded their approval of the permit modification, thus the statement should be removed or edited.

In the second paragraph of this section, please clarify that replacement of lost disposal capacity in panel 1,7 and 9 was due to the 2014 accident at WIPP.

Correspondence #72

From: Paige Murphy-Young
Sent: Thursday, March 16, 2023 5:06 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] DOE's Surplus Plutonium Draft EIS

Esteemed DOE EIS Team:

[Comment 72-1][Response 26.1] The current Surplus Plutonium Draft EIS must be rejected. DOE (along with other federal and state entities, should re-evaluate the entire proposal, its generational, environmental impacts, its inequities and illegalities.

[Comment 72-2][Response 8.1] DOE's Surplus Plutonium program would violate both the WIPP Withdrawal Acts of 1992 and 1996 which established legal limits on 1) the amounts of nuclear wastes that can be stored at WIPP and 2) the characterization (degree of radioactivity, etc.) that can be stored at WIPP.

A federal agency cannot violate these limitations.

Moreover Congress cannot "withdraw" federal lands if such "withdrawal" impacts a pre-existing contract/legal obligations. The 1992 WIPP Withdrawal Act codified a legally enforceable consent decree that incorporated a legal agreement between the federal government and the State of New Mexico settling a federal lawsuit brought by the State). This agreement and the federal statute both established limits on nuclear wastes (only High Level Wastes as defined by statute) and the amount of space into which such wastes could be buried. This limits were retained in the 1996 WIPP Withdrawal Act.

DOE's Surplus Plutonium proposal would allow plutonium wastes not included in the legal limitations and violate the statutory limits on the amounts of wastes deposited in WIPP.

[Comment 72-3][Response 27.7] Finally, DOE 's Consent-Based Siting Program would

Correspondence

be critically impaired if New Mexico's legal rights are so cavalierly dismissed.

Sincerely,

Paige Murphy-Young

Correspondence #73

From: Limehouse, Thomas

Sent: Thursday, March 16, 2023 6:14 PM

To: SPDP-EIS@NNSA.DOE.GOV

CC: Walker, Trey; Plowden, Mark; Marsh, Jordan; Lambert, Grayson; Shedd, Erica

Subject: [EXTERNAL] DOE/EIS-0549 (SPDP Draft EIS) -Comments from Gov. McMaster

Attachments: 2023-03-16 Gov. McMaster to DOE re Draft EIS Comment -Surplus Plutonium Disposition Program.pdf

Please see the attached correspondence from Governor McMaster in connection with the Surplus Plutonium Disposition Program and the above-referenced draft environmental impact statement.

Should DOE or NNSA have any questions or need anything further in this regard, please do not hesitate to contact us.

Best, Thomas

##Note: Correspondence includes letterhead of the Seal of the Governor for South Carolina.##

March 16, 2023

The Honorable Jennifer M. Granholm

The Honorable Jill Hruby

U.S. Department of Energy

1000 Independence Avenue, SW

Washington, DC 20585

Through: Ms. Maxcine Maxted, NEPA Document Manager

National Nuclear Security Administration

Office of Material Management and Minimization

Savannah River Site

Post Office Box A (Building 730-2B, Room 328)

Aiken, South Carolina 29802

Dear Secretary Granholm and Administrator Hruby:

I write to comment on the recently published draft Environmental Impact Statement ("EIS") for the U.S. Department of Energy ("DOE") and the National Nuclear Security Administration's ("NNSA") Surplus Plutonium Disposition Program.

[Comment 73-1][Response 4.2] As I have repeatedly conveyed, it is of paramount importance that South Carolina does not become a permanent plutonium waste repository. I recognize that disposing of 34 metric tons of surplus weapons-grade plutonium is not an

expeditious process, but it is imperative that DOE and NNSA account for and comply with previous commitments and existing legal requirements to remove the plutonium from our State in a timely manner. Accordingly, while I support NNSA utilizing current and future missions and capabilities at the Savannah River Site ("SRS") to prepare for and effectuate the safe and prompt transfer of defense plutonium for disposition at the Waste Isolation Pilot Plant ("WIPP") in New Mexico, I write to address several related considerations and concerns.

[Comment 73-2][Response 5.3] SRS's experienced personnel and impressive facilities collectively represent one of the United States' most important national security resources and one of our State's and region's most significant economic assets. Indeed, continued growth at SRS has a direct correlation to regional prosperity and to increased opportunities for the people of South Carolina. However, to be clear, my support for SRS's missions should not be misconstrued as support for the long-term storage of surplus plutonium in South Carolina. Rather, my support is the product of my confidence in the skilled professionals at SRS and their ability to help DOE and NNSA achieve the stated goal of transferring this defense material to WIPP.

[Comment 73-3][Response 9.1] After years of DOE repeatedly ignoring its obligations and abandoning the MOX project, it is critical that DOE and NNSA demonstrate a shared commitment to completing this mission in a successful and timely manner. Yet, without updated information or sufficient details, the State cannot hold DOE and NNSA accountable and ensure that DOE and NNSA are complying with their obligations to South Carolina. For instance, the draft EIS seemingly fails to account for or sufficiently explain the impacts associated with the preferred alternative on the State of South Carolina. However, the requirement to address such concerns in an EIS is independent of DOE's duty to confer with the State of South Carolina, and a comment letter is no substitute for collaboration on critical matters of this nature. Accordingly, I respectfully remind DOE and NNSA of the Secretary of Energy's statutory duty to consult with me and my office "regarding any decisions or plans of the Secretary related to the disposition of surplus defense plutonium and defense plutonium materials located at" SRS. 50 U.S.C. § 2567(a). Although I appreciate the NNSA's willingness to communicate with and periodically provide information to the Nuclear Advisory Council, I ask that DOE conduct regular, direct, and detailed briefings with me and members of my staff. To facilitate such meaningful (and mandatory) collaboration, DOE and NNSA should contact my office to schedule these meetings and to initiate any requisite clearance processes and procedures.

Thank you in advance for your consideration of this matter. I look forward to hearing from, and working with, DOE and NNSA to facilitate the removal of surplus defense plutonium from this State and to support SRS's continued growth and future success.

Yours very truly,

Henry McMaster

HM/tl

Correspondence #74

From: spd-p-eis
Sent: Thursday, March 16, 2023 6:45 PM
To: ^PNNL SPDP EIS; GALAN, JEFFREY J (SRS)

Correspondence

Subject: FW: [EXTERNAL] Additional Comments on SPDP EIS
Attachments: [EXTERNAL] Additional Comments on SPDP EIS

From: Donald Moniak
Sent: Thursday, March 16, 2023 6:45 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Additional Comments on SPDP EIS

Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site

Ms. Maxted,

Following are my written comments on the Surplus Plutonium Disposition Program EIS, which are in addition to comments I made verbally during the January 30, 2023 public meeting in North Augusta, SC; and the ZOOM meeting on January 30, 2023 when I submitted comments via the ZOOM Chat function due to a technical audio broadcast issue on my end.

[Comment 74-1][Response 7.4] 1. There is an insufficient range of alternatives.

(Please feel free to correct any technical inaccuracies, but these comments are based on publicly available information, but obviously not all publicly available data)

Specifically, the plutonium pit demilitarization and continued storage option, as well as the continued pit storage without demilitarization option, were both arbitrarily removed from consideration during or before the scoping period. DOE/NNSA cited a defunct U.S.-Russian agreement on surplus plutonium disposition as justification to avoid an analysis of a technically defensible option.

Plutonium pit demilitarization means stuffing the hollow spheres (or other shapes) with an inert material that prevents compression of the pit into a critical configuration. This is a proven technology that would allow for subsequent long-term storage, possibly up to hundreds of years.

The plutonium in pits is composed of a Pu-gallium alloy that is considered the most stable and manageable plutonium phase. Pits are components that are designed for long-term storage in a weapons environment, and storage within robust containers provides an equivalent or superior storage environment.

Surplus, demilitarized pits could be stored under secure guard at another arid location-- either a new underground bunker at WIPP or Nevada Test Site. Storage of surplus plutonium pits could be combined with storage of the 4,000 or so "strategic reserve" pits that remain part of the nation's nuclear arsenal inventory, but are not deployed in weapons.

Moving these thousands of "strategic reserve" pits away from the Pantex nuclear weapons assembly site, along with demilitarized surplus pits, could send a stronger nonproliferation message than merely disassembling ten to twelve thousand functionally obsolete surplus pits.

Plutonium pits do not corrode at high rates. If they did then pit production would have resumed in the early 2000's. Pits do not even corrode at rates that lend doubt as to the functionality of these nuclear triggers--they only corrode at rates that create doubt about reliability in terms of design explosive yield.

Reliability is not to be confused with function. A pit that only explodes with a force less than 75-80 percent of design yield can be considered "unreliable," but the recipients of such a weapon of mass destruction would still tend to disagree. Most people in the path of a 100 kiloton nuclear explosive are not going to care if it only goes off at 60 kilotons.

The reliability of the nation's nuclear weapons stockpile has been confirmed year in and year out for decades--even as pits aged beyond original expectations. Unless the validation is a dangerous shell game, this annual certification is proof that aging is more of a reliability issue than a functionality issue.

The benefits of demilitarization and long-term storage include:

- a. Allow dangerous levels of Americium-241, which is the primary source of radiation exposure in aged plutonium, to decline below their peak levels due to natural radioactive decay; and allow Plutonium-241 to decay to negligible levels.
- b. Avoid of billions of dollars of pit disassembly and conversion activities.
- c. Avoid unnecessary conversion to dangerous, more dispersible plutonium oxide powder.
- d. Significantly reduce the volume of wastes proposed for WIPP and eliminate criticality concerns over higher concentrations of plutonium in WIPP waste.
- e. Eliminate the need for 350-500 Safe Secure Transport trips to move 30-35 pits at a time from Pantex to either Los Alamos or SRS.
- f. Avoiding the need to process ~5-15 tons of Highly Enriched Uranium (assuming 1/2 to 1 kg of HEU per pit, average) via shipping to Y-12 at Oak Ridge in SSTs.
- h. Avoiding the processing and disposition of hazardous beryllium parts, whether it be pit cladding or part of a neutron reflector within the pit.
- i. Avoiding decades of increased criticality concerns during pit disassembly.

In summary, pit demilitarization and storage would save billions of dollars,

The argument that surplus plutonium must be converted to a non-proliferant form is antiquated. Thirty years ago we were told that only the "spent fuel standard" would suffice. Then the Pu/MOX fuel contractor who profited from that standard to the tune of billions of dollars argued before the Nuclear Regulatory Commission that dilution with uranium into fuel pellets was a sufficient safeguard against proliferation.

In other words, the spent fuel standard was a fraudulent and empty argument; as is the argument that we must "dispose" of a mere 27 tons of plutonium in surplus pits while keeping 30-40 tons either in deployed weapons or as "strategic reserve" pits--and while other nuclear weapons states such as Great Britain, France, and Russia maintain massive stockpiles of weapons-usable "reactor grade" plutonium that is potentially more attractive to less sophisticated nuclear proliferators.

Correspondence

To add the final coat of whitewash to the nonproliferation facade, pit disassembly and conversion for Pu disposition could very well take place in the same facilities and using the same process lines as pit disassembly and conversion for new pit production.

Disposing 27 to 30 tons of surplus plutonium in pits is mere symbolism for the D.C. and international nonproliferation lobby, and a token gesture to the IAEA and global nonproliferation efforts.

2. The SPDEIS contains insufficient analyses and information regarding several key topics:

a. The radiation hazards of Americium-241. **[Comment 74-2][Response 15.8]** A search of the SPDEIS yielded a minimal amount of information--fewer than ten instances of a mention of Americium. Yet the analysis reported Americium as the most concerning source of worker exposure and potential civilian exposure in the case of an accident. A failure to properly inform us of the real risks and hazards from Americium within the surplus plutonium---which is presently increasing to peak levels before entering a downward decay path---is itself grounds to challenge the SPDEIS in the courts.

b. **[Comment 74-3][Response 17.1]** Criticality risks are also understated. Plutonium pit disassembly and conversion involves handling plutonium in a subcritical configuration. The risks of accidental criticality must be adequately explained and detailed in an unclassified manner.

c. **[Comment 74-4][Response 16.1]** Beryllium parts handling and processing is minimally addressed, despite the known hazards of low-level beryllium exposure.

d. **[Comment 74-5][Response 5.1]** The plutonium storage settlement between DOE and the State of South Carolina is unaddressed.

Two years ago the State of South Carolina reached a \$600 million settlement with the federal government over the 9.5 tons of military-grade, surplus plutonium transferred to SRS.

This SPDEIS does not address this issue in any meaningful manner. DOE/NNSA has an obligation to explain any potential impacts on meeting the terms of the current settlement agreement, and should report those terms in this document.

Thank You for accepting these comments,

Donald Moniak
Eureka Research, LLC
PO BOX 112
Vaucluse, SC 29850

Correspondence #75

From: spdp-eis
Sent: Thursday, March 16, 2023 6:51 PM
To: ^PNNL SPDP EIS; GALAN, JEFFREY J (SRS)
Subject: FW: [EXTERNAL] Additional comments

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Attachments: [EXTERNAL] Additional comments

From: Donald Moniak
Sent: Thursday, March 16, 2023 6:49 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Additional comments

To: Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site

Ms. Maxted,

Please accept these comments on the SPDPEIS as well. These notes were made prior to the 1/16/23 meeting in North Augusta.

Here is the only reference to "pit stuffing" which I mentioned several times during the call.

