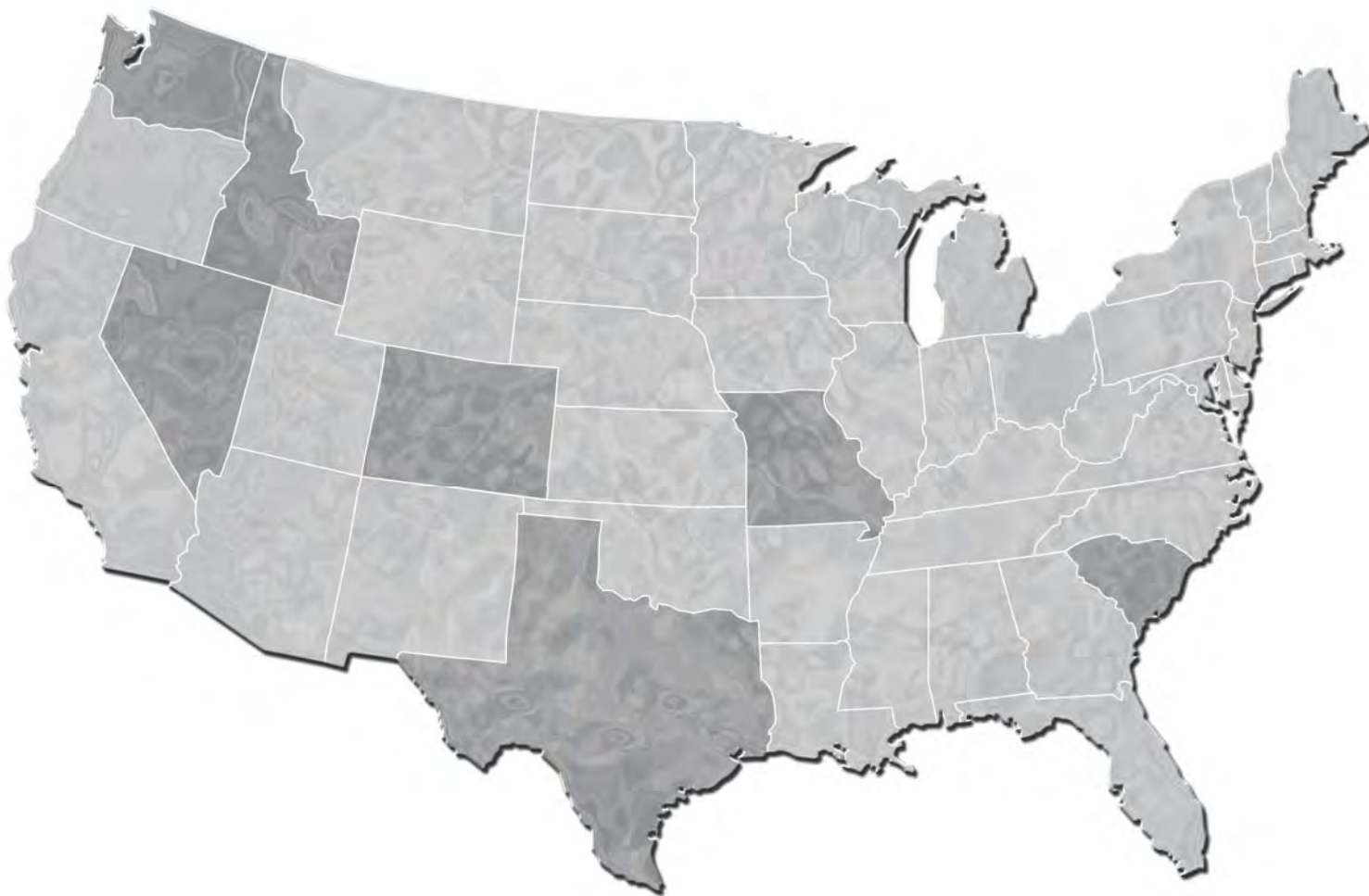


Final
**LONG-TERM MANAGEMENT AND
STORAGE OF ELEMENTAL MERCURY**
Environmental Impact Statement



Volume 2
Comment Response Document

U.S. Department of Energy
Office of Environmental Management
Washington, DC



AVAILABILITY OF THIS
*FINAL LONG-TERM MANAGEMENT AND
STORAGE OF ELEMENTAL MERCURY
ENVIRONMENTAL IMPACT STATEMENT*

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Cooperating Agencies: U.S. Environmental Protection Agency (EPA)
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Title: *Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (Mercury Storage EIS)* (DOE/EIS-0423)

Candidate Locations for Storage Facility(ies): Colorado, Idaho, Missouri, Nevada, South Carolina, Texas, Washington

Contacts: For copies of this final environmental impact statement (EIS), visit DOE's National Environmental Policy Act (NEPA) website at <http://www.nepa.energy.gov> or contact David Levenstein at the address below.

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Abstract: Pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414), DOE was directed to designate a facility or facilities for the long-term management and storage of elemental mercury generated within the United States. Therefore, DOE has analyzed the storage of up to 10,000 metric tons (11,000 tons) of elemental mercury in a facility(ies) constructed and operated in accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (74 FR 31723). DOE prepared this *Final Mercury Storage EIS* in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 et seq.), the Council on Environmental Quality (CEQ) implementing regulations (40 CFR 1500-1508), and DOE's NEPA implementing procedures (10 CFR 1021) to evaluate reasonable alternatives for a facility(ies) for the long-term management and storage of elemental mercury. This *Final Mercury Storage EIS* analyzes the potential environmental, human health, and socioeconomic impacts of elemental mercury storage at seven candidate locations: Grand Junction Disposal Site near Grand Junction, Colorado; Hanford Site near Richland, Washington; Hawthorne Army Depot near Hawthorne, Nevada; Idaho National Laboratory near Idaho Falls, Idaho; Kansas City Plant in Kansas City, Missouri; Savannah River Site near Aiken, South Carolina; and Waste Control Specialists, LLC, site near Andrews, Texas. As required by CEQ NEPA regulations, the No Action Alternative was also analyzed as a basis for comparison. DOE intends to decide (1) where to locate the elemental mercury storage facility(ies) and (2) whether to use existing buildings, new buildings, or a combination of existing and new buildings. DOE's Preferred Alternative for the long-term management and storage of mercury is the Waste Control Specialists, LLC, site near Andrews, Texas.

Public Comments: In preparing this final EIS, DOE considered comments received during the scoping period (July 2, 2009, through August 24, 2009) and public comment period on the draft EIS (January 29, 2010, through March 30, 2010). Comments on the draft EIS were accepted during the 60-day period following publication of (EPA's) Notice of Availability in the *Federal Register*. All comments, including late comments to the extent practicable, were considered during preparation of this final EIS. Volume 2 contains the comments received during the public comment period on the draft EIS and DOE's responses to these comments.

This final EIS contains revisions and new information based in part on comments received on the draft EIS. Vertical change bars in the margins indicate the locations of these revisions and new information. Editorial corrections are not indicated by change bars. Appendix H and Appendix I in Volume I and the comment response document in Volume II are entirely new parts of this final EIS and therefore do not contain change bars.

DOE will consider the environmental impact information presented in this final EIS, as well as other factors (e.g., cost, schedule, strategic objectives, and public comments) when making long-term mercury management and storage decisions. As required by CEQ NEPA regulations (40 CFR 1506.10), DOE will make a decision on the proposed action no sooner than 30 days after publication of EPA's Notice of Availability of this *Final Mercury Storage EIS* in the *Federal Register*. DOE will announce its decision in a Record of Decision published in the *Federal Register*.

Table of Contents

List of Figures	ii
List of Tables	ii
List of Acronyms and Abbreviations	iii
Measurement Units	iv
Conversions	v
List of Commentors	vii
Section 1 Overview of the Public Comment Process	1-1
1.1 Organization of This Comment Response Document	1-1
1.2 Public Comment Process.....	1-2
1.3 Public Hearings	1-5
1.4 U.S. Environmental Protection Agency Rating	1-5
Section 2 Major Issues.....	2-1
2.1 NEPA Scope and Process.....	2-1
2.2 The Mercury Export Ban Act of 2008	2-3
2.3 Selection of Alternatives and the Preferred Alternative(S).....	2-4
2.4 Mercury Inventory and Sources	2-7
2.5 Affected Environment.....	2-8
2.6 Environmental Consequences	2-10
2.7 Human Health Impacts and Accident Analysis.....	2-12
2.8 Transportation	2-14
2.9 Cost	2-16
Section 3 Public Comments and DOE Responses	3-1
Individual Commentors.....	3-3
Campaign A	3-164
Campaign B.....	3-166
Campaign C.....	3-174
Oral Comments Presented at the Public Hearing and DOE Responses	
Grand Junction, Colorado	3-176
Hawthorne, Nevada	3-179
Idaho Falls, Idaho	3-183
Kansas City, Missouri	3-193
Portland, Oregon	3-219
Richland, Washington	3-248
North Augusta, South Carolina	3-253
Eunice, New Mexico	3-263
Andrews, Texas.....	3-270
Section 4 References	4-1