" Demilitarization and disposal of pits - This alternative was not considered further because it does not meet the nonproliferation goals set forth in the purpose and need, as described in Section S.2, to safely and securely disposition plutonium that is surplus to the Nation's defense needs so that it is not readily usable in nuclear weapons". (Pages S-30-31)

Here is Matt Bunn's older article on pit stuffing. Think of pits as a toilet bowl float. Pits have tubes leading to a hollow interior. The pits can be stuffed through the tubes with inert material---wire, ball bearings--that render them useless militarily because the plutonium cannot be compressed. The plutonium would have to be re-used into new pits to be in a weapon again.

[Comment 75-1][Response 5.1] Most of the material in question during this process is in Pits. DOE/NNSA is being coy because they do not want to specify how much will come from pits, so they are throwing in 7 MT of non-pit metal plutonium.

Pits are not just plutonium, they are sealed weapon components with a metal cladding , neutron tampers, and other parts. Some contain tritium by design, others are contaminated with tritium. Some contain HEU , possibly as a Pu/HEU alloy but most likely as a separate part. The HEU has to be separated and sent to Oak Ridge for decontamination and reuse.

There is a major category of pits called "bonded pits" which are more problematic. They were not designed for relatively straightforward disassembly. These are probably mostly Livermore designs--most problem weapon systems are Livermore designs because the weapons were more likely to be designed to be used and not disassembled. It is the colder of the two weapons labs.

[Comment 75-2][Response 7.4] So the real question is what to do with surplus pits.

DOE and most non proliferation people claim they must be disassembled and the metal converted to a powder.

But why? Who is going to dig up plutonium pits from a deep repository?

And if they are stuffed, they cannot be used in a weapon. Yes, the plutonium will remain

Correspondence

available for re-use. But there is approximately 7-13 tons of surplus plutonium that, for some reason, is not in this program. Which leads me to some key points:

1. **[Comment 75-3][Response 2.2]** DOE/NNSA is not clearly defining how much plutonium it has, what forms it is in, and where it is. It is only doing a "bounding analysis" without telling us what is really involved.

2. **[Comment 75-4][Response 2.4]** The plutonium in pits is the most stable form of plutonium there is:
"Gallium alloyed with delta-phase plutonium retains the benefit of a product nearly machinable as aluminum and far less prone to plutonium oxidation without raising the risk of pre-initiation, and therefore the plutonium-gallium alloy is the most common in plutonium pits." (Plutonium, The Last Five Years, PaGE 10)

So why destabilize the plutonium that is alloyed, shielded, and most easily stored?

2. **[Comment 75-5][Response 15.8]** Americium levels are starting to peak, meaning the radiation hazard to workers is highest in the next decade or two. Americium-241 is 100X more toxic than Pu-239. I have not gotten far enough in the SPDEIS to see if this is covered, but even if it is I doubt it is adequately addressed. I was at a Citizen Advisory Board meeting in July 2021 where the word "Americium" was not even uttered during a plutonium processing discussion. From Pu The Last Five Years, Page 14:

3. **[Comment 75-6][Response 5.2]** At the current rate of processing in the Dilute and Dispose program, which in 2021-2022 was 0.2 MT , it will take close to fifty years to process the existing Plutonium at SRS. While they plan to increase production of the Plutonium to waste process, even if they triple their rates it will take 1520 years to handle the plutonium already there.

How can DOE/NNSA propose to bring more plutonium cross country when they have moved so slow on what they have?

Thank You,

Donald Moniak
Aiken County, SC

Correspondence #76

From: spdp-eis
Sent: Thursday, March 16, 2023 7:14 PM
To: ^PNNL SPDP EIS; GALAN, JEFFREY J (SRS)
Subject: FW: [EXTERNAL] Final comments.
Attachments: [EXTERNAL] Final comments.

From: Donald Moniak
Sent: Thursday, March 16, 2023 7:13 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Final comments.
Attachments: Plutonium_The_Last_5_Years.pdf

Surplus Plutonium Disposition Program Final Environmental Impact Statement

To: Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
Savannah River Site
Attached is a document that can also be linked from:

Ms. Maxted,

[Comment 76-1][Response 15.10]

https://www.nonukesyall.org/pdfs/Plutonium_The_Last_5_Years.pdf

1. Please ignore the Executive Summary.
2. The SPDPEIS should address all issues raised in Chapter one that associated with plutonium toxicity, chemistry, and criticality hazards addressed in the SPDEIS. Plutonium toxicity and other complications with the element should be explained in simple, basic English.

[Comment 76-2][Response 2.2] 2. The SPDPEIS should provide a summary of the existing plutonium inventories across the weapons complex--similar to that in the DOE publication of the mid 1990's: Plutonium, The Last 50 Years.

[Comment 76-3][Response 5.1] 3. The SPDEIS should provide an assessment of the various issues with pit disassembly and conversion that are associated with various pit types, and explain how the "bounding analyses" actually do address issues such as increased risks with disassembling bonded pits and beryllium exposure issues.

Thank you,

Donald Moniak

Correspondence #77-1

From: Jay Coghlan
Sent: Thursday, March 16, 2023 8:33 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] NWNM SPDP EIS comments
Attachments: NWNM SPDP EIS comments 3-16-23.pdf

Attached are our comments.

Acknowledgment of receipt is appreciated.

Thank you, Jay

Jay Coghlan, Executive Director
Nuclear Watch New Mexico
903 W. Alameda #325, Santa Fe, NM 87501
505.989.7342 c. 505.470.3154
jay@nukewatch.org
March 16, 2023

Correspondence

Ms. Maxcine Maxted
NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
P.O. Box A, Aiken, SC 29802

Via email to SPDP-EIS@nnsa.doe.gov

Comments on the Draft Environmental Impact Statement for NNSA's Surplus Plutonium Disposition Program (SPDP EIS) (DOE/EIS-0549)

Nuclear Watch New Mexico herein submits our comments and recommendations. **[Comment 77-1-1][Response 9.5]** We hope the National Nuclear Security Administration (NNSA) will seriously consider them instead of rubber stamping its preferred alternative. It's past time that NNSA make good choices after its past bad decisions that cost American taxpayers billions of dollars.

Our mission:

*Through comprehensive research, public education and effective citizen action, **Nuclear Watch New Mexico** seeks to promote safety and environmental protection at regional nuclear facilities; mission diversification away from nuclear weapons programs; greater accountability and cleanup in the nation-wide nuclear weapons complex; and consistent U.S. leadership toward a world free of nuclear weapons.*

Introduction

As its Proposed Action, the Department of Energy's semi-autonomous nuclear weapons agency, the National Nuclear Security Administration (NNSA),

"... proposes to implement the dilute and dispose strategy for 34 MT[metric tons] of surplus plutonium to safely and securely disposition the surplus plutonium such that it could never again be readily used in a nuclear weapon. The dilute and dispose strategy includes processing surplus plutonium to plutonium oxide, diluting it with an adulterant to inhibit plutonium recovery, and disposing the resulting CH-TRU [contact-handled transuranic] waste at the WIPP[Waste Isolation Pilot Plant] facility. Studies conducted over the last several years have identified the dilute and dispose strategy as being a technically mature and cost-effective alternative for surplus plutonium disposition." ¹

¹ SPDP EIS, p.S-5, <https://www.energy.gov/sites/default/files/2022-12/draft-eis-0549-surplusplutonium-disposition-summary-2022-12.pdf>

[Comment 77-1-2] [Response 2.3] In alignment with our mission, Nuclear Watch strongly and unequivocally supports making plutonium unavailable for future use in nuclear weapons. **[Comment 77-1-3][Response 5.5]** NNSA's current scheme under "dilute and dispose" is to transport excess plutonium pits from the Pantex Plant near Amarillo, TX, to the Los Alamos National Laboratory (LANL) for pre-processing into plutonium oxide. Pu oxide would then be shipped to the Savannah River Site (SRS) in South Carolina for dilution with a classified adulterant code named "stardust," and then shipped back across the country for disposal at the Waste Isolation Pilot Plant (WIPP) in southern New Mexico.

[Comment 77-1-4][Response 7.4] This is far from the best strategy, for the reasons explained in these comments. Building upon that, we hope to offer better alternatives. Or perhaps better put, suggest better alternatives that NNSA has rejected in the past, only to pursue dead ends. It is past time that the agency gets it right.

The Need for Credible Cost Estimates and an Integrated Master Schedule

[Comment 77-1-5][Response 26.1] Before we go there, no matter what path NNSA ultimately chooses, the agency must fulfill its good governance responsibilities to the American taxpayer as a matter of principle. **[Comment 77-1-6][Response 27.5]** In 2002 DOE terminated the plutonium immobilization option, which was a monumental and costly mistake. It instead pursued its Mixed Oxide(MOX) program to fabricate fuel rods from excess plutonium for use in commercial nuclear power plants. This had its own proliferation concerns since it would have introduced plutonium into the international market.

However, escalating costs, perhaps as much as \$7-8 billion in misspent taxpayer dollars for which no one has been held accountable, caused DOE to terminate the MOX project at the Savannah River Site (SRS). NNSA is now "repurposing" the canceled MOX Fuel Fabrication Facility into the Savannah River Plutonium Processing Facility for unnecessary expanded plutonium pit production, which itself has more than doubled in estimated costs to \$11 billion and is delayed from 2030 to 2036.

[Comment 77-1-7][Response 26.3] NNSA's recently released FY 2024 Congressional Budget Request provides yet more evidence of the agency's chronic track record of broken promises and blown budgets. We were shocked to see total estimated costs for the Uranium Processing Facility (UPF) now projected at \$8.5-8.95 billion. This is after the UPF's mission had been radically downscoped and a decision made to continue uranium operations in two old contaminated buildings previously scheduled for decontamination and decommissioning. NNSA repeatedly swore to Congress that UPF construction would never exceed \$6.5 billion, which had the personal backing of Tennessee's powerful Senator Lamar Alexander.

Now, instead, the UPF cost overrun is being incorporated into all of NNSA's new major facilities, as the following demonstrates:

"UPF experienced cost growth (during construction) of 40% due in large part to labor availability, labor productivity, and supply chain difficulties. These underlying labor and supply issues are replicated on virtually all NNSA projects, similar cost growth is being seen in nuclear projects between CD-1 and CD-2, and competitive subcontracts are returning proposals consistently higher than estimated. With design approximately 60% complete [for the Savannah River Plutonium Processing Facility], NNSA projects a design cost increase, beyond what is included in this data sheet, of at least \$1 billion." ²

² NNSA FY 2024 Congressional Budget Request, pdf page 298, <https://www.energy.gov/sites/default/files/2023-03/doe-fy-2024-budget-vol-1-nnsa.pdf>

[Comment 77-1-8][Response 27.5] All of this is indicative of why DOE and NNSA (and its predecessor DOE Defense Programs) have been on the independent Government Accountability Office's "High Risk List" for project mismanagement and waste of taxpayer's dollars since its inception in 1991. **[Comment 77-1-9][Response 24.2]** Pointing specifically to NNSA's program of expanded plutonium pit production, a January 2023 Government Accountability Office report concluded that NNSA has no credible cost estimates for its most expensive program ever. An earlier GAO report formally recommended that NNSA institute an "Integrated Master Schedule" to better plan and coordinate planned redundant pit production between the Los Alamos National Laboratory (LANL) and the Savannah River Site (SRS). But NNSA's FY 2024 budget request has no indication that the agency will implement these common-sense good government measures.

[Comment 77-1-10][Response 5.2] We extrapolate this to all NNSA programs. The agency should have credible total cost estimates and a rigorous Integrated Master Schedule to coordinate programmatic activities between relevant multiple sites. That should be applied to all NNSA programs, very much including its Surplus Plutonium Disposition Program. The SPDP EIS should address this.

The Problems with NNSA's Preferred Alternative

[Comment 77-1-11][Response 5.5] To repeat, NNSA's current scheme under "dilute and dispose" is to transport excess plutonium pits from the Pantex Plant near Amarillo, TX, to the Los Alamos National Laboratory (LANL) for pre-processing into plutonium oxide. Pu oxide would then be shipped to the Savannah River Site (SRS) in South Carolina for dilution with a classified adulterant code named "stardust," and then shipped back across the country for disposal at the Waste Isolation Pilot Plant (WIPP) in southern New Mexico. The problems with this are manifold.

Transportation

This scheme involves three legs of transportation, which increase expense and public risk. **[Comment 77-1-12][Response 23.3]** We argue later in these comments for an alternative that would cut down on transportation to begin with. That said, transportation risks are also increased by the form of plutonium that NNSA proposes to transport, that is plutonium oxide. **[Comment 77-1-13][Response 5.1]** It is our understanding that the processing of pits through the Advanced Recovery and Integrated Extraction System (ARIES) at LANL's PF-4 could produce either metallic buttons or plutonium oxide powder. The final SPDP EIS must make clear which physical form the plutonium oxide is in.

[Comment 77-1-14][Response 23.3] Potential transportation risks are magnified if in powder form. It is well known that respirable plutonium when inhaled into the lungs has a high probability of inducing cancers. The final SPDP EIS must thoroughly analyze all transportation risks.