List of Figures

Figure 1-1. Comment Response Process 1-4

List of Tables

Table 1-1. Comment Document Submission Method 1-3
Table 1-2. Public Hearing Locations and Attendance..... 1-5

List of Acronyms and Abbreviations

AEGL	Acute Exposure Guideline Level
CRD	comment response document
DOE	U.S. Department of Energy
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
GJDS	Grand Junction Disposal Site
Hanford	Hanford Site
INL	Idaho National Laboratory
<i>Interim Guidance</i>	<i>U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury</i>
KCP	Kansas City Plant
<i>Mercury Storage EIS</i>	<i>Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement</i>
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SL	severity level
SRS	Savannah River Site
TEEL	Temporary Emergency Exposure Limit
WCS	Waste Control Specialists, LLC, site
Y-12	Y-12 National Security Complex

MEASUREMENT UNITS

The principal measurement units used in this *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (Mercury Storage EIS)* are SI units (the abbreviation for the *Système International d'Unites*). The SI system is an expanded version of the metric system that was accepted in 1966 in Elsinore, Denmark, as the legal standard by the International Organization of Standardization. In this system, most units are made up of combinations of seven basic units, of which length in meters, mass in kilograms, and volume in liters are of most importance in this *Mercury Storage EIS*. Exceptions are radiological units that use the English system (e.g., rem, millirem).

SCIENTIFIC (EXPONENTIAL) NOTATION

Numbers that are very small or very large are often expressed in scientific, or exponential, notation as a matter of convenience. For example, the number 0.000034 may be expressed as 3.4×10^{-5} or 3.4E-05, and 65,000 may be expressed as 6.5×10^4 or 6.5E+04. In this *Mercury Storage EIS*, numerical values that are less than 0.001 or greater than 9,999 are generally expressed in scientific notation, i.e., 1.0×10^{-3} and 9.9×10^3 , respectively.

Multiples or submultiples of the basic units are also used. A partial list of prefixes that denote multiples and submultiples follows, with the equivalent multiplier values expressed in scientific notation.

Prefix	Symbol	Multiplier	
atto	a	0.000 000 000 000 000 001	1×10^{-18}
femto	f	0.000 000 000 000 001	1×10^{-15}
pico	p	0.000 000 000 001	1×10^{-12}
nano	n	0.000 000 001	1×10^{-9}
micro	μ	0.000 001	1×10^{-6}
milli	m	0.001	1×10^{-3}
centi	c	0.01	1×10^{-2}
deci	d	0.1	1×10^{-1}
deka	da	10	1×10^1
hecto	h	100	1×10^2
kilo	k	1,000	1×10^3
mega	M	1,000,000	1×10^6
giga	G	1,000,000,000	1×10^9
tera	T	1,000,000,000,000	1×10^{12}
peta	P	1,000,000,000,000,000	1×10^{15}
exa	E	1,000,000,000,000,000,000	1×10^{18}

The following symbols are occasionally used in conjunction with numerical expressions:

- < less than
- \leq less than or equal to
- > greater than
- \geq greater than or equal to

CONVERSIONS

English to Metric			Metric to English		
Multiply	by	To get	Multiply	by	To get
Area			Area		
square inches	6.4516	square centimeters	square centimeters	0.155	square inches
square feet	0.092903	square meters	square meters	10.7639	square feet
square yards	0.8361	square meters	square meters	1.196	square yards
acres	0.40469	hectares	hectares	2.471	acres
square miles	2.58999	square kilometers	square kilometers	0.3861	square miles
Length			Length		
inches	2.54	centimeters	centimeters	0.3937	inches
feet	30.48	centimeters	centimeters	0.0328	feet
feet	0.3048	meters	meters	3.281	feet
yards	0.9144	meters	meters	1.0936	yards
miles	1.60934	kilometers	kilometers	0.6214	miles
Temperature			Temperature		
degrees Fahrenheit	Subtract 32, then multiply by 0.55556	degrees Celsius	degrees Celsius	Multiply by 1.8, then add 32	degrees Fahrenheit
Volume			Volume		
fluid ounces	29.574	milliliters	milliliters	0.0338	fluid ounces
gallons	3.7854	liters	liters	0.26417	gallons
cubic feet	0.028317	cubic meters	cubic meters	35.315	cubic feet
cubic yards	0.76455	cubic meters	cubic meters	1.308	cubic yards
Weight			Weight		
ounces	28.3495	grams	grams	0.03527	ounces
pounds	0.45360	kilograms	kilograms	2.2046	pounds
short tons	0.90718	metric tons	metric tons	1.1023	short tons

LIST OF COMMENTORS

Public Officials, Organizations, and Interest Groups

A	
ADAMS, CAROL T., CO-CHAIR Environmental Management Commission of Kansas City Missouri3-22	FRANSEN, CURT, DEPUTY DIRECTOR State of Idaho, Department of Environmental Quality3-33
B	FUNKHOUSER, MARK, MAYOR Office of the City Council, Kansas City, Missouri.....3-16
BENNET, MICHAEL F. United States Senator3-31	G
BERKEBILE, BOB, CO-CHAIR Environmental Management Commission of Kansas City Missouri3-22	GARZA, J. Waste Control Specialists.....3-286
BROMM, SUSAN E., DIRECTOR, OFFICE OF FEDERAL ACTIVITIES U.S. Environmental Protection Agency3-59	H
C	HADDEN, KAREN, EXECUTIVE DIRECTOR Sustainable Energy and Economic Development (SEED) Coalition Campaign B.....3-1663-272, 3-285
COGHLAN, JAY Nuclear Watch New Mexico3-128	HARRISON, JIM, DIRECTOR, INTERGOVERNMENTAL RELATIONS DIVISION Texas Commission on Environmental Quality....3-24
COLORADO BASIN ROUNDTABLE Jim Pokrandt, Chair.....3-126	HEART OF AMERICA NORTHWEST Gerry Pollet3-233
COLORADO COUNTIES, INC. David Foy, President3-96	I
COLORADO STATE, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WILDLIFE Ron Velarde, NW Regional Manager.....3-144	IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY Curt Fransen, Deputy Director3-33 Erick Neher3-188
D	J
DUNNING, DIRK Oregon State, Department of Energy3-221	JOLLY, CATHY, COUNCILWOMAN, 6TH DISTRICT-AT-LARGE Office of the City Council, Kansas City, Missouri.....3-16, 3-196
E	K
ENVIRONMENTAL MANAGEMENT COMMISSION OF KANSAS CITY MISSOURI Bob Berkebile, Co-Chair.....3-22 Carol T. Adams, Co-Chair.....3-22	KANSAS CITY MISSOURI, ENVIRONMENTAL MANAGEMENT COMMISSION Carol T. Adams, Co-Chair3-22 Bob Berkebile, Co-Chair.....3-22
EUNICE, NEW MEXICO Matt White, Mayor3-265 Curtis Schrader, City Manager3-264	KANSAS CITY, MISSOURI, OFFICE OF THE CITY COUNCIL Mark Funkhouser, Mayor.....3-16 Cathy Jolly, Councilwoman, 6th District-At-Large.....3-16, 3-196 John A. Sharp, Councilman, 6th District.3-16, 3-199
F	KANSAS CITY, MISSOURI, OFFICE OF THE CITY MANAGER Dennis Murphey, Chief Environmental Officer3-20, 3-208 Troy M. Schulte, Interim City Manager.....3-20
FOY, DAVID, PRESIDENT Colorado Counties, Inc.....3-96	

KOVAC, SCOTT
 Nuclear Watch New Mexico3-128

KUCERA, CHARLOTTE
 U.S. Fisheries and Wildlife,
 Austin Field Office3-15

L

LINDSAY, STEPHANIE, FOR
 Marlborough Community Coalition.....3-98

LOC CITIZENS’ ADVISORY PANEL
 Norman A. Mulvenon, Chair.....3-97

LOTT, EARL, DIRECTOR, WASTE PERMITS DIVISION
 Texas Commission on Environmental Quality..3-161

M

MARLBOROUGH COMMUNITY COALITION
 submitted by Stephanie Lindsay3-98

MELINCHUK, ROSS, DEPUTY EXECUTIVE DIRECTOR
 Texas Parks and Wildlife Department.....3-110

MISSOURI, DEPARTMENT OF NATURAL RESOURCES
 Mark N. Templeton, Director.....3-135

MULVENON, NORMAN A., CHAIR
 LOC Citizens’ Advisory Panel3-97

MURPHEY, DENNIS, CHIEF ENVIRONMENTAL OFFICER
 Kansas City, Missouri, Office of the
 City Manager.....3-20, 3-208

N

NEHER, ERICK
 Idaho Department of Environmental Quality....3-188

NEWMAN, GEORGE, CHAIR
 Pitkin County Board of County
 Commissioners3-35

NEZ PERCE TRIBAL EXECUTIVE COMMITTEE
 Samuel N. Penney, Chairman.....3-3, 3-41

NUCLEAR WATCH NEW MEXICO
 Jay Coghlan.....3-128
 Scott Kovac3-128

O

OREGON STATE, DEPARTMENT OF ENERGY
 Dirk Dunning3-221

P

PEELER, MARIA, SENIOR POLICY SPECIALIST
 Washington State Department of Ecology3-225

PENNEY, SAMUEL N., CHAIRMAN
 Nez Perce Tribal Executive Committee3-3, 3-41

PERRY, BOB, DIRECTOR, OFFICE OF ENVIRONMENTAL

PROGRAMS
 South Carolina Department of Natural
 Resources 3-88

PITKIN COUNTY BOARD OF COUNTY COMMISSIONERS
 George Newman, Chair..... 3-35

POKRANDT, JIM, CHAIR
 Colorado Basin Roundtable 3-126

POLLET, GERRY
 Heart of America Northwest 3-233

PREACHER, WILLIE
 Shoshone Bannock Tribe..... 3-186

PUBLIC CITIZEN
 Tom “Smitty” Smith, Director
 Campaign B..... 3-166

S

SALAZAR, JOHN
 United States Congressman..... 3-31

SCHRADER, CURTIS, CITY MANAGER
 Eunice, New Mexico..... 3-264

SCHULTE, TROY M., INTERIM CITY MANAGER
 Office of the City Manager, Kansas City,
 Missouri..... 3-20

SHARP, JOHN A., COUNCILMAN, 6TH DISTRICT
 Office of the City Council, Kansas City,
 Missouri..... 3-16, 3-199

SHOSHONE BANNOCK TRIBE
 Willie Preacher 3-186

SMITH, TOM “SMITTY”, DIRECTOR
 Public Citizen
 Campaign B..... 3-166

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
 Bob Perry, Director, Office of Environmental
 Programs 3-88

STEWART, ROBERT F., REGIONAL ENVIRONMENTAL
 OFFICER
 United States Department of the Interior 3-58

STURDEVANT, TED, DIRECTOR
 State of Washington, Department of Ecology 3-37

SUSTAINABLE ENERGY AND ECONOMIC DEVELOPMENT
 (SEED) COALITION
 KAREN HADDEN, EXECUTIVE DIRECTOR
 Campaign B..... 3-166
 3-272, 3-285

T

TEMPLETON, MARK N., DIRECTOR
 State of Missouri, Department of Natural
 Resources 3-135

TENNESSEE DEPARTMENT OF ENVIRONMENT AND
 CONSERVATION, DOE-OVERSIGHT
 John A. Wojtowicz 3-66

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
 Jim Harrison, Director, Intergovernmental
 Relations Division 3-24
 Earl Lott, Director, Waste Permits Division..... 3-161

TEXAS PARKS AND WILDLIFE DEPARTMENT
 Ross Melinchuk, Deputy Executive Director....3-110

U

UDALL, MARK
 United States Senator 3-31

UNITED STATES CONGRESS
 Senator Michael F. Bennet 3-31
 Senator Mark Udall 3-31
 Congressman John Salazar 3-31

U.S. DEPARTMENT OF THE INTERIOR
 Robert F. Stewart, Regional Environmental
 Officer 3-58

U.S. ENVIRONMENTAL PROTECTION AGENCY
 Susan E. Bromm, Director, Office of Federal
 Activities 3-59

U.S. FISHERIES AND WILDLIFE, AUSTIN FIELD OFFICE
 Charlotte Kucera 3-15

V

VELARDE, RON, NW REGIONAL MANAGER
 State of Colorado, Department of Natural
 Resources, Division of Wildlife 3-144

W

WASHINGTON STATE, DEPARTMENT OF ECOLOGY
 Ted Sturdevant, Director 3-37
 Maria Peeler, Senior Policy Specialist 3-225

WASTE CONTROL SPECIALISTS
 J. Garza 3-286

WHITE, MATT, MAYOR
 Eunice, New Mexico 3-265

WOJTOWICZ, JOHN A.
 Tennessee Department of Environment and
 Conservation, DOE-Oversight 3-66

Individuals

A

AARON, FRANK
 Campaign B..... 3-166

ADAMS, CAROL T., CO-CHAIR
 Environmental Management Commission of
 Kansas City Missouri 3-22

A.J. 3-56

ALEY, MAXWELL
 Campaign A..... 3-164

ALEY, SARAH
 Campaign A..... 3-164

B

BACH, CAROL
 Campaign A..... 3-164

BACON, KEITH
 Campaign C..... 3-174

BAHLS, PETER
 Campaign C..... 3-174

BARNES, MELANIE3-118

BARR, PHILLIP3-151, 3-156

BASSLER, HELEN
 Campaign C..... 3-174

BEILFUSS, ROGER
 Campaign A..... 3-164

BENAVIDES, MAUREENA 3-55

BENNET, MICHAEL F.
 United States Senator 3-31

BERGER, VERNON
 Campaign B..... 3-166

BERKEBILE, BOB, CO-CHAIR
 Environmental Management Commission of
 Kansas City Missouri 3-22

BLEVINS, STEPHANIE
 Campaign B..... 3-166

BRADLEY, JOEL
 Campaign A..... 3-164

BRANT, BILL 3-216

BROMM, SUSAN E., DIRECTOR, OFFICE OF FEDERAL
 ACTIVITIES
 U.S. Environmental Protection Agency 3-60

BURNS, TERRY 3-137

BURTON, TONI R.
 Campaign C..... 3-174

BUTLER, JUANITA
 Campaign B..... 3-166

C

CAMPAIGN A..... 3-164

CAMPAIGN B 3-166

CAMPAIGN C 3-174

COGAN, MARJORIE
 Campaign C..... 3-174

COGLAN, JAY
 Nuclear Watch New Mexico 3-128

COPELAND, MAURICE 3-205

CROW, JULIA
 Campaign B..... 3-166

CULP, ARDELLA
 Campaign C..... 3-174

D

DANIEL, G.L.
 Campaign B..... 3-166

DAUPHINAIS, RAYMOND J.
 Campaign A..... 3-164

DAY, VICTORIA..... 3-30

DOBSON, BRUCE
 Campaign C..... 3-174

DOMÍNGUEZ, FRANCISCO
 Campaign B..... 3-166

DRAKE, ANGIE
 Campaign B.....3-166, 3-173

DREIER, BRIAN 3-213

DRUKE, CARMEN
 Campaign B..... 3-166

DUNCAN, SHARON..... 3-209

DUNNING, DIRK 3-242

DUNNING, DIRK
 Oregon State, Department of Energy 3-221

E

EISELE, MAX
 Campaign A..... 3-164

ELISABETH, TERESA J.
 Campaign C..... 3-174

ENRIGHT, TASHA
 Campaign A..... 3-164

F		HINES, LAURIE	3-214
FOY, DAVID, PRESIDENT		HOLLAND, BENJAMIN	
Colorado Counties, Inc.....	3-96	Campaign B.....	3-166
FRANSEN, CURT, DEPUTY DIRECTOR		HOLLAND, JULIA	
State of Idaho, Department of Environmental		Campaign B.....	3-166
Quality	3-33	HOLLAND, SUSAN	
FUHRIMAN, BEN.....	3-13	Campaign C.....	3-174
FUNKHOUSER, MARK, MAYOR		HYNES, NANCY	
Office of the City Council, Kansas City,		Campaign B.....	3-166
Missouri.....	3-16	J	
G		JAMES, KIM.....	3-121
GARCÍA, ANGELICA		JENNINGS, RAY	
Campaign B.....	3-166	Campaign A.....	3-164
GARDNER, ROSE	3-266	JOHNSON, KEITH T.	
GARZA, J.		Campaign C.....	3-174
Waste Control Specialists.....	3-286	JOLLY, CATHY, COUNCILWOMAN, 6TH DISTRICT-AT-LARGE	
GEDDES, RICHARD	3-256, 3-260	Office of the City Council, Kansas City,	
GOAR, EVERETT		Missouri.....	3-16, 3-196
Campaign B.....	3-166	JUSTICE, JAN	
GOSLEE, CARRIE L.		Campaign B.....	3-166
Campaign B.....	3-166	K	
GRIFFIN, NICOLE		KELLOGG, FRED	
Campaign A.....	3-164	Campaign C.....	3-174
GUBELMAN, E.		KLASSEN, JANE	
Campaign C.....	3-174	Campaign C.....	3-174
GUIDRY, STACY		KOENIGER, GERRIANA	3-90
Campaign B.....	3-166	KOVAC, SCOTT	
H		Nuclear Watch New Mexico	3-128
HADDEN, KAREN, EXECUTIVE DIRECTOR		KRAUS, SARA	
Sustainable Energy and Economic		Campaign A.....	3-164
Development (SEED) Coalition		KUCERA, CHARLOTTE	
Campaign B.....	3-166	U.S. Fisheries and Wildlife,	
.....	3-272, 3-285	Austin Field Office.....	3-15
HAMILTON, BETTY DUBOSE	3-25	L	
HAMOND, HALL		LARSON, ELIZABETH R.	
Campaign B.....	3-166	Campaign C.....	3-174
HANON, JAMES		LIGON, LOU ANN	
Campaign B.....	3-166	Campaign B.....	3-166
HARRISON, JIM, DIRECTOR, INTERGOVERNMENTAL		LINDSAY, STEPHANIE, FOR	
RELATIONS DIVISION		Marlborough Community Coalition.....	3-98
Texas Commission on Environmental Quality....	3-24	LIRTZMAN, RICHARD	
HAUSMAN, ROSEANN		Campaign A.....	3-164
Campaign A.....	3-164	LOTT, EARL, DIRECTOR, WASTE PERMITS DIVISION	
HEIKKALA, THOMAS		Texas Commission on Environmental Quality..	3-161
Campaign B.....	3-166	LOWEN, A.	
HENDLEY, BOBBY		Campaign C.....	3-174
Campaign B.....	3-166	LUDLOW, B.	3-44
HENDRICKSON, CATHY			
Campaign C.....	3-174		