LANL Processing of Pits into Plutonium Oxide

[Comment 77-1-15][Response 5.5] Processing of pits into Pu oxide at LANL would take place at the Lab's main plutonium facility known as "PF-4." It is an aged facility that was built in the 1970's for research, not production. PF-4 has had a long history of nuclear safety incidences, serious enough to result in the suspension of major plutonium operations for three years. It is still not fully seismically qualified. PF-4 also processes arguably the most dangerous plutonium isotope of all, gamma-emitting Pu-238. **[Comment 77-1-16][Response 24.2]** Finally, in an aggressive program of expansion, PF-4 is the facility planned to produce at least 30 plutonium pits per year by 2026. It is not clear that PF4 can safely process Pu oxide and Pu-238 while at the same time expanding plutonium pit production, all in an aging facility with limited working floor space.

[Comment 77-1-17][Response 24.2] The Draft SPDP EIS makes the claim that:

"The Preferred Alternative would include construction and modification activities to expand the existing PDP capability (DOE's Advanced Recovery and Integrated Extraction System Oxide Production Program) in the PF-4 building located in LANL's Technical Area 55 (TA-55). The construction and modification activities would include the addition of new or modified gloveboxes, material entry hoods, and other upgrades to increase throughput. These activities would occur largely inside the PF-4 building and would expand the current space

used for PDP from 5,200 ft² to 6,800 ft² without impact to other programs (LANL 2022)." P. S-13.

The Government Accountability Office is not as sanguine as NNSA. As GAO put it:

"... plans for converting additional surplus plutonium into plutonium oxide are uncertain primarily because of two issues. These issues are (1) NNSA's plans for new pit production, which are still in development and which will also take place at LANL; and (2) issues surrounding the agency's ability to ship newly produced plutonium oxide for dilution to DOE's Savannah River Site (SRS) in South Carolina..."

"NNSA officials told us in February 2019 that as a result of pit production requirements, the agency might need to use a portion of the processing areas in PF-4 for pit production that the agency had planned to use for plutonium oxide production. Pit production requirements also may use more space in the high-security vault in PF-4 where plutonium must be temporarily stored. Also, in February 2019, NNSA officials said that PF-4's high-security storage space is already near full capacity and that pit production may demand storage space that NNSA had planned to use for plutonium oxide production..."

"Reviewing use of operational space in PF-4. LANL reported in March 2019 that the requirement to produce 30 pits per year would have no significant negative impact on plutonium oxide production. However, LANL reported that a number of programs, including pit production, were planning to increase operations in PF-4, placing demands on the aging facility that could lead to more frequent maintenance outages. In August 2019, NNSA officials responsible for plutonium oxide production and pit production said they continue to believe that increased oxide production and pit production can be simultaneously accomplished in PF-4 but that they are continuing to review the issue as the agency's pit production plans evolve."³

³ *SURPLUS PLUTONIUM DISPOSITION, NNSA's Long-Term Plutonium Oxide Production Plans Are Uncertain*, GAO, October 2019, <https://www.gao.gov/assets/gao-20-166.pdf>

The final SPD EIS needs to clearly demonstrate that the planned simultaneous plutonium programs are completely safe and operationally compatible. But better yet is an alternative that avoids this massive processing of pits into plutonium oxide, which we suggest later in these comments.

Issues Concerning the Waste Isolation Pilot Plant

[Comment 77-1-18][Response 8.2] Under Reason for Dismissal from Detailed Study, the draft SPD EIS states:

"Disposal of plutonium at a secondary repository similar to the WIPP facility The WIPP facility had sufficient capacity to accommodate dispositioning of the entire amount of surplus plutonium based on the Annual Transuranic Waste Inventory Report - 2012 (DOE 2012), published after the Draft SPD SEIS was issued; therefore, a secondary repository was not necessary and the 2015 SPD SEIS WIPP Alternative was revived. Further, as a result of a WIPP facility permit change that separates the volume of disposal containers from the TRU waste volume allowed by the WIPP Land Withdrawal Act (NMED 2018), the apparent lack of unsubscribed disposal capacity at the WIPP facility is no longer a constraint. Therefore, in this SPDP EIS, NNSA is evaluating the impacts of disposing diluted plutonium oxide CH-TRU waste at WIPP." Page S-29 & 30.

Correspondence

That is certainly convenient for NNSA that a DOE document says that there is plenty of room in WIPP. But that is not what the independent National Academy of Sciences says, even while allowing for the so-called "Volume of Record." This is visually depicted in this graph: ⁴

##Note: Commenter included a figure representing transuranic waste disposal volumes that is not depicted here.##

⁴ *Review of the Department of Energy's Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant (2020)*, National Academy of Sciences, page 6, <https://nap.nationalacademies.org/catalog/25593/review-of-the-department-of-energys-plans-for-disposal-of-surplus-plutonium-in-the-waste-isolation-pilot-plant>

Moreover, the NNSA should implement these formal recommendations by the National Academy of Sciences (if rejected, please provide a full justification and explanation in the final SPDPEIS):

"To improve transparency and understanding of DOE's future plans for dispositioning of surplus plutonium as DSP-TRU in WIPP, the committee recommends the following:

RECOMMENDATION 5-7: The Environmental Protection Agency, the Department of Energy, and the State of New Mexico should engage in developing a mutually agreed-upon strategy for vetting the effects of the dilute and dispose inventory, in its entirety (and as added to the rest of the projected and emplaced inventory), on the Waste Isolation Pilot Plant. This vetting could be through a special demonstration of compliance and certification, or other means all agree to, but should occur before committing the substantial resources that will be needed to implement an integrated (48.2 metric tons of surplus plutonium) dilute and dispose program.

To further improve transparency and public trust in DOE decisions, the committee recommends reinstatement of the Environmental Evaluation Group (EEG).

RECOMMENDATION 5-3 (updated Interim Report RECOMMENDATION 3): If the Department of Energy's (DOE's) National Nuclear Security Administration's dilute and dispose plan moves forward, DOE should reinstate the Environmental Evaluation Group (EEG), representing the concerns of the State of New Mexico, throughout the lifetime of processing up to 48.2 metric tons of surplus plutonium material. The independence of the EEG should be supported through mechanisms similar to those established in its original founding. Members of the technical review organization should be technically qualified to address the health and safety issues and a subset should have access authorizations that will allow thorough review of classified aspects of the plans and their implementation.

[Comment 77-1-19][Response 9.7] To address concerns related to plans spanning multiple DOE sites, offices, functions, and priorities without crosscutting leadership support, the committee recommends the following:

RECOMMENDATION 5-5: The Department of Energy should implement a new comprehensive programmatic environmental impact statement (PEIS) to consider fully the environmental impacts of the total diluted surplus plutonium transuranic waste inventory (up to an additional 48.2 metric tons) targeted for dilution at the Savannah River Site and disposal at the Waste Isolation Pilot Plant (WIPP). Given the scale and character of the diluted surplus plutonium inventory, the effect it has on redefining the character of WIPP, the involvement of several facilities at several sites to prepare the plutonium for dilution, a schedule of

decades requiring sustained support, and the environmental and programmatic significance of the changes therein, a PEIS for the whole of surplus plutonium that considers all affected sites as a system is appropriate to address the intent and direction of the National Environmental Policy Act and would better support the need for public acceptance and stakeholder engagement by affording all the opportunity to contemplate the full picture." ⁵

⁵ Ibid, page 9.

-End

[Comment 77-1-20][Response 8.2] In addition, as a reflection of the increasingly adversarial relationship between the State of New Mexico and DOE/NNSA, the New Mexico Environment Department is proposing the following new conditions on the state WIPP hazardous permit:

- "1) Prioritizing the disposal of legacy DOE wastes at WIPP that are generated from New Mexico clean-up activities.
2. Tying WIPP's closure to the end of the permit term (i.e., 10 years after the new permit is issued) unless the permittees can provide an accurate inventory of all remaining wastes awaiting clean-up and emplacement in WIPP.
3. Revoking the permittees state operating permit should the U.S. Congress change the federal Land Withdrawal Act to allow for increased waste emplacement at WIPP.
4. Suspending any and all waste shipments to WIPP if there are allegations or evidence of a threat to human health or the environment.
5. Requiring the DOE to submit a new annual report detailing steps toward siting another geologic repository in a state other than New Mexico."

Correspondence #77-2 (continuation of 77-1)

[Comment 77-2-1][Response 8.3] To add to this, the NNSA claims that more than half of WIPP's future capacity will be reserved until at least 2050 for new radioactive wastes from expanded plutonium pit production. **[Comment 77-2-2][Response 8.1]** That fundamentally changes WIPP's mission from cleanup to direct support of increased nuclear weapons production, which could erode the facility's popular support in New Mexico.

[Comment 77-2-3][Response 8.3] Relevant to NMED's fourth condition, in February 2014 an improperly prepared waste drum from LANL ruptured, contaminating 21 workers and closing WIPP for just under three years, costing taxpayers ~\$1.5 billion to reopen. Any further major incidences like that would seriously jeopardize WIPP's future. **[Comment 77-2-4][Response 8.7]** More generally, despite the Carlsbad boosters, there is growing resentment in New Mexico that the Land of Enchantment is becoming the nation's radioactive waste dumping ground, especially given the Holtec "Consolidated Interim Storage" proposal that would not be so "interim."

[Comment 77-2-5][Response 8.5] The bottom line is that NNSA cannot count on WIPP over the next 30-40 years for its ill-conceived "dilute and dispose" program. To be credible, the final SPD EIS must consider alternatives other than WIPP.

Another Alternative That Must Be Considered

[Comment 77-2-6][Response 7.3] To repeat, we strongly and unequivocally support making excess plutonium unavailable for any future nuclear weapons use. In our opinion,

Correspondence

the best way to do that is:

* Embed the excess plutonium in a ceramic matrix which can then be securely stored pending permanent disposal. This would eliminate Pu oxide processing at LANL's overworked PF-4 and two legs of potentially dangerous transportation.

* Locate the necessary ceramic operations where the most plutonium is, that is at the Pantex Plant near Amarillo, TX. Ship excess plutonium at SRS to Pantex to consolidate operations and meet legal obligations to get plutonium out of South Carolina.

* Excess plutonium embedded in a ceramic matrix would be stable, safe and secure until such time as the United States finally locates a permanent repository other than WIPP. This could include deep boreholes that would make any possible future "mining" of plutonium very difficult. **[Comment 77-2-7][Response 7.4]** In the meantime, do not increase the existing volume of transuranic wastes through unneeded plutonium pit production.

Under Alternatives Considered and Dismissed in the 2015 SPD SEIS, this draft SPDP EIS states:

"Ceramic can-in-canister approach for immobilizing plutonium-The program was cancelled in 2002 because of budgetary constraints. Subsequently, further refinement of the technology was stopped, and DOE infrastructure and expertise associated with this technology have not evolved or matured." Page S-29.

We question that NNSA can say budget constraints in good faith, given the agency's history of blown budgets and schedules, in particular the failed MOX disposition path. We strongly urge that the ceramic can-in-canister approach be started up again. It is no wonder that "DOE infrastructure and expertise associated with this technology have not evolved or matured" given the ill-advised choice to kill it and waste \$7-8 billion on MOX. Start it up again! Please provide supporting full analysis in the final SPDP EIS.

Under Alternatives Considered and Dismissed in the SPD EIS:

"Deep-borehole direct disposition or immobilized disposition -Regulatory and siting concerns. Institutional uncertainties associated with the siting of borehole facilities make timely implementation of this alternative unlikely. New legislation and regulations, or clarification of existing regulations, may be necessary." Page S-29.

That too should be reconsidered, especially given the questionable future availability of WIPP.

We expect NNSA to critically examine and discuss these alternatives in its final Surplus Plutonium Disposition Program Environmental Impact Statement, with complete justification and explanation if rejected. Nuclear Watch does not want to be always negative toward NNSA. The agency has blown it twice. We never the less hope to see NNSA reverse course and do surplus plutonium disposition right the third time.

These comments respectfully submitted,

Jay Coghlan
Executive Director

Scott Kovac

Research Director

Correspondence #78

From: Jeanne Green
Sent: Thursday, March 16, 2023 8:49 PM
To: SPDP-EIS@NNSA.DOE.GOV
Subject: [EXTERNAL] Public Comment on the Surplus Plutonium Disposition Program Draft Environmental Impact Statement (DEIS) to ship 34 Metric Tons (or more) of surplus plutonium pits from the Pantex Plant to LANL for processing into powdered plutonium for shipm...

[Comment 78-1][Response 23.2] Shipping plutonium back and forth across the country is a horrendous idea. Not well thought out. Transportation accidents could be catastrophic with no plan of how to protect the public.

[Comment 78-2][Response 7.4] DOE/NNSA must consider alternatives, including
* dilution and storage of the plutonium at the Savannah River Site (SRS);
* immobilization (encasing the plutonium in glass or ceramic materials prior to disposal) and storage at SRS or sites other than WIPP; and
* consideration of another repository other than WIPP.

[Comment 78-3][Response 8.1] DOE/NNSA violates the social contract with the People of New Mexico regarding WIPP. That social contract limits the disposal of legacy transuranic (TRU) plutonium waste to no more than 6.2 million cubic feet and limits the operational disposal phase to 25 years followed by closure, which could take 10 years. WIPP was supposed to close in 2024. What happened to the promises made to New Mexicans that WIPP is just a pilot project, not a permanent repository? WIPP is unsafe due to earthquake probabilities and oil & gas fracking nearby which could introduce water into the project with disastrous consequences.

Finally, DOE/NNSA must conscientiously comply with international standards. **[Comment 78-4][Response 9.6]** It must conform to its own rules concerning the bringing the outdated or non-existent environmental impact statements current so that the public has the latest information to review the DOE/NNSA current plans for surplus plutonium disposition. **[Comment 78-5][Response 8.1]** And it must not cast aside long-standing commitments and promises to the People of New Mexico.