M

MAUK, SCOTT
 Campaign C.....3-174

MCCULLOUGH, MELISSA
 Campaign C.....3-174

MELINCHUK, ROSS, DEPUTY EXECUTIVE DIRECTOR
 Texas Parks and Wildlife Department.....3-110

MJAL, MARTIN3-240

MILLER, DOUG
 Campaign C.....3-174

MORRISON, KENT
 Campaign C.....3-174

MULVENON, NORMAN A., CHAIR
 LOC Citizens' Advisory Panel3-97

MURPHEY, DENNIS, CHIEF ENVIRONMENTAL OFFICER
 Kansas City, Missouri, Office of the
 City Manager.....3-20, 3-208

MYERS, PHILIP
 Campaign C.....3-174

N

NASH, TERRENCE.....3-212

NATHAN, NAKISHA
 Campaign B.....3-166

NEHER, ERICK
 Idaho Department of Environmental Quality....3-188

NEMITZ, KERSTIN
 Campaign A.....3-164

NEWMAN, GEORGE, CHAIR
 Pitkin County Board of County
 Commissioners.....3-35

O

O'NEAL, RANDAL
 Campaign A.....3-164

P

PACOSZ, CHRISTINA3-29

PARISH, JOHN3-284

PEELER, MARIA, SENIOR POLICY SPECIALIST
 Washington State Department of Ecology3-225

PENNEY, SAMUEL N., CHAIRMAN
 Nez Perce Tribal Executive Committee3-3, 3-41

PERRY, BOB, DIRECTOR, OFFICE OF ENVIRONMENTAL
 PROGRAMS
 South Carolina Department of Natural
 Resources3-88

PFAUS, JUDY
 Campaign A.....3-164

PHELPS, FOREST.....3-46

POE, LEE.....3-255, 3-259

POKRANDT, JIM, CHAIR
 Colorado Basin Roundtable3-126

POLLET, GERRY
 Heart of America Northwest3-233

PONELLI, ALAN
 Campaign A.....3-164

PREACHER, WILLIE
 Shoshone Bannock Tribe.....3-186

PRYOR, MELODYE.....3-282

PRYOR, PEGGY.....3-122, 3-280

R

RICHARDSON, HOBERT
 Campaign B.....3-166

ROOKE, MOLLY
 Campaign B.....3-166

ROSS, JANET
 Campaign C.....3-174

RUSTON, AMANDA
 Campaign C.....3-174

S

SALAZAR, JOHN
 United States Congressman.....3-31

SANTANA, SONIA3-32
 Campaign B.....3-166

SASSEE, ANDREA
 Campaign C.....3-174

SCHRADER, CURTIS, CITY MANAGER
 Eunice, New Mexico.....3-264

SCHRAM, MARK
 Campaign B.....3-166, 3-173

SCHULTE, TROY M., INTERIM CITY MANAGER
 Office of the City Manager, Kansas City,
 Missouri.....3-20

SCHULTZ, TED
 Campaign A.....3-164

SENNHAUSER, KELLY
 Campaign B.....3-166

SEVERNS, MURIEL
 Campaign C.....3-174

SHARP, JOHN A., COUNCILMAN, 6TH DISTRICT
 Office of the City Council, Kansas City,
 Missouri.....3-16, 3-199

SHOSHONE BANNOCK TRIBE
 Willie Preacher3-186

SIEFERT, LINDA
 Campaign B.....3-166

SKINNERLAND, RON3-250

SMITH, BEVERLY
 Campaign A.....3-164

SMITH, BRENDA
 Campaign B.....3-166

SMITH, MAURICE3-203

SMITH, TOM “SMITTY”3-276

SMITH, TOM “SMITTY”, DIRECTOR
 Public Citizen
 Campaign B.....3-166

STAHL, EDGAR
 Campaign B.....3-166

STEWART, ROBERT F., REGIONAL ENVIRONMENTAL
 OFFICER
 United States Department of the Interior3-58

STURDEVANT, TED, DIRECTOR
 State of Washington, Department of Ecology3-37

SUELLENTROP, ANN.....3-45

T

TANNER, JOHN.....3-14

TEMPLETON, MARK N., DIRECTOR
 State of Missouri, Department of Natural
 Resources3-135

TIMMONS, HOWARD3-23

TRAINOR, EILEEN.....3-47

U

UDALL, MARK
 United States Senator3-31

V

VANCE, LOIS3-28

VELARDE, RON, NW REGIONAL MANAGER
 State of Colorado, Department of Natural
 Resources, Division of Wildlife3-144

VIRGIL, PHILIP
 Campaign B.....3-166

VOLLSTEDT, DALAYNE
 Campaign A.....3-164

W

WALD, ANSEL
 Campaign C..... 3-174

WALLY, LIZ
 Campaign B..... 3-166

WEEHLER, CYNTHIA
 Campaign B..... 3-166

WEISS, LEONARD
 Campaign A..... 3-164

WELLS, GEORGIANA
 Campaign B..... 3-166

WHEELER, DIANA 3-12

WHITE, MATT, MAYOR
 Eunice, New Mexico..... 3-265

WIDMAYER, NIKI 3-49

WILCOX, MARLA
 Campaign A..... 3-164

WILDE, CARMEN
 Campaign A..... 3-164

WILLIAMS, KRISTINE
 Campaign A..... 3-164

WILSON, KATHY
 Campaign C..... 3-174

WILSON, SARAH
 Campaign C..... 3-174

WINDBERG, THOMAS
 Campaign B..... 3-166

WOJTOWICZ, JOHN A.
 Tennessee Department of Environment and
 Conservation, DOE-Oversight 3-66

WRIGHT, JUANITA
 Campaign A..... 3-164

WRIGHT, SHELLEY
 Campaign B..... 3-166

Y

YOUNG, ELIZABETH
 Campaign B..... 3-166

SECTION 1

OVERVIEW OF THE PUBLIC COMMENT PROCESS

This section of this comment response document (CRD) describes the public comment process for the *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423) (*Draft Mercury Storage EIS*), as well as the procedure used to respond to those comments. **Section 1.1** summarizes the organization of this document. **Section 1.2** describes the public comment process and the means through which comments on the *Draft Mercury Storage EIS* were received and addressed. **Section 1.3** describes the public hearings for the *Draft Mercury Storage EIS*, including hearing locations and dates. **Section 1.4** discusses the U.S. Environmental Protection Agency's (EPA's) rating of the *Draft Mercury Storage EIS* and what it means.

Comment Document – A communication in the form of a verbatim transcript or written comment from a public hearing, a letter, or an electronic communication (e.g., fax, email) that contains comments from a sovereign nation, government agency, organization, or member of the public regarding the *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (Draft Mercury Storage EIS)*.

Comment – A specific statement or question within a comment document regarding the content of the *Draft Mercury Storage EIS* that conveys approval or disapproval of proposed actions, recommends changes in the environmental impact statement, raises concerns or issues, or seeks additional information.