[Comment 78-6][Response 9.6] DOE/NNSA must retract the SPDP DEIS; must complete the required NEPA analyses for the four proposed sites; **[Comment 78-7][Response 8.5]** must consider all alternatives, including another repository other than WIPP and immobilization; and compliance must comply with the social contract with the People of New Mexico.

. Plutonium exposure causes cancer **100 percent of the time.**

Sincerely, Jeanne Green, 15 Nieman Rd, Arroyo Hondo, NM 87513

Correspondence #79-1

From: Laura Watchempino
Sent: Thursday, March 16, 2023 11:00 PM
To: SPDP-EIS@nnsa.doe.gov

Correspondence

Subject: [EXTERNAL] SPDP Draft EIS Comments
Attachments: SPDP 2022 DEIS.docx

My comments are attached.

March 16, 2023

Public Comments for Surplus Plutonium Disposition Program Draft EIS

Via email: SPDP-EIS@NNSA.DOE.gov

Purpose and Need

As stated in the Abstract for this Draft Environmental Impact Statement (DEIS), the National Nuclear Security Administration (NNSA) works to prevent nuclear weapons proliferation and reduce the threat of nuclear and radiological terrorism around the world. This work is done by preventing the development of nuclear weapons and the spread of materials or knowledge needed to create them.

The stated purpose and need - to dispose of 34 metric tons of surplus plutonium, including up to 7.1 metric tons of non-pit surplus plutonium in a proliferation resistant form that can never again be used in nuclear weapons - requires the disassembly of plutonium pits and the conversion of pit and non-pit plutonium to oxide suitable for dilution with an adulterant to make it eligible as transuranic waste qualified for disposal at WIPP.

[Comment 79-1-1][Response 7.4] Previously, in 2015, DOE evaluated a No Action Alternative, along with four action alternatives for the disposition of 13.1 metric tons of surplus plutonium. *Final Surplus Plutonium Disposition Supplemental Environmental Impact Statement (SPD Supplemental EIS)*, DOE/EIS-0283-S2 Under all the alternatives, DOE would also disposition as MOX fuel 34 metric tons of surplus plutonium in accordance with previous decisions (65 FR 1608 and 68 FR 20134). Under three of the options, DOE would not build a stand-alone Pit Disassembly and Conversion Facility at the Savannah River Site, which DOE had previously decided to construct (65 FR 1608).

Before that, DOE had previously decided to construct a stand-alone Pit Disassembly and Conversion Facility at SRS (65 FR 1608). It is time to resurrect this alternative for evaluation in the Final EIS.

[Comment 79-1-2][Response 7.2] The MOX fuel alternative to convert pit plutonium and non-pit plutonium into MOX fuel for nuclear power plants at the Savannah River Site (SRS) and the immobilization of both surplus non-pit and converted pit plutonium at the SRS could also be reconsidered as an alternative in the Final EIS for Surplus Plutonium Disposition Program.

Analysis of Risks

[Comment 79-1-3][Response 23.1] The Surplus Plutonium Disposition Program (SPDP) is at cross purposes with the prevention of nuclear weapons proliferation and the spread of byproduct materials needed to create them. The circuitous transportation route between the Pantex site, treatment facilities at Los Alamos National Laboratory (LANL) and the Savannah River Site (SRS), with final disposal at the Waste Isolation Pilot Plant (WIPP) site multiplies opportunities for terrorism and exponentially increases the risk of transportation accidents as this extremely dangerous and lethal material is transported back and forth on our public

highways for treatment and eventual disposition. In addition, the treated plutonium waste could hypothetically be sent back to its point of origin if it does not meet the qualifications for disposal at the Waste Isolation Pilot Plant (WIPP). These risks must be thoroughly analyzed in the final EIS.

[Comment 79-1-4][Response 9.6] The segmentation of plutonium treatment back and forth between three sites and the addition of the WIPP site for final disposition of the treated plutonium calls for an updated Site-Wide EIS for each of the four facilities, and a comprehensive programmatic analysis of repeated and expanded exposure risks for resident populations along these transportation routes, in addition to targeted environmental impacts at each site.

[Comment 79-1-5][Response 9.6] DOE/NNSA should withdraw its draft Surplus Plutonium Disposition Program EIS for public comment until it brings it conducts an updated Site-Wide EIS for each of the four sites involved - Pantex, LANL, SRS and the WIPP.

[Comment 79-1-6][Response 9.7] And DOE plans to produce even more plutonium pits at LANL and SRS suggests that even more plutonium waste will be requiring treatment and disposal in the future, creating a new generation of proliferation risks. These contradictory purposes at multiple sites and points in time should be fully analyzed in a new comprehensive programmatic Environmental Impact Statement for all four sites.

[Comment 79-1-7][Response 3.1] The Draft EIS lacks a complete analysis of liability issues in the event of an accidental release of nuclear material for any reason during transport or at the final disposal site.

New Mexico's regional economy encompasses agriculture, ranching, oil and gas production, in addition to a thriving state-wide tourism industry, which could be decimated by a single accidental release of plutonium oxide, which is also the most pyritic form of plutonium. DOE must therefore address liability issues in the Final EIS.

A nuclear accident within our homelands and territories should be avoided at all costs.

Reduce Nuclear Weapons Waste

[Comment 79-1-8][Response 27.9] The disassembly and production of more plutonium pits, without the necessary planning for its disposition, will do more to endanger our national security than simply halting nuclear weapons development. It is unlikely that New Mexico or any other state will ever consent to host a national repository for the disposition of a steady stream of nuclear weapons waste.

A reduction in both the size of our national arsenal and novel weapons designs will reduce the corresponding waste generation and proliferation threats to people and our environment. This type of planning formed the impetus for a new START Treaty in 1997 and the 1968 Nuclear Non-Proliferation Treaty.

Allocating funds for the reduction of nuclear weapons waste, rather than to managing the waste after it is produced will advance a more sustainable economic and environmental infrastructure. Source reduction practices can reduce the public's exposure to high level nuclear waste, conserve our national and natural resources, and reduce financial costs for the DOE and states, particularly for long term nuclear waste management facilities and environmental liabilities. Reducing our nuclear weapons arsenal rather than expanding it will do more to protect our public health and national security than building another generation

Correspondence

of more lethal nuclear weapons requiring perpetual stewardship. Nuclear weapons reductions, as opposed to proliferation, will improve environmental conditions in and around disadvantaged communities in New Mexico that have long been overburdened by nuclear proliferation activities.

LANL's Limitations

[Comment 79-1-9][Response 27.9] There is a need to diversify LANL's mission beyond unprofitable nuclear weapons production and maintenance mission, with its skyrocketing costs.

[Comment 79-1-10][Response 5.5] LANL was originally designed as a research facility, not a production facility. The lab has inadequate space for proposed new plutonium pit production or for the safe storage of nuclear waste byproducts. Its location near the headwaters of a key watershed serving major population centers in New Mexico is not suited for storing, treating, or containing additional plutonium waste on top of an accumulation of Cold War nuclear weapons legacy waste.

[Comment 79-1-11][Response 17.5] An updated probabilistic seismic hazard analysis for LANL and the Parajito Plateau should be conducted and analyzed in the Final EIS.

[Comment 79-1-12][Response 24.5] DOE also needs to evaluate the capacity of the NNSA complex to execute another major construction project, given funding constraints and its start and stop history of evaluating projects, only to change course or delay decision-making (outlined above under Purpose and Need above).

Poor Safety Record at LANL

[Comment 79-1-13][Response 24.2] A 2014 radiological release at WIPP caused by improper packaging at LANL shut WIPP down for 3 years. The release from a single drum of radioactive waste which exploded underground on February 14, 2014 released radiation into WIPP's underground chambers and into ambient air outside the building. Shift workers were exposed, and the long term impacts of that exposure to their health is unknown. The parallel production of new plutonium pits and oxidation of old plutonium pits at LANL's aging facility where tons of legacy waste remains stored on the premises increases the risk that more costly mistakes will occur.

A similar increase in risk can be anticipated for the SRS where new plutonium pits will be produced at the same time that old pits are being disassembled and treated.

[Comment 79-1-14][Response 5.5] Waste that is currently stored outside and above ground at LANL poses special hazards that should be analyzed, as recommended by the Defense Nuclear Safety Board. LANL has declined HEPA filtration updates for Technical Area 55 and its 1979 safety system needs to be upgraded. Old gloveboxes need to be replaced for this new program. Instead, the focus is on meeting production deadlines, which puts workers and public health and safety at great risk. Cesium was found in the soil around LANL property following the Cerro Grande fire, but exposure paths and potential impacts to members of the public have not been studied, though Los Alamos County has one of highest cancer rates in New Mexico, and neurological diseases are becoming more prevalent.

LANL has failed to prioritize safety over production goals. **[Comment 79-1-15][Response 3.1]** The Final EIS must examine LANL's lax safety record and establish benchmarks for evaluating baseline environmental conditions in communities downwind and

downstream of LANL.

Waste Isolation Pilot Plant (WIPP) Limitations

[Comment 79-1-16][Response 8.1] The addition of a new weapons waste stream at WIPP will exceed WIPP's original mission and permit limits. DOE must not break the promises it made to NM regarding WIPP's limited mission. (1984 DOE Consent Agreement with NM, WIPP Land Withdrawal Act of 1992)

[Comment 79-1-17][Response 9.7] This issue requires analysis in a programmatic EIS is the expansion of WIPP's mission to store weapons grade surplus plutonium, that has been diluted.

[Comment 79-1-18][Response 8.1] WIPP's mission is limited to the safe disposal of defense-related transuranic waste, and the plant does not have the capacity to store all the nation's surplus plutonium without major modifications to its designated mission . WIPP is also restricted in the type of waste it can take. Diluting plutonium waste and pre-treatment does not transform this high level waste into TRU waste. The essential character of disassembled plutonium pit waste is high level nuclear waste and should not be re-characterized as TRU waste simply because it has been diluted. Compliance with WIPP's certification criteria for eligible waste should be examined in the Final EIS.

Additional Alternatives Needed

[Comment 79-1-19][Response 7.3] No alternatives for the immobilization or permanent disposal of surplus plutonium at the Pantex site, or for the immobilization and disposal at a single site was offered. Yet such alternatives would drastically cut back on the transportation risks to vulnerable communities along the transport route. Even one accidental release of plutonium would decimate any nearby communities, essentially turning them into uninhabitable wastelands for an indefinite period. The recovery and sequestration of lethal nuclear material that is dispersed into the environment after an accidental release may be technically impracticable.

[Comment 79-1-20][Response 7.4] Alternatively, the plutonium waste could be treated at Savannah River Site with a proven technology and stored onsite. This would eliminate risky transportation between three facilities for treatment, and would eliminate the need for dilution to make it eligible final disposition at WIPP, which is already oversubscribed.

Correspondence #79-2 (continuation of 79-1)

[Comment 79-2-1][Response 7.2] Re-purposing existing plutonium supplies could also satisfy the current need. The life of existing weapons could be extended with the existing supply of surplus plutonium triggers, as originally planned. This option may be preferable to their retirement and disposition, the only alternative presented in the draft EIS. Maintaining the ability to manufacture components for the nation's current arsenal of nuclear weapons should also be analyzed in the Final EIS.

Each of the alternatives listed above would do more to increase national and global security by reducing the risk of accidents, releases, and opportunities for terrorism in comparison to the alternatives offered.

Environmental Justice

[Comment 79-2-2][Response 7.4] Principles of environmental justice and equity further compel the development of additional alternatives in response to community concerns about endless shipments of fissionable weapons material through our communities and neighborhoods on its way to WIPP. **[Comment 79-2-3][Response 24.4]** Environmental justice communities have been disproportionately impacted by nuclear weapons testing during the Cold War without their knowledge or consent, by legacy contamination from uranium mines and mills, unchecked groundwater contaminant plumes at defense-related uranium mines, mills, and our national labs, and by an arsenal of nuclear weapons on standby at Kirtland Air Force Base. San Ildefonso Pueblo agricultural farmlands downstream of LANL are threatened with beryllium, tritium, and radon excursions from the lab.

[Comment 79-2-4][Response 24.2] Proposed treatment activities at LANL and the SRS, with a final disposition of surplus plutonium waste from Pantex at WIPP, is likely to open the door to a perpetual stream of surplus plutonium waste that has been diluted and recharacterized as TRU waste, along with a new generation of nuclear waste from the construction of more plutonium triggers for decades. The resulting cumulative impacts of the permanent disposition of surplus plutonium waste at WIPP now and into the future should be analyzed in the Final EIS for this program.

Conclusion

Nuclear weapons and waste materials pose extreme risks to our public health, our public water supplies, and our special landscapes at all stages of development, testing, deployment, and retirement. All stages require perpetual stewardship, management, and maintenance.

[Comment 79-2-5][Response 8.1] We do not consent to the unsolicited and unwarranted exposure to plutonium in its most deadly form, nor has the state of New Mexico consented to host the final disposition of surplus plutonium waste, in addition to defense-related TRU waste, within its borders for all time. New Mexicans have specifically objected to the expansion of WIPP's mission and operations for an indefinite period and to DOE's authority to compel such an unauthorized expansion. (1984 DOE Consent Agreement with NM, WIPP Land Withdrawal Act of 1992 and social contract with the citizens of New Mexico).

[Comment 79-2-6][Response 27.9] We suggest reorienting our nation's priorities from producing more weapons to providing for basic human needs. **[Comment 79-2-7][Response 5.2]** The exorbitant cost of transporting surplus plutonium in Texas, to New Mexico and South Carolina for dilution, then back to New Mexico for permanent disposition at WIPP is unnecessary, in light of other viable alternatives to the proposed action.