1.1 ORGANIZATION OF THIS COMMENT RESPONSE DOCUMENT

This CRD comprises the following sections:

- **Section 1** describes the organization of this CRD, the public comment process, the public hearings, and EPA's rating of the EIS.
- **Section 2** presents summaries of major issues raised in the comments and the U.S. Department of Energy's (DOE's) responses. These major issues include topics that appeared frequently in the comment documents or are of broad interest or concern. The reader may find this section useful as an executive summary of the comments and responses found in Section 3 of this CRD.
- **Section 3** presents copies of the comment documents received during the public comment process, including transcripts of oral comments given during the nine public hearings. Each comment document has been delineated; each delineated comment is marked by a bar in the margin and a unique comment number. Responses to delineated comments are displayed to the right of the comment. There are two indices at the front of this volume for locating the comment documents presented in Section 3. The first index lists all public officials, organizations, and interest groups that submitted a comment document. The second index lists all individuals or organizations that submitted a comment document, including the officials and the entities listed in the first index. Both indices are listed in alphabetical order. Section 3 of this CRD was further divided into three subsections, as follows:
 1. Individual and unique comment documents. Comment Document Nos. 1–99 were reserved for these submissions. However, only Nos. 1–46 were assigned.
 2. Campaign or petition comment documents. These are multiple, but independent, submissions of an equivalent comment document (i.e., campaign) or submission of the same comment document with multiple signatories (i.e., petition). Alphanumeric designations were assigned to each comment (e.g., A–3 means Campaign A; third comment). If a commentor added

unique text to a campaign letter that constitutes an additional comment, then a suffix was added to the letter (e.g., B“1”-1 or B“2”-1). Three campaigns were received, as follows:

- Campaign A: Comment Nos. A-1 through A-3
 - Campaign B: Comment Nos. B-1 through B-11 and B1-1 and B2-1
 - Campaign C: Comment Nos. C-1 through C-2
3. Transcripts and oral comment documents. Each person that gave an oral comment was assigned a unique comment document number. Comment Document Nos. 100-999 were reserved for public hearings. One hundred comment document numbers were reserved for each hearing location (e.g., 100-199 for Grand Junction, Colorado; 200-299 for Hawthorne, Nevada; 300-399 for Idaho Falls, Idaho). No oral comments were given at Grand Junction, Colorado, or Hawthorne, Nevada; thus, no comment documents in the 100-199 or 200-299 range were assigned.
- **Section 4** lists the references cited in this CRD.

1.2 PUBLIC COMMENT PROCESS

The *Draft Mercury Storage EIS* was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.) to analyze the potential environmental impacts associated with the long-term management and storage of elemental mercury¹ at seven candidate locations, as well as the No Action Alternative. An important part of the NEPA process is solicitation of public comments on a draft environmental impact statement (EIS) and consideration of those comments in preparing a final EIS. DOE released the *Draft Mercury Storage EIS* in January 2010 for review and comment by other Federal agencies, states, sovereign nations (i.e., American Indian tribal governments), local governments, and the public. DOE distributed copies to those organizations and government officials who were known to have an interest in the EIS, as well as to those organizations and individuals who requested a copy. Copies were also made available on the Internet and in regional DOE public document reading rooms and public libraries near the candidate locations. Notifications were mailed to stakeholders on record and advertisements were published in local newspapers stating the availability of the *Draft Mercury Storage EIS* and when and where public hearings were to be held.

The formal public comment period was 60 days (longer than the required minimum of 45 days), from January 29, 2010, through March 30, 2010. During the 60-day comment period, public hearings were held in nine locations, including the addition of a hearing in Eunice, New Mexico, in response to public request. The public hearing locations and estimated attendance are discussed in detail in Section 1.3.

In addition to comments received during the public hearing process, the public was invited to submit comments on the *Draft Mercury Storage EIS* to DOE via (1) the *Mercury Storage EIS* website (<http://www.mercurystorageeis.com>), (2) a toll-free fax line, and (3) the U.S. mail. DOE received 169 comment document submissions, containing approximately 1,200 comments addressing a wide range of issues. The website provided electronic access to documents associated with the *Draft Mercury Storage EIS*, including the draft EIS and transcripts from all public hearings. Table 1-1 lists the numbers of comment documents received by method of submission.

¹ Unless the context indicates otherwise, elemental mercury is referred to hereafter simply as “mercury” in this environmental impact statement.

Table 1–1. Comment Document Submission Method

Method	Number of Submissions
Public Hearing (Oral Comment)	29
Public Hearing (Written Comment)	7
Letter via U.S. Mail	45
Fax	46
Website or Email	41
Other ^a	1
Total	169

^a Although not listed as one of the designated or preferred methods for commenting on the *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement*, one voicemail was received by the U.S. Department of Energy Document Manager and included in this comment response document.

DOE considered all comments on the *Draft Mercury Storage EIS* to determine whether corrections, clarifications, or other revisions were required before publishing this final EIS. All comments were considered equally, whether written, spoken, faxed, mailed, or submitted electronically. Upon receipt, all comment documents were logged and assigned a document number for tracking during the comment response process. All comments were compiled into an electronic database. All comment documents were then processed through a comment analysis and response sequence. The text of each comment document was delineated into unique comments and, categorized according to the specific concern addressed, and each separate comment was assigned an individual, sequential number. Thus, one comment document could have two or more comments. Comments were reviewed and responses prepared by policy experts, subject matter experts, and NEPA specialists, as appropriate. The originally submitted comment documents and transcribed oral comments made at public hearings are included as part of the administrative record. Figure 1–1 illustrates the process used to collect, track, and respond to comments.

Topics of broad public interest were characterized as major issues and are summarized in Section 2 of this CRD. The comments and DOE’s responses are presented in Section 3 of this CRD in a side-by-side format, with each delineated comment displayed to the left of its corresponding response.

The comment response process was integral to preparation of this *Final Mercury Storage EIS*, as it was used to focus revision efforts and ensure consistency throughout the final document. Comments were evaluated to determine, for example, whether the alternatives and analyses presented in the *Draft Mercury Storage EIS* should be modified or augmented; whether information presented in the draft EIS was incorrect or out of date; and whether additional or revised text would clarify or facilitate a better understanding of certain issues. Section 1.5 describes changes made between the *Draft* and *Final Mercury Storage EIS* as a result of the public comment process.

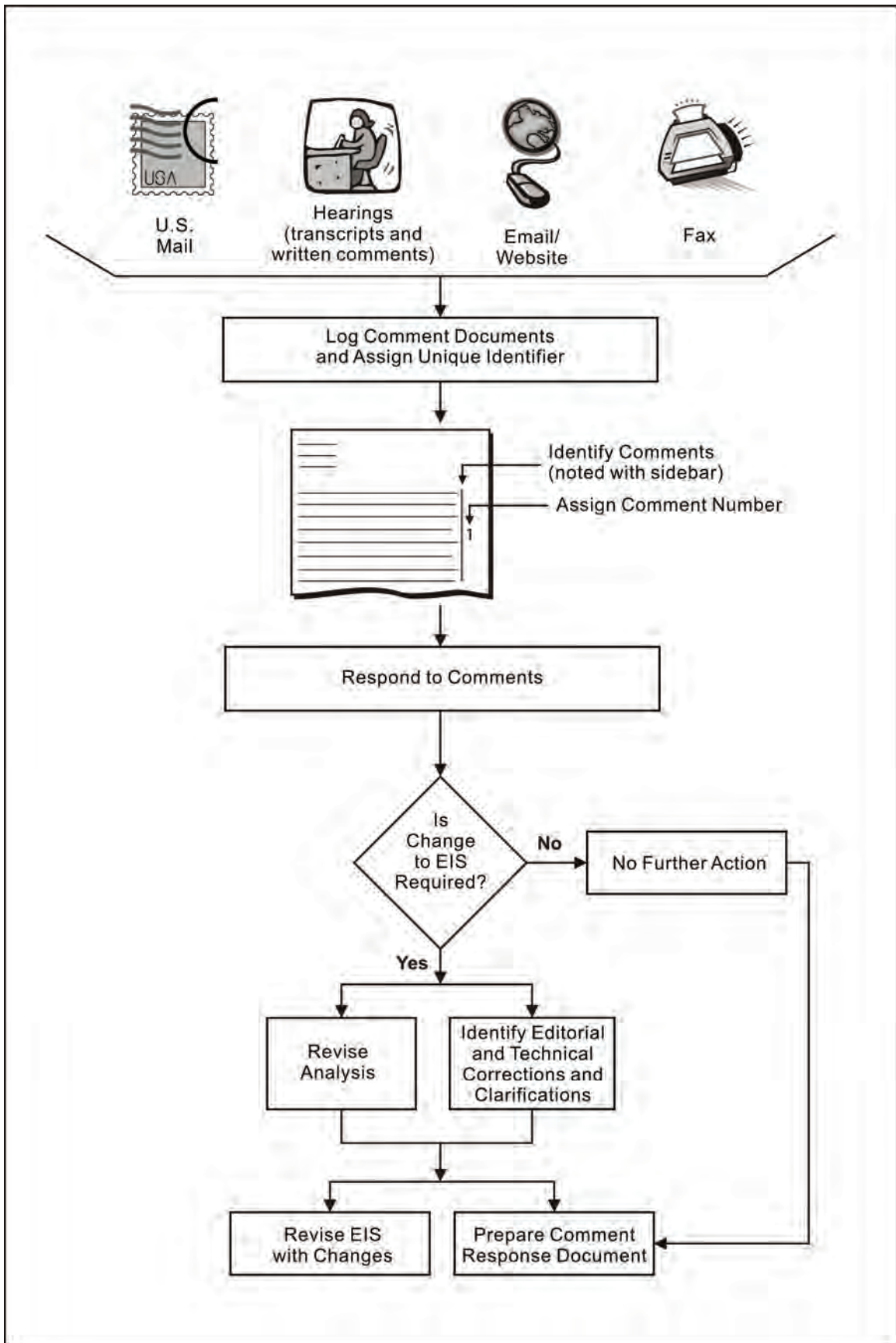


Figure 1-1. Comment Response Process

1.3 PUBLIC HEARINGS

As described in the DOE Notice of Availability of the *Draft Mercury Storage EIS* (75 FR 4801), public hearings were held to encourage public comments on the *Draft Mercury Storage EIS* and to provide members of the public with information about the NEPA process and the proposed action.