Submitted by:
L. Watchempino
P.O. Box 407
Pueblo of Acoma, NM 87034

Correspondence #80

From: Andrea Jones
Sent: Monday, March 13, 2023 8:45 AM
To: SPDP-EIS@nnsa.doe.gov

Surplus Plutonium Disposition Program Final Environmental Impact Statement

Subject: [EXTERNAL] GA WAND comments on DOE's Surplus Plutonium Plans Attachments:
GA WAND Comments Surplus Plutonium Plan.docx -Google Docs.pdf

Hello,

Please find written comments attached.

Andrea Young Jones, MPA
GA WAND -Government Relations Public Policy Director
250 Georgia Ave SE # 202
Atlanta, GA 30312
(404) 524-5991
andrea@georgiawand.org
GEORGIA

Georgia WAND advocates for environmental social justice and racial equity regarding clean energy, clean water, clean air, land, nuclear and real estate in Black and brown communities.

##Note: Correspondence includes letterhead for Georgia WAND.##

March 13, 2023

Department of Energy
Office of NEPA Policy and Compliance
DOE/EIS-0549: Surplus Plutonium Disposition Program

Thank you for the opportunity to submit written comments on the draft Environmental Impact Statement (EIS) for the DOE surplus plutonium plans. Georgia WAND (Women's Action for New Directions) is a women-led nonprofit that empowers Georgians to advocate for governmental programs and policies that prioritize and address climate change, environmental racism and gender inequities. We submit these written comments in solidarity with our coalition partners advocating for environmental justice and nuclear harm reduction policies.

[Comment 80-1][Response 23.3] In the latest draft environmental impact statement, DOE plans to ship the triggers from its Pantex Plant, north of Amarillo, to LANL in Northern New Mexico on I-40. At Clines Corners, the trucks would proceed north on U.S. 285 to I-40 to the 599 by-pass around Santa Fe and back onto 285 to LANL. At LANL, the triggers would be pulverized into powder at the oversubscribed Plutonium Facility. From LANL, the powdered plutonium would be shipped to South Carolina for processing at the DOE's Savannah River Plant. The final leg of the 3,300-mile trip ends in southeast New Mexico at WIPP. What the draft statement does not provide is an estimate of the number of years, nor the number of shipments that are planned to transport the plutonium. **[Comment 80-2][Response 9.7]** Since the DOE's plans involve transporting dangerous radiological waste through communities in at least 10 states, a Programmatic Environmental Impact Statement must be done to inform the communities impacted and educate community residents about the potential risk to communities involved. **[Comment 80-3][Response 4.2]** It is of most importance to acknowledge that the DOE's plans would change the form of plutonium to powder. If inhaled, powdered plutonium causes cancer one hundred percent of the time. As reported by Sandia National Laboratories, powdered plutonium, if released over land, is almost impossible to clean up. Transporting powdered plutonium risks ranch and farmlands, businesses, schools, homes and communities.

[Comment 80-4][Response 24.3] Regarding the proposed plan for surplus plutonium disposal at the Savannah River Site (SRS) nuclear weapons complex is yet another activity that will impact Georgia's frontline communities that is not included in the EIS. It is imperative that the scope of the EIS consider any new mission or increased activity at the SRS and include, as much as possible, overlapping elements in connection to the construction of nuclear power Plant Vogtle. In 2002, the last year that the Georgia Department of Natural Resources Environmental Protection Division received funding from the Department of Energy to conduct independent radiological environmental monitoring across the state, results from Burke County revealed elevated levels of tritium, cesium 137, strontium-90, plutonium, cobalt 60, and iodine 129. All of these materials must be taken into consideration when calculating the compound and synergistic effects of all of the increased activity in the area. **[Comment 80-5][Response 24.2]** In recent years SRS watch groups have made comments in opposition to new pit production at SRS. The issue of disposal of surplus plutonium highlights the fact that there is no good way to dispose of surplus plutonium. A new pit production mission will further exacerbate this problem. **[Comment 80-6][Response 24.3]** In addition, there will be two proposed missions affecting communities downwind and downstream from SRS particularly Burke County which is home to two new nuclear reactors.

[Comment 80-7][Response 8.5] Georgia WAND strongly supports the recommendation that repositories be built in other states so that New Mexico doesn't bear the sole burden of disposing of the nation's nuclear weapons' waste. **[Comment 80-8][Response 8.2]** The suggested expansion of WIPP foresees that the repository will continue operating forever, instead of beginning closure in 2024. An end date is essential so that WIPP doesn't become the "forever" nuclear weapons' waste site for the nation. We support NMEDs insistence that the amount and type of waste and scheduling be known. **[Comment 80-9][Response 4.2]** Surplus plutonium is a waste that was never meant for WIPP. New Mexico's Senator Domenici warned against diluting pure plutonium to meet WIPP criteria standards. This is exactly what the NNSA is planning to do. **[Comment 80-10][Response 9.3]** WIPP has not surveyed communities that would be affected or addressed environmental justice issues. Indeed, almost no communities even know this expansion is being planned. **[Comment 80-11][Response 9.7]** Which is why Georgia WAND supports a Programmatic Environmental Impact Statement for all the communities involved and public hearings in these communities to alert residents of plans and the potential impacts to their communities.

Sincerely,
Andrea Young Jones
Government Relations and Public Policy Director

Correspondence #81

From: Jean Stevens
Sent: Wednesday, March 8, 2023 3:15 PM
To: SPDP-EIS@NNSA.DOE.gov
Subject: [EXTERNAL] No to Plutonium Pit Transport and Production in NM & Beyond

To whom it may concern,

Plutonium pits are stored in Pantex and are useable for at least another 60 years. **[Comment 81-1][Response 27.3]** Rocky Flats had numerous issues with safety

and was raided by the FBI in the late 1980's as a result.

[Comment 81-2][Response 9.6] The Department of Energy (DOE) has been working to find a solution for at least 30 years. Over that time, Los Alamos National Laboratory (LANL) and the Waste Isolation Pilot Plant (WIPP) were not included in the plans and were not analyzed in the environmental impact statements required by the National Environmental Policy Act (NEPA).

[Comment 81-3][Response 23.3] A big issue for public safety especially in light of the recent train derailments in the USA: DOE plans to ship the triggers from its Pantex Plant, north of Amarillo, to LANL in Northern New Mexico on I-40. At Clines Corners, the trucks would proceed north on U.S. 285 to I-40 to the 599 by-pass around Santa Fe and back onto 285 to LANL. At LANL, the triggers would be pulverized into powder at the over-subscribed Plutonium Facility. From LANL, the powdered plutonium would be shipped to South Carolina for processing at the DOE's Savannah River Plant. The final leg of the 3,300-mile trip ends in southeast New Mexico at WIPP. Nevertheless, the draft statement does not provide an estimate of the number of years, nor the number of shipments that are planned.

Correspondence #82

From: Cynthia McNamara
Sent: Wednesday, March 15, 2023 5:09 PM
To: SPDP-EIS@NNSA.DOE.gov
Subject: [EXTERNAL] Surplus Plutonium Draft Environmental Impact Statement

To: Maxine Maxted

Re: Surplus Plutonium Draft Environmental Impact Statement

[Comment 82-1][Response 26.1] I write regarding the Waste Isolation Pilot Plant in New Mexico and the associated Draft Environmental Impact Statement. I am opposed to the operation of this site in the first place. **[Comment 82-2][Response 8.2]** The proposed expansion of its activities and the way in which the changes are being introduced are unacceptable.

[Comment 82-3][Response 8.1] Surplus plutonium has never been considered appropriate waste for WIPP. **[Comment 82-4][Response 4.2]** The proposed surplus plutonium program changes the plutonium waste into its most deadly form and exacerbates an already-existing public health hazard. **[Comment 82-5][Response 17.12]** Powdered plutonium, if inhaled, causes cancer 100% of the time. When released over land, the substance is almost impossible to clean up and even then only at great expenditure of taxpayer money.

[Comment 82-6][Response 23.3] The proposed expansion of the operation entails shipping this deadly material thousands of miles through ten states and through urban and rural areas, putting at risk homes, schools, businesses, and agricultural lands. Powdered plutonium must never be transported; it poses too great a danger to communities. To do so would be the height of irresponsibility.

[Comment 82-7][Response 9.3] The people being put at catastrophic risk deserve to be consulted and should be given a decisive say in whether or not the proposed program moves forward. To date, there has been a notable lack of transparency on the part of the

Correspondence

NNSA regarding its efforts to introduce the changes.

[Comment 82-8][Response 8.2] Additionally, adding a new waste stream to the WIPP facility will overfill its limits. **[Comment 82-9][Response 8.1]** The NNSA has an obligation to adhere to the promises made to the people of New Mexico when the facility was initially imposed on them. To date, the NNSA, the federal organization proposing this mission, has not communicated adequately with the public to explain the new risks. This additional waste stream would also necessitate postponing the WIPP closing date well beyond the date initially promised. The NNSA has yet to justify its failure to live up to that initial closure promise.

[Comment 82-10][Response 5.5] Communities in New Mexico have made it clear they do not want to live with the risks of this new expanded mission. Communities outside the state have similarly voiced opposition to the transport of deadly radioactive waste through their neighborhoods. **[Comment 82-11][Response 9.5]** The NNSA needs to start listening. It has no right to disregard public sentiment.

[Comment 82-12][Response 7.4] A different solution to radioactive waste disposal must be crafted. It is well past time for the NNSA to devote its energies and resources to exploring alternatives instead of working to impose a fundamentally dishonest and overly risky arrangement on the state of New Mexico.

Thank you for considering my comments.

Sincerely,
Cynthia McNamara

Correspondence #83

From: Laura Rosenberger Haider
Sent: Friday, March 17, 2023 3:30 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] Withdraw the Unsupported Surplus Plutonium Draft EIS

[Comment 83-1][Response 5.1] The draft EIS for the surplus plutonium disposition project plans are unsupported with up-to-date information, data and analysis as required by NEPA.

I heard that potentially dangerous incidents had occurred at plutonium facilities including damaged waste containers.

Correspondence #84

From: No More Bombs
Sent: Friday, March 17, 2023 9:45 AM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL] comment: surplus plutonium disposition

Ms. Maxcine Maxted, NEPA Document Manager
National Nuclear Security Administration
Office of Material Management and Minimization
P.O. Box A, Aiken, SC 29802

Via email to SPDP-EIS@nnsa.doe.gov

Comments on the Draft Environmental Impact Statement for NNSA's Surplus Plutonium Disposition Program (SPDP EIS) (DOE/EIS-0549):

As its Proposed Action, the Department of Energy's semi-autonomous nuclear weapons agency, the National Nuclear Security Administration (NNSA),

"... proposes to implement the dilute and dispose strategy for 34 MT [metric tons] of surplus plutonium to safely and securely disposition the surplus plutonium such that it could never again be readily used in a nuclear weapon. The dilute and dispose strategy includes processing surplus plutonium to plutonium oxide, diluting it with an adulterant to inhibit plutonium recovery, and disposing the resulting CH-TRU [contact-handled transuranic] waste at the WIPP [Waste Isolation Pilot Plant] facility. Studies conducted over the last several years have identified the dilute and dispose strategy as being a technically mature and cost-effective alternative for surplus plutonium disposition." [1]

[Comment 84-1][Response 2.3] Whereas I strongly support making plutonium unavailable for future use in nuclear weapons, **[Comment 84-2][Response 4.4]** NNSA's dilute and dispose strategy is far from the best strategy, for reasons stated in these comments.

[Comment 84-3][Response 27.5] In 2002 DOE terminated the plutonium immobilization option, which was a monumental and costly mistake. DOE instead pursued its Mixed Oxide (MOX) program to fabricate fuel rods from excess plutonium for use in commercial nuclear power plants. This had its own proliferation concerns given that it would have introduced plutonium into the international commercial economy.

However, escalating costs, perhaps as much as \$7-8 billion in misspent taxpayer dollars for which no one has been held accountable, caused DOE to terminate the MOX project at the Savannah River Site (SRS). NNSA is now "repurposing" the canceled MOX Fuel Fabrication Facility into the Savannah River Plutonium Processing Facility for unnecessary expanded plutonium pit production, which itself has more than doubled in estimated costs to \$11 billion and is delayed from 2030 to 2036. All of this is indicative of why DOE and NNSA (and its predecessor DOE Defense Programs) have been on the independent Government Accountability Office's "High Risk List" for project mismanagement and waste of taxpayer's dollars since its inception in 1991.

[Comment 84-4][Response 5.5] NNSA's current scheme under "dilute and dispose" is to transport excess plutonium pits from the Pantex Plant near Amarillo, TX, to the Los Alamos National Laboratory (LANL) for pre-processing into plutonium oxide. Pu oxide would then be shipped to the Savannah River Site (SRS) in South Carolina for dilution with a classified adulterant code named "stardust," and then shipped back across the country for disposal at the Waste Isolation Pilot Plant (WIPP) in southern New Mexico. The problems with this are manifold:

* This scheme involves three legs of transportation, which increase expense and risk.

* **[Comment 84-5][Response 5.5]** Pre-processing into Pu oxide at LANL would take place at the Lab's main plutonium facility known as "PF4." It is an aged facility that was built in the 1970's for research, not production. PF-4 has had a long history of nuclear safety incidences, serious enough to result in the suspension of major plutonium operations for three years. It is still not fully seismically qualified. PF-4 also processes arguably the most dangerous plutonium isotope of all, gamma-emitting Pu-238. **[Comment 84-**

6)[Response 24.2] Finally, in an aggressive program of expansion, PF-4 is the facility planned to produce at least 30 plutonium pits per year by 2030. It is not clear that PF-4 can safely process Pu oxide and Pu-238 while at the same time engaging in expanded plutonium pit production, all in an aging facility with limited working floor space.

* **[Comment 84-7][Response 8.2]** Nor is it clear that WIPP has the capacity for all transuranic radioactive wastes that DOE has proposed to dump there, as the National Academy of Sciences has observed. **[Comment 84-8][Response 8.2]** Moreover, the New Mexico Environment Department is proposing the following new conditions on the state WIPP hazardous permit:

"1) Prioritizing the disposal of legacy DOE wastes at WIPP that are generated from New Mexico clean-up activities.

2. Tying WIPP's closure to the end of the permit term (i.e., 10 years after the new permit is issued) unless the permittees can provide an accurate inventory of all remaining wastes awaiting clean-up and emplacement in WIPP.

3. Revoking the permittees state operating permit should the U.S. Congress change the federal Land Withdrawal Act to allow for increased waste emplacement at WIPP.

4. Suspending any and all waste shipments to WIPP if there are allegations or evidence of a threat to human health or the environment.

5. Requiring the DOE to submit a new annual report detailing steps toward siting another geologic repository in a state other than New Mexico."

* **[Comment 84-9][Response 8.3]** In addition, the NNSA claims that more than half of WIPP's future capacity will be reserved until at least 2050 for new radioactive wastes from expanded plutonium pit production for increased nuclear weapons production. Concerning NMED's fourth point, in February 2014 an improperly prepared waste drum from LANL ruptured, contaminating 21 workers and closing WIPP for just under three years, costing taxpayers ~\$1.5 billion to reopen. The bottom line is that NNSA cannot count on WIPP for its ill-conceived "dilute and dispose" program.

Another Alternative That Must Be Considered

[Comment 84-10][Response 7.3] Again, I strongly support making excess plutonium unavailable for any future nuclear weapons use. In my opinion, the best way to do that is:

* Embed the excess plutonium in a ceramic matrix which can then be securely stored pending permanent disposal. This would eliminate Pu oxide processing at LANL's overworked PF-4 and two legs of potentially dangerous transportation.

* Locate the necessary ceramic operations where the most plutonium is, that is at the Pantex Plant near Amarillo, TX. Ship excess plutonium at SRS to Pantex to consolidate operations.

* Excess plutonium embedded in a ceramic matrix would be stable, safe and secure until such time as the United States finally locates a permanent repository other than WIPP. This could include deep

boreholes that would make any possible future "mining" of plutonium very

difficult. **[Comment 84-11][Response 24.2]** In the meantime, do not increase the existing volume of transuranic wastes through unneeded plutonium pit production.

[Comment 84-12][Response 7.3] I expect NNSA to critically examine and discuss this alternative in its final Surplus Plutonium Disposition Program Environmental Impact Statement, with a complete justification if rejected.

These comments respectfully submitted,

Surplus Plutonium Disposition Program Final Environmental Impact Statement

--Tracy W Powell
30 Tulalip Way
La Conner WA 98257
360-840-3826
For Peace and Love

Correspondence #85

From: Lowell, Randy
Sent: Friday, March 17, 2023 2:37 PM
To: SPDP-EIS@nnsa.doe.gov
Subject: [EXTERNAL]
Attachments: Letter to Maxcine Maxted -Savannah River Site (03242994xD2C78).pdf

Randolph R. Lowell
Burr Forman LLP
115 Fairchild St, Suite 300
Daniel Island, South Carolina 29492

direct 843-973-6801
mobile 803-361-4783
fax 843-805-5735
rlowell@burr.com
Web

The information contained in this email is intended for the individual or entity above. If you are not the intended recipient, please do not read, copy, use, forward or disclose this communication to others; also, please notify the sender by replying to this message, and then delete this message from your system. Thank you.

##Note: Correspondence includes letterhead for the Office of the Attorney General for the State of South Carolina.##

ALAN WILSON
ATTORNEY GENERAL

March 16, 2023

The Honorable Jennifer M. Granholm
The Honorable Jill Hruby
c/o Ms. Maxcine Maxted
NEPA Document Manager
U.S. Dep't of Energy/National Nuclear Security Admin.
Office of Material Management and Minimization
Savannah River Site
P.O. Box A
Bldg. 730-28 , Rm. 328
Aiken, SC 29802

Ms. Maxted,

On behalf of the State of South Carolina, please find comments pertaining to the recently

published draft Environmental Impact Statement (EIS) for the U.S. Department of Energy's (DOE) and National Nuclear Security Administration's (NNSA) *Surplus Plutonium Disposition Program*, dated December 2022 (DOE/EIS-0549) (SPDP Proposal). **[Comment 85-1][Response 5.5]** While the State desires that the Savannah River Site (SRS) receive missions and responsibilities in furtherance of missions for the United States, the State has concerns about the stated mission to dispose of 34 metric tons of surplus weapons-grade plutonium as proposed.

The United States engaged in a bilateral agreement with the Russian Federation for the disposition of 34 metric tons of surplus weapons-grade plutonium. For the United States, that disposition was through the mixed-oxide fuel transformation and disposition. However, the United States has since abandoned that method of disposition and the Russian Federation has suspended that agreement based on the alleged violation by the United States' breach of the agreement.

[Comment 85-2][Response 26.1] Nonetheless, the challenge of the disposition of the 34 metric tons of weapons-grade plutonium remains for the United States. The proposed disposition in the SPDP Proposal is the latest proposal by DOE/NNSA to dispose of weapons-grade plutonium. The challenge for DOE/NNSA is credibility -none of the prior plans have been implemented, or even close. **DOE/NNSA has an appalling track record of not following through on its promises or projects. Its project management is abysmal, and South Carolina's pessimism of DOE/NNSA's ability to implement any proposed alternative is well earned.** See GAO, *Nuclear Weapons: NNSA Does Not Have a Comprehensive Schedule or Cost Estimate for Pit Production Capability*. GAO-23-104661 (Jan. 2023).

[Comment 85-3][Response 6.1] For the "no-action" alternative, DOE/NNSA imposes a significant burden on the State and fails to satisfactorily acknowledge that it has an obligation under its August 28, 2020 Settlement Agreement with the State to remove weapons-grade plutonium (including the existing 9.5 MT of weapons-grade plutonium at SRS) by 2037. This requirement must be acknowledged in any "no-action" alternative as the removal of this tonnage is a standalone obligation that must be fulfilled regardless of any action under the SPDP Proposal. In other words, DOE/NNSA must separately account for the removal of the 9.5 MT of weapons-grade plutonium at SRS to the State by 2037 or pay the requisite penalty under the August 28, 2020 Settlement Agreement.

[Comment 85-4][Response 5.1] To the extent that the DOE/NNSA seeks to import weapons-grade plutonium into South Carolina as part of its preferred alternative, DOE/NNSA must be committed to removing the weapons grade plutonium on a schedule that ensures that South Carolina is not the dumping ground for such plutonium. Stating that "current plans and schedules...may be different from the schedules actually achieved" does not provide any degree or confidence in project implementation. SPDP Proposal, at 4-1. But the spirit of the commitment of the settlement agreement was removal through a realistic and bona fide plan by a date certain. There must be a commitment to remove the weapons-grade plutonium on a timely schedule and a "commitment to the commitment" as evidenced by Congressional appropriations on a recurring basis.

To that end, DOE/NNSA needs a much more thorough explanation of the impacts on South Carolina residents than what is presented in the draft EIS. The current EIS is deficient in fully and satisfactorily addressing the direct and cumulative impacts to South Carolina from the preferred alternative for radioactive, air, water, and solid waste impacts.

[Comment 85-5][Response 27.4] Furthermore, DOE/NNSA is legally obligated to

consult with the South Carolina Governor and South Carolina Attorney General (and their designees) regarding the status or weapons-grade plutonium in South Carolina and at SRS. See, e.g. , 50 U.S.C. § 2567(a). Please contact us immediately to process to respective clearances for the designated personnel to ensure DOE/NNSA is complying with its obligations and so the State can hold DOE/NNSA accountable.

Thank you for the opportunity to comment on the proposed alternatives as it impacts the Savannah River Site and the State of South Carolina.