Each of the public hearings started with an open house that lasted approximately 1 hour. Posters were displayed and fact sheets were made available to the public. Subject matter experts were present during the open house; members of the public were invited to view the displays and ask questions of the subject matter experts either before or after the formal hearings were conducted. The posters and available fact sheets addressed the NEPA process; Mercury Export Ban Act of 2008 (P.L. 110-414); public comment process; candidate sites for long-term storage; summary of impacts; and a timeline of EIS-related steps. Electronic (e.g., compact disk) copies of the *Draft Mercury Storage EIS* and paper copies of the “Summary and Guide for Stakeholders” were also available at the public hearings.

Table 1–2 lists the location, estimated number of attendees, and oral commentators for each hearing. The attendance estimates are based on the number of people who signed in, as well as a rough “head count” of the audience.

Table 1–2. Public Hearing Locations and Attendance

Location	Date	Estimated Attendance	Oral Commentors
Grand Junction, Colorado	February 23, 2010	3	0
Hawthorne, Nevada	February 23, 2010	11	0
Idaho Falls, Idaho	February 25, 2010	12	2
Kansas City, Missouri	March 2, 2010	27	10
Portland, Oregon	March 2, 2010	7	5
Richland, Washington	March 3, 2010	1	1
North Augusta, South Carolina	March 4, 2010	5	2
Eunice, New Mexico	March 8, 2010	16	3
Andrews, Texas	March 9, 2010	35	6
Total		117	29

After the open house, DOE gave a presentation that was composed of an overview of the *Draft Mercury Storage EIS* and an explanation of the analyses presented in the EIS. Following this presentation, attendees were given an opportunity to provide oral and written comments. Each oral comment, recorded by the court reporter as part of the hearing transcript, was treated as a comment document. Each written comment collected during the hearing was likewise treated as a comment document. The transcripts and written comments from each public hearing are presented in **Section 3** of this CRD.

1.4 U.S. ENVIRONMENTAL PROTECTION AGENCY RATING

In accordance with EPA’s responsibilities under Section 309 of the Clean Air Act (42 U.S.C. 7401 et seq.), NEPA, and the Council on Environmental Quality regulations for implementing NEPA (40 CFR 1500–1508), EPA reviewed the *Draft Mercury Storage EIS* and assigned a “Lack of Objections” rating to the proposed action. A copy of the EPA letter (Comment Document No. 29) is included in Section 3 of this CRD.

SECTION 2 MAJOR ISSUES

Several topics identified in the public comments on the *Draft Mercury Storage EIS* are of broad interest or concern. These topics are characterized as major issues and are summarized in this section.

- NEPA Scope and Process
- The Mercury Export Ban Act of 2008
- Selection of Alternatives and the Preferred Alternative
- Mercury Inventory and Sources
- Affected Environment
- Environmental Consequences
- Human Health Impacts and Accident Analyses
- Transportation
- Cost

In several instances, concerns expressed by commentors may overlap more than one of these issue categories. As such, discussions in different parts of this section may complement each other. Where applicable, the discussions provide cross-referencing for these situations.

2.1 NEPA SCOPE AND PROCESS

The major issues identified in the public comments that are associated with the NEPA scope or process are (1) what happens if more than 10,000 metric tons (11,000 tons) of mercury requires storage or if the period of storage exceeds the 40-year period of analysis; (2) whether potential impacts of the Waste Control Specialists, LLC, site (WCS) alternative across the state line in New Mexico were assessed and whether the citizens of Eunice, New Mexico, were given opportunities for involvement; and (3) what happens if DOE changes the Preferred Alternative or selects a site other than WCS?

Issue:

Commentors expressed concern about what decisions would be made if the amount of mercury requiring storage exceeds 10,000 metric tons (11,000 tons) or if storage is necessary for more than 40 years. Commentors expressed concern that DOE would select multiple sites to accommodate the additional quantities of mercury.

Discussion:

As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for such excess elemental mercury wastes. As described in Section 2.1, the Mercury Export Ban Act of 2008 does not specify how long the DOE mercury storage facility(ies) would need to be operated. For purposes of analysis, DOE assumes the operation of a mercury storage facility(ies) with a capacity of 10,000 metric tons (11,000 tons) over a 40-year period of analysis. These are estimates with a degree of uncertainty; therefore, it is possible that more or less than this amount of mercury could eventually require storage for a period longer or shorter than 40 years. In the event that more than 10,000 metric tons (11,000 tons) of mercury need to be stored or storage beyond the 40-year period of analysis becomes necessary, additional NEPA documentation may be required.

Issue:

Concern was also expressed that once a total of 10,000 metric tons (11,000 tons) of mercury is in storage at the proposed facility, DOE would select another candidate site for storage of mercury.

Discussion:

As noted above, any storage scenario other than those evaluated in this *Mercury Storage EIS* would require additional NEPA documentation.

Issue:

Commentors expressed concern that the Draft Mercury Storage EIS did not adequately consider impacts of the proposed WCS alternative across the state line in Eunice, New Mexico, or involve the citizens of Eunice in the NEPA public involvement process.

Discussion:

DOE is committed to fully considering all environmental concerns related to WCS, including impacts on nearby areas of New Mexico, in its NEPA analyses and decisionmaking process. Chapter 3, Section 3.8, and Chapter 4, Section 4.9, describe the affected environment and environmental impacts associated with constructing and operating a mercury storage facility at WCS. For example, Sections 3.8.11 and 4.9.11 describe environmental justice issues as they relate to nearby areas, including Eunice, New Mexico, and conclude, based on the risk analysis presented in Section 4.9.9, that there would be no disproportionately high and adverse effects on minority or low-income populations. Also, water requirements for construction and operation of a new mercury storage facility would be minor and would not impact the Eunice municipal water system. DOE also considered Eunice in the analysis of cumulative impacts (see Section 4.11) since it is located within the 16-kilometer (10-mile) region of influence and concluded that the mercury storage facility would not contribute meaningfully to cumulative impacts.

DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities, including Eunice, understand the proposed action and are given opportunities to participate. Throughout the *Mercury Storage EIS* process, DOE conducted a vigorous outreach program to inform the public and solicit input: 8 public scoping meetings and 9 public hearings on the draft EIS were held near the seven candidate mercury storage locations, including a public hearing in Eunice, New Mexico.

Issue:

Commentors expressed support or opposition to DOE's Preferred Alternative, WCS near Andrews, Texas. Other commentors expressed concern that DOE might change the Preferred Alternative.

Discussion:

DOE identified WCS as the Preferred Alternative in the *Draft Mercury Storage EIS* (see Chapter 2, Section 2.5). Although a Preferred Alternative has been identified, DOE has not made a decision. DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a Record of Decision (ROD) published in the *Federal Register*.

If a candidate site other than the Preferred Alternative is selected in the ROD, DOE believes that this *Final Mercury Storage EIS* provides sufficient NEPA coverage and, therefore, would not need to issue a new or revised EIS. Based on preliminary site evaluation criteria and the analyses of potential impacts in Chapters 2 and 4, DOE believes that any of the candidate sites considered would be suitable for the long-term storage of elemental mercury. Impacts were found to be none to minor at all sites; minor differences are shown in Chapter 2, Tables 2–1 and 2–2, and the “Summary and Guide for Stakeholders,” Table 3.

2.2 THE MERCURY EXPORT BAN ACT OF 2008

The major issues identified in the public comments that are associated with the provisions of the Mercury Export Ban Act of 2008 include (1) the potential to expand the scope of the Act to store mercury compounds or mercury-containing wastes and (2) the lack of inclusion of a timetable or requirements for development of a treatment and disposal standard for high-purity elemental mercury wastes.

Issue:

Commentors expressed concern that the Mercury Export Ban Act of 2008 does not address mercury compounds or mercury-containing wastes and that significant expansion of the designated facility(ies) or multiple facilities would be needed if the mercury storage facility(ies) were to accept other mercury-containing wastes.

Discussion:

Pursuant to Section 5 of the Mercury Export Ban Act of 2008, DOE is required to designate a facility (or facilities) for the long-term management and storage of elemental mercury. Under the scope of this EIS, DOE has determined that it will only accept elemental mercury at a long-term storage facility that is at least 99.5 percent pure.