Sincerely,
~~~  
Alan Wilson

### **Correspondence #86**

From: John Buchser  
Sent: Saturday, March 18, 2023 1:52 PM  
To: SPDP-EIS@nnsa.doe.gov  
Subject: [EXTERNAL] Comments on Surplus Plutonium disposal plan  
Attachments: Plutonium disposal to NNSA.pdf; NNSA pg 1.jpeg; NNSA pg 2.jpeg

Attached as pdf and jpeg (with my signature). Hopefully you can include these on the record for comments on this DEIS.

Thanks,

John Buchser

Northern Group  
Rio Grande Chapter, Sierra Club  
369 Montezuma Ave #575  
Santa Fe, NM 87501  
Jbuchser@comcast.net

March 18, 2023

Ms. Maxcine Maxted, NEPA Document Manager  
National Nuclear Security Administration Office of Material Management and Minimization  
P.O. Box A, Aiken, SC 29802

*Via email to [SPDP-EIS@nnsa.doe.gov](mailto:SPDP-EIS@nnsa.doe.gov)*

Re: DEIS for the Surplus Plutonium Disposition Program

Dear Ms. Maxted,

Thank you for the opportunity to comment on this Draft Environmental Impact Statement. **[Comment 86-1][Response 7.1]** I appreciate the extensive list of options that have been considered in the DEIS. Unfortunately, no discussion beyond a summary was presented. It was a common theme of the many alternatives that they were immature technologies.

## Correspondence

My apologies for the late submission of these comments. I hope that you might still consider adding them to the record as you prepare the final EIS.

The Northern Group of the Rio Grande Chapter encompasses the Northern third of the state of New Mexico. Our territory includes the county of Los Alamos, which contains Los Alamos National Laboratory. We have about 2,500 members. Our biggest concern is for the health and safety of our citizens as well and the plants and animals that we share this beautiful area.

**[Comment 86-2][Response 23.3]** The proposed action includes a lot of movement of plutonium from facility to facility scattered around the US. The production of powdered Pu creates a particularly risky substance due to the ease with which this powder can be distributed into the environment. The long half-life of Pu means that any accidents can lead to permanent damage to the land and water that exceed the potential of adequate clean-up due to monumental cost.

**[Comment 86-3][Response 1.1]** This DEIS does not present to the public the need for the proposed solution, nor the cost involved, nor the timeline to pursue the disposal of 34,000 metric tons of Pu. A much more useful document is the National Academy of Sciences document *Review of DOE's Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant* (2020).

**[Comment 86-4][Response 7.5]** A key question that arises reading the proposed plan is whether you challenge the *requirements of the U.S.-Russian Plutonium Management and Disposition Agreement (PMDA)*, or you fail the promise made to New Mexico when the Waste Isolation Pilot Plant (WIPP) was created [from NAS report]:

"Senator Pete Domenici, who was a central figure in successfully bringing WIPP to New Mexico, wrote in a letter to Secretary of Energy Abraham:

I want to ensure that high level or weapons material wastes can never be simply diluted in order to comply with criteria for WIPP disposal... In fact, dilution of weapons materials, simply in order to facilitate disposal, raises serious questions about our adherence to the same international controls on weapon-related materials that we expect other nations to follow. (Domenici, 2002)"

It is not clear from reviewing the summary of the DEIS why there is an urgent need to dispose of this surplus. There may be technologies developed in the future where this material is found to be useful. We suggest that the final EIS should include an analysis of the long-term storage of this material at Pantex (the no-action alternative). Clearly part of that analysis would need to include probable re-negotiation of treaties with other countries. **[Comment 86-5][Response 9.6]** Another DEIS should be created in about 50 years to assess options at that time.

From a military perspective, the use of nuclear power has proven very useful for aircraft carriers and submarines. **[Comment 86-6][Response 8.1]** The Waste Isolation Pilot Plant was created, and advertised to our state, as a facility to dispose of low-level waste generated by the military of the US. Changing the mission of this facility to host other types of military waste does not fit its original purpose.

**[Comment 86-7][Response 2.3]** The primary premise of this analysis is that the 34 tons of surplus weapons-grade plutonium must be disposed of in order to reduce the risk of it falling into the hands of other countries or terrorists. We understand the importance of

protecting any plutonium from falling into the hands of terrorists or other countries.

In the NAS report, the timeframe of the proposed action is 31 years, with a cost of approximately \$20 billion dollars, which was estimated to be ½ of the nearest disposal alternative (MOX). **[Comment 86-8][Response 24.2]** The DOE appears to be moving aggressively towards making new pits for nuclear bombs. It is not clear from the NAS report nor this DEIS that the facilities at LANL will be ready to pursue both programs simultaneously, safely, and completed within the preferred alternative in the dilute-and-dispose preferred alternative.

Thank you again for the opportunity to comment.

John R. Buchser  
Chair, Northern Group

### **Correspondence #87**

From: yahoo mail  
Sent: Friday, March 17, 2023 10:41 AM  
To: spd-p-eis@nnsa.doe.gov  
Subject: [EXTERNAL] **[Comment 87-1][Response 27.3]** I live in the Milan Superfund site plume area and have observed the reclamation work for 20 years. It is a disaster beyond imagination and should never happen to another community area. The housing blight, polluted aquifers, air, soil, a...

### **Correspondence #88**

From: Marlene Perrotte  
Sent: Sunday, March 19, 2023 8:30 PM  
To: SPDP-EIS@nnsa.doe.gov; Marlene Perrotte  
Subject: [EXTERNAL] SPDP-EIS  
Attachments: SPSP LANL comments.docx

March 19, 2023

Re: Public Comments about the **Surplus Plutonium Disposition Program Draft Environmental Impact Statement (DEIS)** to ship 34 Metric Tons (or more) of surplus plutonium pits from the **Pantex Plant** to **LANL** for processing into powdered plutonium for shipment to the **Savannah River Site** for additional processing before shipment to **WIPP** for disposal.

Dear Ms. Maxted:

My name is Marlene Perrotte, a Catholic Sister of Mercy residing in Albuquerque, NM. I lift up the Nuclear Non-Proliferation Treaty signed in 2012, the Treaty on the Prohibition of Nuclear Weapons of 2017, the possible use of nuclear weapons in the Ukraine-Russia war, and that the US already has at least 15,000 existing pits, as context for my comments. See attached

March 19, 2023

Maxcine Maxted, NEPA Document Manager

Correspondence

NNSA Office of Material Management and Minimization  
Savannah River Site  
P. O. Box A, Bldg. 730-2B, Room 328  
Aiken, SC 29802

Re: Public Comments about the **Surplus Plutonium Disposition Program Draft Environmental Impact Statement (DEIS)** to ship 34 Metric Tons (or more) of surplus plutonium pits from the **Pantex Plant** to **LANL** for processing into powdered plutonium for shipment to the **Savannah River Site** for additional processing before shipment to **WIPP** for disposal.

Dear Ms. Maxted:

My name is Marlene Perrotte, a Catholic Sister of Mercy residing in Albuquerque, NM. I lift up the Nuclear Non-Proliferation Treaty signed in 2012, the Treaty on the Prohibition of Nuclear Weapons of 2017, the possible use of nuclear weapons in the Ukraine-Russia war, and that the US already has at least 15,000 existing pits, as context for my comments.

**[Comment 88-1][Response 5.1]** The Surplus Plutonium Disposition Plan draft Environmental Impact Statement (SPDP DEIS) because it is based on outdated information, data and analyses for the four sites selected for the surplus plutonium disposition plan submitted by the Department of Energy (DOE) and the DOE's semi-autonomous nuclear weapons agency, the National Nuclear Security Administration (NNSA).

\* the Pantex Plant, located north of Amarillo, TX; EIS 1996

\* the Waste Isolation Pilot Plant (WIPP), located in Southeastern NM. EIS 1990

\* Los Alamos National Laboratory (LANL), located in Northern NM; EIS 2008

\* the Savannah River Site (SRS), located in SC; EIS ??

### **Just some examples of the Outdated information and Analysis of LANL**

In 2002 U.S. Senator Pete Domenici of New Mexico, a strong advocate of WIPP from its beginning, cautioned against burial of surplus plutonium at WIPP.

**[Comment 88-2][Response 8.1]** "I want to ensure that high level ... wastes can never be simply diluted in order to comply with criteria for WIPP disposal ... [Such dilution] raises serious questions about our adherence to the same international controls on weapon-related materials that we expect other nations to follow."

**[Comment 88-3][Response 8.1]** DOE/NNSA has violated the social contract with the People of New Mexico regarding WIPP by proposing to keep it open until 2080. The social contract limits the disposal of legacy transuranic (TRU) plutonium waste to no more than 6.2 million cubic feet and limits the operational disposal phase to 25 years followed by closure, which could take 10 years.

**[Comment 88-4][Response 4.2]** DOE/NNSA's plan to dilute the plutonium, turn it into powdered plutonium - the most dangerous form because it is easily inhaled -and dispose of 34 metric tons (MT), and ultimately up to 48.2 MT, or more, of surplus plutonium. It will involve processing large quantities of plutonium and producing plutonium "pits," the cores of nuclear weapons, on an industrial scale. This was the mission of the former Rocky Flats Plant near Denver.

**[Comment 88-5][Response 7.4]** Further, DOE/NNSA must consider alternatives, including



- \* dilution and storage of the plutonium at the Savannah River Site (SRS);
- \* immobilization (encasing the plutonium in glass or ceramic materials prior to disposal) and storage at SRS or at sites other than WIPP; and
- \* consideration of another repository other than WIPP.

**[Comment 88-6][Response 9.6]** DOE/NNSA must conscientiously comply with international standards. It must conform to its own rules to bring the outdated or non-existent environmental impact statements current so that the public has the latest information to review the DOE/NNSA current plans for proposed surplus plutonium disposition. **[Comment 88-7][Response 8.1]** And it must not cast aside long-standing commitments and promises to the People of New Mexico.

**[Comment 88-8][Response 9.6]** DOE/NNSA must retract the SPDP DEIS; must complete the required NEPA analyses for the four proposed sites; must consider all alternatives, including another repository other than WIPP, and immobilization; and compliance with the social contract with the People of New Mexico.

**[Comment 88-9][Response 24.2]** Finally, A comprehensive SPSP DEIS must include the context/ impact of LANL's plutonium factory mission

This mission --unprecedented for LANL since the late 1940s, when it resulted in considerable air, ground, and water pollution --will produce large quantities of nuclear waste. NNSA has made clear that disposal of this new waste will take priority over the long-deferred disposal of about 18,000 drums of legacy nuclear wastes at LANL, currently perched a mile or so west of White Rock and directly adjacent to and above a Native American sacred area. This expansion will have great regional and local impacts of many kinds, as Triad managers have said on multiple occasions to potential subcontractors and local governments.

**[Comment 88-10][Response 9.6]** The notion that comprehensive environmental analysis is not needed for this gigantic program is a staggering insult to New Mexicans and an affront to any notion of environmental law and science. According to the Department of Energy's own National Environmental Policy Act (NEPA) implementation regulations, DOE must prepare a new or supplemental site-wide environment impact statement for its major sites when there are "significant new circumstances or information relevant to environmental concerns." The last LANL SWEIS was completed in 2008 and badly outdated and woefully inadequate. It did not include the new **Surplus Plutonium Disposition Program nor the pit production mission.**

**[Comment 88-11][Response 24.2]** "The most reasonable alternatives were omitted in this analysis, including the option of not having an industrial pit mission at LANL **[Comment 88-12][Response 5.5]** --especially not in the aging, inadequate, main plutonium facility and especially not using multiple production shifts, which is the only way LANL can do this mission.

In taking this path, NNSA is proceeding directly against the advice of its own staff and of former NNSA Administrator Frank Klotz, who early in the Trump Administration officially forbade the use of PF-4 for the enduring pit mission.

**[Comment 88-13][Response 24.2]** In its new strategy NNSA is also bucking congressionally-mandated advice from the Institute of Defense Analyses, which warned in stark language against trying to run PF-4 with two production shifts, calling it "very high risk" and saying doing so would jeopardize LANL's basic pit capabilities as well as LANL's

other plutonium programs.

LANL's planned expansion includes the new pit mission but also goes far beyond it. **By narrowing the scope of comparison with the 2008 SWEIS, NNSA is hiding the total magnitude of what is planned.** NNSA is shielding its plans for LANL from environmental review, including major off-site impacts.

**[Comment 88-14][Response 27.5]** NNSA has not clearly defined the scope version of LANL's expansion. Despite direct congressional requirements to produce detailed pit production plans, we know of no such plan --indeed we know of no published plan for LANL's future at all. LANL used to produce such plans annually. Doing so is still a contract requirement. Now, Triad and NNSA have presented no resourced plan for expansion and no site plan. There is no state, local or tribal heads-up or involvement. **Triad and NNSA have presented no significant information about the new facilities they hope to build, which seem to change from year to year.** *NNSA statements and congressional reports suggest no actual, signed NNSA plan actually exists.*

**[Comment 88-15][Response 24.2]** **In 2008, NNSA said LANL was not the best place for the new pit manufacturing mission. Then in 2019, congressionally-mandated independent reviewers told NNSA it could be disastrous ("very high risk") to operate LANL's old, cramped facilities on a 24/7 basis.** Yet that is precisely what NNSA chose to do -and now NNSA says that any alternative is "unreasonable." NNSA is saying that the professional advice of the highly-regarded Institute for Defense Analyses is unreasonable.

**[Comment 88-16][Response 24.2]** A Notice by the Energy Department on 09/02/2020 **Amended Record of Decision for the Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory, Los Alamos, NM**

"NNSA is announcing this amendment to the December 19, 2008, Record of Decision (ROD) for the Complex Transformation Supplemental Programmatic Environmental Impact Statement- Operations Involving Plutonium, Uranium, and the Assembly and Disassembly of Nuclear Weapons (Complex Transformation SPEIS-2008 Programmatic ROD)."

In this Amended ROD, NNSA just announces, without any current SPEIS changes of 2008, Its programmatic decision to implement elements of a Modified Distributed Centers of Excellence (DCE). Alternative whereby Los Alamos National Laboratory (LANL) will produce a minimum of 30 war reserve pits per year for the national pit production mission during 2026 and implement surge efforts to exceed 30 pits up to 80 pits per year as needed. NNSA will implement this decision without construction of the Chemistry and Metallurgy Research and Replacement Nuclear Facility (CMRR- NF).

**[Comment 88-17][Response 9.6]** **NNSA limits public discussion to what it has already illegally decided to do.**

By calling, shipping 34 Metric Tons (or more) of surplus plutonium pits from the **Pantex Plant to LANL** For processing into powdered plutonium as well as the plutonium pit factory, these unprecedented expansions "no action," and a priori eliminating any alternative to it, The most current information and analysis must be required for the SPDP-DEIS. NNSA limits public discussion to what it has already illegally decided to do.

**[Comment 88-18][Response 9.6]** WIPP's mission is to store and isolate only transuranic

waste. To dispose of plutonium waste is an unprecedented expansion of its mission and the most current comprehensive DEIS is required as well. The most current comprehensive DEIS is also required for the Savannah River Site. The environmental impact studies of the whole transportation system require a comprehensive impact study as well.

**[Comment 88-19][Response 8.5]** We cannot continue to produce uranium and plutonium waste etc. without a repository other than WIPP. These are moral and ethical imperatives that must be resolved. Until the nuclear repository is resolved all production of weapons must cease.

Sincerely,

Sister Marlene Perrotte  
1004 Major Avenue NW  
Albuquerque, NM  
87107

### **Correspondence #89**

From: Leona Morgan  
Sent: Monday, March 20, 2023 4:10 PM  
To: SPDP-EIS@nnsa.doe.gov  
Subject: [EXTERNAL] Public Comments re: Surplus Plutonium Disposition Program DEIS

March 20, 2023

By email to: SPDP-EIS@nnsa.doe.gov  
Maxcine Maxted, NEPA Document Manager  
NNSA Office of Material Management and Minimization  
Savannah River Site  
P. O. Box A, Bldg. 730-2B, Room 328  
Aiken, SC 29802

Re: Public Comments about the Surplus Plutonium Disposition Program Draft Environmental Impact Statement (DEIS) to ship 34 Metric Tons (or more) of surplus plutonium pits from the Pantex Plant to LANL for processing into powdered plutonium for shipment to the Savannah River Site for additional processing before shipment to WIPP for disposal

DOE Must Retract the DEIS and Complete New EIS Processes for the Four Sites

Dear Ms. Maxted:

Please accept my comments as the 2023 New Mexico Legislature was in session and just ended on Saturday, March 18, 2022. There were nuclear matters of great import occurring there as well which makes it difficult to address multiple nuclear concerns to the residents of New Mexico simultaneously.

**[Comment 89-1][Response 9.6]** Furthermore, I am unable to provide informed public comments about the Surplus Plutonium Disposition Plan draft Environmental Impact Statement (SPSP DEIS) because it is based on outdated information, data and analyses for the four sites selected for the surplus plutonium disposition plan submitted by the Department of Energy (DOE) and the DOE's semi-autonomous nuclear weapons agency, the

Correspondence

National Nuclear Security Administration (NNSA). The four sites are:

the Pantex Plant, located north of Amarillo, TX;  
Los Alamos National Laboratory (LANL), located in Northern NM;  
the Savannah River Site, located in SC; and  
the Waste Isolation Pilot Plant (WIPP), located in Southeastern NM.

**[Comment 89-2][Response 9.6]** DOE/NNSA must retract the SPSP DEIS and complete a new EIS process for each of the four sites where DOE plan to dilute the plutonium, turn it into powdered plutonium - the most dangerous form because it is easily inhaled -and dispose of 34 metric tons (MT), and ultimately up to 48.2 MT or more, of surplus plutonium.

**[Comment 89-3][Response 8.1]** In the current climate of heightened awareness of nuclear weapons and materials, compliance with international controls is required. But non-compliance is exactly what DOE proposes.

**[Comment 89-4][Response 7.4]** Further, DOE/NNSA must consider alternatives, including dilution and storage of the plutonium at the Savannah River Site (SRS); immobilization (encasing the plutonium in glass or ceramic materials prior to disposal) and storage at SRS or sites other than WIPP; and consideration of another repository other than WIPP.

**[Comment 89-5][Response 8.1]** DOE/NNSA violates the social contract with the People of New Mexico regarding WIPP. That social contract limits the disposal of legacy transuranic (TRU) plutonium waste to no more than 6.2 million cubic feet and limits the operational disposal phase to 25 years followed by closure, which could take 10 years.

**[Comment 89-6][Response 9.6]** DOE/NNSA must conscientiously comply with international standards. It must conform to its own rules concerning the bringing the outdated or non-existent environmental impact statements current so that the public has the latest information to review the DOE/NNSA current plans for surplus plutonium disposition. **[Comment 89-7][Response 8.1]** And it must not cast aside long-standing commitments and promises to the People of New Mexico.

**[Comment 89-8][Response 9.6]** DOE/NNSA must retract the SPDP DEIS; must complete the required NEPA analyses for the four proposed sites; must consider all alternatives, including another repository other than WIPP and immobilization; and compliance must comply with the social contract with the People of New Mexico.

**[Comment 89-9][Response 27.9]** Lastly, how can DOE, NNSA or any of the above 4 facilities even continue nuclear weapons production now that they have been deemed ILLEGAL according to the United Nations Treaty on the Prohibition of Nuclear Weapons (TPNW) which went into force in January 2022?

Sincerely,

Leona Morgan  
Albuquerque, NM Resident

## Correspondence #90

*##Note: Correspondence includes letterhead for the New Mexico Environmental Department.##*

February 13, 2023

Ms. Maxcine Maxted, NEPA Document Manager  
National Nuclear Security Administration,  
Office of Material Management and Minimization  
P.O. Box A, Aiken, SC 29802

Submitted electronically to: SPDP-EIS@nnsa.doe.gov

RE: Draft Environmental Impact Statement for Plutonium Surplus

Dear Maxcine Maxted,

On behalf of the New Mexico Environment Department (NMED), attached please find our comments for the Draft Environmental Impact Statement (EIS) regarding surplus plutonium at Los Alamos National Laboratory (LANL) and the Waste Isolation Pilot Plant (WIPP).

All activities at LANL and WIPP are of importance to the residents of New Mexico, and strong intergovernmental coordination is essential to ensure continued progress in addressing potential impacts to human health and the environment from ongoing and proposed activities at LANL and WIPP. Strong coordination and rigorous public process are also imperative in addressing LANL's legacy contamination, nuclear safety, and the possibility of increased plutonium pit production and disposal in New Mexico.

We are the only state in the country to have taken on the risk associated with disposal of nuclear waste, hosting the WIPP in southern New Mexico for disposal of transuranic waste. The U.S. Department of Energy (DOE) plan for surplus plutonium disposition includes considerable time on highways for trucks carrying radioactive material, including through New Mexico at least twice, increasing the risk to New Mexicans and our resources.

NMED offers important comments in the form of concerns regarding the sourcing, hauling and disposing of nuclear waste as it pertains to treatment and storage, as outlined in the attachment for the National Nuclear Security Administration (NNSA) to evaluate. Thank you for providing the opportunity to comment.

Sincerely,

James C. Kenney  
Cabinet Secretary

Attachment (1)

Cc: Courtney Kerster, Senior Advisor, Office of Governor Michelle Lujan Grisham

## Attachment

**New Mexico Environment Department Comments on the Department of Energy National Nuclear Security Administration Draft Environmental Impact Statement**

**for the Surplus Plutonium Disposition Program, DOE/EIS-0549**

**[Comment 90-1][Response 4.4] 1. NMED strongly objects that both the Preferred Alternative and the No Action Alternative in the Draft EIS use the dilute and dispose strategy and both alternatives propose pit and non-pit surplus plutonium shipments to WIPP. Of the options considered, NMED prefers the "All SRS [Savannah River Site] Sub-Alternative" so LANL is not implicated.**

a. The DOE's Preferred Alternative is to use the dilute and dispose strategy for 34 MT of surplus plutonium comprised of both pit and non-pit plutonium. Two of the five DOE sites proposed for these activities are LANL and WIPP.

b. The proposal to treat or process the plutonium at LANL prior to shipping to WIPP is problematic on multiple levels. Changes to existing processes can potentially require modifications to existing environmental permits or necessitate additional environmental permits. The introduction of additional processes involving plutonium waste increase the risk of air, surface water, groundwater and land contamination.

**[Comment 90-2][Response 8.2] c.** Recognizing that space in the WIPP is limited by disposal volumes authorized by federal law and the state hazardous waste permit, NNSA must account for and reserve space in the WIPP for environmental clean-up of legacy wastes generated in New Mexico.

**[Comment 90-3][Response 8.1] d.** The WIPP mission is limited to disposal of defense generated TRU waste from DOE sites around the country. DOE has always described TRU waste as consisting of clothing, tools, rags, residues, debris, soil, and other items contaminated with small amounts of plutonium and other man-made radioactive elements. However, the large amounts of plutonium involved in this program would no longer enable waste sent to WIPP to be described in such a manner without a major caveat, a problem we feel goes against the social contract DOE made with the people of New Mexico regardless of whether the surplus plutonium waste stream strictly meets the permit's waste acceptance criteria.

e. DOE revised its interpretation of the definition of "high level waste" and developed a "dilute and dispose" program to ship surplus plutonium from South Carolina to WIPP in a potential manipulation of NMED's waste acceptance criteria as found in the state operating permit. In another example, DOE EM expressed interest in sending Americium-241 to WIPP, which is currently not allowed under the federal Land Withdrawal Act. Finally, DOE will soon begin operating a nuclear waste treatment plant in Idaho, reclassifying a high-level liquid waste stream as a solid waste, which DOE officials have noted could be diluted to simply meet WIPP permit requirements.

**[Comment 90-4][Response 5.4] f.** NMED recommends the "All SRS Sub-Alternative." In the All SRS Sub-Alternative, NNSA would use only capabilities at SRS. Under this sub-alternative, NNSA analyzes the impacts of shipping 34 MT of pit plutonium from Pantex to SRS and the disassembly and processing of the 34 MT of pit plutonium in a new capability installed at SRS in either K-Area or F-Area. In the All SRS Sub-Alternative, NNSA also analyzes the subsequent shipment of 8 the decontaminated and oxidized HEU to Y-12 as well as the impacts of processing 7.1 MT of non-pit surplus plutonium at SRS using the same new capability used for PDP. The resulting plutonium oxide would remain at SRS for dilution and C&P before shipment to and disposal at the WIPP facility as CH11 TRU waste.

**2. DOE must quantify the remaining legacy, or stored, waste at LANL and set aside the volume of WIPP space necessary to accommodate LANL wastes.**

**[Comment 90-5][Response 8.5] a.** Currently, DOE and the National Nuclear Safety Administration (NNSA) rely on WIPP for waste streams generated from DOE EM and NNSA activities. However, WIPP is 41% full, which means DOE and NNSA will need to plan,

design, and build another geological repository elsewhere in the United States to continue to support its domestic operations. While DOE initiates that effort, the remaining 59% of WIPP capacity will continue to shrink.

**[Comment 90-6][Response 8.4]** b. DOE must calculate the volume of legacy, or stored, waste at LANL, and a corresponding percentage of space held at WIPP for this waste. This is especially important given that the Trump Administration entered into settlement agreements with other states that prioritized their shipments to WIPP over shipments from LANL.

c. NMED believes WIPP should prioritize emplacement of waste from LANL. Any new proposed or increased waste streams from other states should not be considered until a clear path forward has been identified and adequately funded for waste at LANL, with a particular emphasis on legacy waste clean-up.

### **3. DOE and NNSA failed to contemplate the successful emplacement of TRU waste at the WIPP due to limitations of New Mexico transportation infrastructure (i.e., highways and roads).**

a. **[Comment 90-7][Response 23.4]** The shipments of waste travel across New Mexico's designated WIPP highways. Due to the significant industrialization in Southeast New Mexico, there has been a substantial increase in traffic and degradation of road conditions. Further, there has been a significant increase in motor vehicle crashes along designated WIPP highways. The severity of such motor vehicle crashes has also increased due to the volume of large trucks using these roadways. The greatest concentration of crashes involving heavy duty trucks is along WIPP designated routes due to road conditions. While the EIS recognizes the potential for transportation cumulative impacts, it estimates the additional increase in traffic fatalities over a 30-year period at less than 1. Without further support for this estimate, NMED disputes its accuracy.

**[Comment 90-8][Response 27.11]** b. The DOE and NNSA acknowledge that a major investment in facility maintenance and infrastructure repair recapitalization and modernization is necessary to prevent costly failures and to continue to safely perform mission requirements. Just as the WIPP facility has exceeded its design life and needs regular upgrades and maintenance (DOE *Carlsbad Field Office Strategic Plan 2019-2024*, August 2019), the roads in New Mexico also need regular upgrades and maintenance to ensure safe transport of shipments to WIPP and prevent catastrophic consequences to human health and the environment.

c. To mitigate risk, the DOE and NNSA must reinstate funding to the State of New Mexico as authorized in Section 15 of the WIPP Land Withdrawal Act (LWA) and support an annual appropriation of \$37 million in federal fiscal year 2024, subsequently indexed for inflation for the remaining useful life of the WIPP. This LWA funding is a necessary infrastructure investment to minimize risk of radiological and hazardous waste releases that could impact public health and safety of New Mexicans, as well as the environment.

**[Comment 90-9][Response 9.6]** d. Further, the Resource Conservation and Recovery Act (RCRA) and New Mexico's Hazardous Waste Act (HWA) gives NMED the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, *transportation*, treatment, storage, and disposal of hazardous waste [emphasis added]. As DOE states in the draft EIS, the Federal Facility Compliance Act of 1992 waives sovereign immunity for federal facilities under RCRA and requires DOE to conduct an inventory and develop a treatment plan for mixed wastes. The WIPP is permitted by NMED pursuant to federal and state law for the management of mixed wastes.

e. The DOE and NNSA failed to quantify the risk, impacts, and costs associated with the successful implementation of the Proposed Action. Prior to implementation, and increasing shipments in New Mexico on designated WIPP highways, NMED requests the DOE and NNSA conduct such an analysis and share the results with the Governor of New Mexico, Secretary

of the New Mexico Department of Transportation, the Secretary of the Energy, Minerals and Natural Resources Department, and the Secretary of the NMED.

**4. New Mexico water sources and water supply systems must be protected from accidental releases of radioactive materials that may occur along transportation routes in the state.**

**[Comment 90-10][Response 23.2]**

- a. TRU waste materials would be shipped along U.S. Highway 285, state highways, and local roads to the WIPP in southeastern New Mexico.
- b. Additionally, plutonium, beryllium, and low-level radioactive wastes could potentially be transported between South Carolina and LANL, Nevada National Security Site, and/or a commercial facility in Utah along Interstates 25 and 40, U.S. Highway 285, and several state highways and local roads. In New Mexico, there are 156 regulated public surface or groundwater systems (PWS) located within one mile of these transportation corridors.
- c. If the Proposed Action is implemented, it is critical that the packaging and transport regulations and emergency response protocols described in Appendix E of the draft EIS are followed to the greatest extent possible in order to protect water sources and water supply systems from accidental releases of radioactive materials.

**5. Given the disproportionate burden of public health and environmental risks that the State of New Mexico bears related to nuclear energy and weapons programs, every aspect of the Proposed Action must provide the highest level of protection to New Mexico citizens, including use of best available technology in these safeguards.**

a. **[Comment 90-11][Response 22.1]** DOE stated: "No disproportionately high and/or adverse impacts on minority or low-income populations affected by activities at either the LANL or SRS sites are expected" but did not provide adequate quantitative information to support this conclusion, including the use of an objective tool, like U.S. EPA's EJ Screen tool.

b. **[Comment 90-12][Response 24.1]** Uranium mining and milling, legacy contamination at national laboratories, disposal of defense waste at WIPP, and the proposed indefinite storage of commercial spent nuclear fuel at a private facility create risks to public health and the environment in the State of New Mexico that are disproportionately greater than such risks to the general population of the United States. This most recent Proposed Action, for example, includes transport of plutonium metal from Los Alamos National Laboratory to the SRS, and the transport of plutonium pit waste from SRS back to New Mexico for disposal at the WIPP.

c. **[Comment 90-13][Response 22.1]** New Mexico contains significantly greater percentages of Hispanic or Latino and American Indian residents, as well as people living in poverty, than in the United States general population (see Table 1: New Mexico Demographics Data, <https://www.census.gov/quickfacts/fact/table/US/PST045219>).

*##Note: Commenter included a table titled, "Table 1: New Mexico Demographics Data," that is not depicted here.##*

d. **[Comment 90-14][Response 22.1]** Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, states, "... each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations of the United States."

e. The draft EIS fails to demonstrate that the Proposed Action will achieve environmental



justice for the high percentage of minority and low-income populations in the State of New Mexico that have already suffered disproportionately high adverse human health and environmental effects of U.S. Department of Energy programs. Environmental justice deficiencies in the draft EIS include: i. Failure to identify and discuss vulnerable populations in New Mexico; ii. Failure to identify and evaluate the cumulative history of adverse human health and environmental effects on New Mexico's vulnerable populations; iii. Failure to evaluate release scenarios from the Proposed Action, such as transportation accidents, that might adversely affect vulnerable populations in New Mexico; and iv. Repeated, yet unsubstantiated, assertions that cumulative environmental impacts from the Proposed Action would be either not notable or not expected. f. The environmental justice deficiencies in the draft EIS must be corrected by preparation of a proper risk assessment that evaluates all potential release scenarios and that quantifies incident-specific and cumulative impacts to vulnerable populations in New Mexico. In accordance with Executive Order 12898, every aspect of the Proposed Action must provide the highest level of protection to New Mexico citizens, including use of best available technology in these safeguards.