In passing the Act, which specifically addresses elemental mercury, Congress recognized the potential that mercury would be exported as a compound and then converted into elemental mercury. As described in Chapter 1, Section 1.3.1, Congress directed EPA to publish a report on mercury compounds that may currently be used in significant quantities in products or processes no later than 1 year after the date of enactment of the Act. EPA submitted a report entitled *Potential Export of Mercury Compounds from the United States for Conversion to Elemental Mercury* to Congress in October 2009 (EPA 2009). The report provides information on sources, amounts, and uses of mercury compounds; assesses the potential for these compounds to be processed into elemental mercury after export; and provides information for Congress to consider in determining whether to extend the Act’s mercury export prohibition to include one or more of these mercury compounds.

After consideration of the EPA mercury compounds report, if Congress decides to extend the export prohibition to include certain mercury compounds and directs DOE to accept mercury compound wastes (or other mercury wastes) for indefinite storage, additional NEPA documentation would be necessary. Additional NEPA analysis may also be required if certain mercury compounds are added to the mercury export ban and treatment of these materials results in a quantity of excess elemental mercury requiring long-term storage in a DOE facility beyond the 10,000-metric-ton (11,000-ton) estimate evaluated in this EIS.

Issue:

Commentors suggested that the Mercury Export Ban Act, and thus, the proposed action of storing elemental mercury evaluated in the EIS, is incomplete without an analysis of treatment and disposal pathways, or, at the very least, without an incentive or timetable for developing a treatment standard for high-purity elemental mercury wastes.

Discussion:

As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. EPA regulates the treatment and disposal of mercury-containing wastes through waste management regulations under the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901 et seq.). The treatment requirement currently applicable to high-concentration mercury waste results in the recovery of mercury for reuse. Specifically, the treatment standard for mercury wastes with concentrations greater than or equal to 260 milligrams per kilogram is roasting or retorting the mercury waste in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery, yielding high-purity elemental mercury (40 CFR 268). Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for discarded high-purity elemental mercury.

EPA issued an Advanced Notice of Proposed Rulemaking on May 28, 1999 (64 FR 28949), announcing its plan to consider revisions to the “Land Disposal Restrictions” treatment standards applicable to mercury-bearing wastes (40 CFR 268). With this notice, EPA also stated its intent to conduct a comprehensive reevaluation of the treatment standards for mercury-bearing hazardous wastes, as well as various options, issues, and data needs related to potential mercury treatment standard revisions.

On January 29, 2003, EPA published a Notice of Data Availability in the *Federal Register* (68 FR 4481) making available two studies conducted on mercury waste treatment. The results of the two studies are provided in the following reports: (1) *Technical Background Document: Mercury Wastes—Evaluation of Treatment of Mercury Surrogate Waste* and (2) *Technical Background Document: Mercury Wastes—Evaluation of Treatment of Bulk Elemental Mercury*. The studies were intended to help EPA determine whether it could propose treatment and disposal alternatives to the current treatment standard of retorting (applicable to wastes containing high concentrations of mercury) set forth in its “Land Disposal Restrictions.” Based on these studies, EPA concluded that available technology was not mature enough to establish new national treatment standards for disposal of high-concentration mercury and high-purity elemental mercury wastes.

As of 2010, no further action has been taken by EPA to establish alternative treatment and disposal requirements for mercury-bearing wastes with concentrations greater than or equal to 260 milligrams per kilogram (high-concentration mercury subcategory wastes), which include high-purity elemental mercury wastes. A final disposal pathway for high-purity elemental mercury waste is not available, nor would it be reasonable to speculate what kind of technology would be approved for treatment of high-purity elemental mercury wastes. Therefore, DOE is not considering treatment options for detailed evaluation in this *Mercury Storage EIS*. Evaluating and implementing incentives for development of treatment technologies for high-purity mercury wastes is not within the scope of this EIS.

2.3 SELECTION OF ALTERNATIVES AND THE PREFERRED ALTERNATIVE

The major issues identified in the public comments that are associated with selecting the alternatives and the Preferred Alternative are (1) a mercury storage facility might interfere with a candidate site’s current remediation efforts; (2) existing land use plans or agreements might prohibit selection of certain candidate sites for a mercury storage facility(ies); (3) the No Action Alternative and multiple-site scenarios must be fully considered; and (4) some of the candidate sites are not a “DOE facility,” as required by the Mercury Export Ban Act.

Issue:

Commentors expressed concern that locating and operating a long-term mercury storage facility would interfere with and prolong ongoing cleanup efforts at several DOE sites. In particular, concern was expressed with regard to the Hanford Site (Hanford), the Savannah River Site (SRS), Idaho National Laboratory (INL), and the Kansas City Plant (KCP).

Discussion:

Construction and operation of a mercury storage facility(ies) would be a separately funded item that would not divert funds from, nor interfere with, the ongoing cleanup mission at any DOE site. Cleanup activities continue to be a high priority for DOE. As stated in the “Waste Management” sections of Chapter 4, DOE would continue to manage ongoing programs and projects at its various sites, including Hanford, INL, KCP, and SRS in support of sitewide remediation. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts. In fact, as described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws.

Issue:

Commentors stated that existing land use plans would prohibit the selection of some candidate sites. Specifically, since the 1996 Memorandum of Understanding (MOU) between DOE and Mesa County (DOE and Mesa County 1996) limits the use of the Grand Junction Disposal Site (GJDS) to the disposal of uranium mill tailings, it does not permit its use for the management of any other waste. Also, commentors pointed to the uncertain status regarding relocation of tenants at KCP.

Discussion:

One of the selection criteria used by DOE when evaluating the suitability of a site for the storage of elemental mercury was compatibility with local and regional land use plans (see Chapter 1, Section 1.5.1). As noted in Chapter 2, Section 2.7.1.1, no impacts on land use are expected under action alternatives involving the use of existing buildings because no new construction or substantial external modifications to the buildings would be required. At Hanford, INL (at the Idaho Nuclear Technology and Engineering Center), SRS, and WCS, the land required to construct a new facility would be negligible compared with the relative size of the candidate site. Further, site selection would give preference to land areas that have already been cleared, such as those adjacent to existing facilities, so as to utilize existing infrastructure and to minimize impacts on ecological resources.

As stated in Chapter 1, Section 1.7.1, DOE and Mesa County entered into an MOU in 1996 to provide meaningful consultation with and participation of the county in DOE’s use of GJDS. The position of Mesa County, a cooperating agency for the purposes of this EIS, is that use of GJDS is restricted per the 1996 MOU and that it governs any proposed mercury storage at GJDS. Mesa County believes the agreement is clear and that GJDS is only to be used for uranium mill tailings, almost exclusively of local origin. Mesa County further asserts that DOE assured the citizens of the county that the disposal site would never be used to store any wastes other than mill tailings. DOE acknowledges that the 1996 MOU stipulates that DOE must consult with Mesa County regarding decisions related to operations at the site. DOE will evaluate the applicability of the 1996 MOU to the long-term management and storage of elemental mercury at GIDS to determine whether the 1996 MOU would affect the viability of the selection of this site as the location for a mercury storage facility. As noted in Chapter 4, Section 4.3.1, Mesa County land use regulations require that a warehouse or storage facility be located in an industrial or commercial zoning district. The current land use of GJDS is

Agricultural Forestry Transitional; thus, an amendment to the land use code would be required to construct the mercury storage facility.

At KCP, DOE recognizes that although no applicable land use plans, policies, or controls have been identified that would specifically restrict storage of elemental mercury, such storage might not be considered compatible with proposed redevelopment of the site, adjacent residential zoning, or the proximity of sensitive populations within 0.8 kilometers (0.5 miles) of the site (see Chapter 4, Section 4.7.1). As noted by some commentors, the National Nuclear Security Administration (NNSA) is moving its operations at KCP to a new location (see Chapter 2, Section 2.4.6). Although the present facility was deemed inadequate for NNSA's operations, following the upgrades described in Chapter 2, Section 2.4.6, it would provide for the safe storage of elemental mercury. While NNSA's move to its new facility would not be completed until 2013, 14,000 square meters (150,000 square feet) of storage space would be available prior to the 2013 deadline called for in the Mercury Export Ban Act of 2008. Note that this is 325 square meters (3,500 square feet) more space than needed to store the estimated 10,000 metric tons (11,000 tons) of elemental mercury that could be stored over the 40-year period of analysis (see Chapter 2, Section 2.2). Thus, adequate space is available at KCP regardless of the relocation status of its current tenants.

Issue:

Commentors stated that the No Action Alternative (e.g., continued storage at the Y-12 National Security Complex [Y-12] and other points of generation) did not receive serious consideration in the Draft Mercury Storage EIS. Furthermore, commentors stated that a multiple-site alternative, with storage sites located closer to the sources of mercury generation, was not adequately considered. Commentors also expressed concern that multiple sites would need to be selected if the amount of mercury requiring storage exceeds the 10,000 metric tons (11,000 tons) anticipated.

Discussion:

DOE has given consideration to the No Action Alternative, as required by the Council on Environmental Quality's and DOE's regulations for implementing NEPA. However, Section 5 of the Mercury Export Ban Act of 2008 requires DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States. The Act does not require mercury generators to store their elemental mercury at the DOE storage site. Thus, some or all elemental mercury could be stored within or near the generating sites, which would be similar to the No Action Alternative or status quo.

The exception to this status quo is the ban on the export of elemental mercury, which would take effect January 1, 2013; this is expected to result in surplus inventories of mercury. DOE believes it is speculative to surmise what existing facilities and generators would do with their mercury once the mercury export ban goes into effect, assuming, for the purposes of analysis, that no DOE facility(ies) exists to accept excess elemental mercury. Further analysis of the various parameters and options under which mercury could be stored, consolidated, transferred, and shipped in the absence of a DOE facility under the No Action Alternative is not possible.

As described in Chapter 2, Section 2.6.1, DOE considered the possibility of using a "hybrid" or multiple-site strategy composed of candidate sites being evaluated in this *Mercury Storage EIS*. DOE eliminated such a strategy from further evaluation because the duplicative resources that would be required would not be cost-effective. The Mercury Export Ban Act of 2008 does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored at or near the source of generation. However, DOE is required under Section 5 of the Act to designate a DOE facility (or facilities) for the long-term management and storage of elemental mercury generated within the United States, thereby providing a storage alternative for generators.

For purposes of analysis, DOE assumed the operation of a mercury storage facility(ies) with a capacity of 10,000 metric tons (11,000 tons) over a 40-year period of analysis. These are estimates with a degree of uncertainty; therefore, it is possible that more or less than 10,000 metric tons (11,000 tons) of mercury could eventually require storage for a period longer or shorter than 40 years. Additional NEPA documentation may be required to evaluate expanding the facility(ies) to accept more than 10,000 metric tons (11,000 tons) of elemental mercury or extending its operations beyond the 40-year period of analysis.

Issue:

Commentors questioned the selection of WCS near Andrews, Texas, as a candidate site, and especially as the Preferred Alternative, and expressed concern that DOE had already made its decision regarding the selection of WCS. Commentors wanted an explanation as to how WCS, a private enterprise, would qualify as a “DOE facility” as specified in the Act. This concern regarding the definition of a “DOE facility” also applies to the Hawthorne Army Depot, a U.S. Department of Defense facility.

Discussion:

DOE has interpreted Section 5 of the Mercury Export Ban Act of 2008 to authorize DOE to designate an existing and/or new storage facility (or facilities) for mercury storage at property owned or leased by DOE (see Chapter 2, Section 2.4, Footnote 4). If a non-DOE site is selected, DOE would acquire an appropriate ownership or leasehold interest in that facility to comply with Section 5 of the Act.

The details of the ownership or leasehold arrangement are uncertain, but would not have a bearing on the environmental impacts of mercury storage, and therefore are not presented in this EIS. Examples of DOE’s use of leased facilities includes the Albuquerque Transportation and Technology Center and the Kansas City Responsive Infrastructure Manufacturing and Sourcing Project, both to be constructed by private developers and leased by the U.S. General Services Administration for DOE (Honeywell 2008). As described in Chapter 1, Section 1.2, DOE would take title to any mercury stored in the new facility and, therefore, would be responsible (financially and otherwise) for its long-term management.

As discussed previously in **Section 2.1** of this CRD, although a Preferred Alternative has been identified, DOE has not made a decision. DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

2.4 MERCURY INVENTORY AND SOURCES

The major issues identified in the public comments that are associated with mercury inventory and sources are (1) what is the current inventory in storage versus projected future generation of elemental mercury; and (2) what are the assumptions regarding where the mercury would come from that would be received for storage.

Issue:

Commentors made statements referencing the current inventories of mercury and how much of the 10,000 metric tons (11,000 tons) exists as surplus mercury today compared with the share that is projected to be generated over the next 40 years. One commentor suggested that since Nevada currently stores a majority of the mercury, the DOE facility should be located in Nevada.

Discussion:

As described in the text box in Chapter 1, Section 1.3.1, the Defense Logistics Agency plans to transfer 4,400 metric tons (4,900 tons) of elemental mercury to the Hawthorne Army Depot near Hawthorne, Nevada,

for storage; this inventory of mercury is not included for analysis in this *Mercury Storage EIS*. Recently, the Nevada Division of Environmental Protection approved a pilot-scale transfer of a portion of the Defense Logistics Agency mercury to the Hawthorne Army Depot (Elges 2010).

Chapter 1, Section 1.3.1, discusses the sources and estimated quantities of mercury that are part of the scope of this EIS. Currently, none of the excess mercury inventories analyzed in this EIS are known to be stored in Nevada. The existing inventories of mercury analyzed in this EIS are from chlor-alkali facilities and Y-12, which are outside of Nevada. The other sources of potential mercury inventories (e.g., byproduct mercury and mercury from reclamation and recycling facilities) are projected over the next 40 years. As discussed in Section 1.3.1 and as presented in Table 1-1, the generation of byproduct mercury is projected to be between 3,700 and 4,900 metric tons (4,100 and 5,400 tons) over the next 40 years. Most of this byproduct mercury is projected to come from gold mining in Nevada. As described in Section 1.5.1 and Chapter 2, Section 2.4.4, storage of 10,000 metric tons (11,000 tons) of mercury at the Hawthorne Army Depot is considered in this *Mercury Storage EIS*.

Note also that the majority of excess elemental mercury projected to be available for storage in a DOE facility would, in fact, not be of DOE origin (see Chapter 1, Table 1-1). However, Section 5 of the Mercury Export Ban Act of 2008 designates DOE to be the Federal agency responsible for the identification and operation of such a long-term storage facility, regardless of its origin.

Issue:

Commentors questioned why the Y-12 mercury would be transported to the DOE facility while there is still a need for mercury to support some ongoing DOE missions.

Discussion:

The Mercury Export Ban Act of 2008 requires DOE to construct and operate a facility for the long-term storage of elemental mercury; however, the Act does not require that mercury be transferred to the facility. Furthermore, there may be some ongoing DOE missions that require the use of elemental mercury. Therefore, as described in Chapter 1, Section 1.3.1, either the entire inventory of Y-12 mercury or a portion of this inventory could be retained in storage at Y-12.

2.5 AFFECTED ENVIRONMENT

The major issues identified in the public comments that are associated with the affected environment of the candidate sites are (1) concerns about whether the environmental data presented for the candidate sites were current and accurate; (2) concerns regarding the locations of the groundwater aquifers at WCS; (3) concerns about the definition of the affected environment at Hanford; and (4) concerns that severe weather events at WCS were not adequately addressed.

Issue:

Commentors expressed concern that descriptions of the affected environment at the candidate sites, presented in Chapter 3, may be outdated or inaccurate.

Discussion:

As demonstrated in Chapter 3, DOE conducted a thorough analysis of pertinent issues at the seven alternative sites considered in the *Draft Mercury Storage EIS*, utilizing a wide range of data sources, including other NEPA documents, site environmental reports, licensing documents, and resource-specific studies. Since publication of the draft EIS, DOE has updated a number of references, including, for example, DOE's annual site environmental reports. DOE believes that it has adequately described the existing environment at each of

the candidate sites in this *Final Mercury Storage EIS*. A complete listing of references used in the preparation of Chapter 3 is presented in Section 3.10.

Issue:

Commentors stated that the Draft Mercury Storage EIS inaccurately represented the location of the Ogallala Aquifer in relation to WCS.

Discussion:

Chapter 3, Section 3.8.2.1, describes the geologic strata that compose the High Plains Aquifer (also known as the Ogallala Aquifer) in the vicinity of the site. These include the unconsolidated sediments of the Ogallala, Antlers, and Gatuna Formations, which are informally called the OAG unit. Section 3.8.3.2 describes regional and local groundwater conditions, including the occurrence of the High Plains Aquifer. The “dry line,” or southernmost extent of groundwater saturation in the OAG unit, has been mapped to the north and east of the current WCS facilities. A review of geologic mapping, as summarized in Section 3.8.2.1, shows that an underlying bedrock feature (known as the red bed ridge) serves to deflect upward, thin, and locally “pinch out” the OAG unit in the immediate vicinity of the WCS facilities.

Construction and routine operation of a mercury storage facility are not expected to have any impact on groundwater beneath WCS (see Chapter 4, Sections 4.9.3.1 and 4.9.3.2). The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility.

Issue:

A commentor stated that NEPA documents associated with Hanford need to include an expanded definition of affected environment that includes “viewscales” and “soundscales” and describe the existence of subsistence economies and communities that are of particular interest to American Indian tribal nations. Further, the commentor suggested that these aspects of the affected environment should be discussed in consistent detail across all candidate sites.

Discussion:

While the specific comment was directed at Hanford, DOE has included sections in this *Mercury Storage EIS* for all of the candidate sites that address both the existing environment and environmental consequences of the proposed action on visual resources, noise, and American Indian resources. These resource areas were described consistently across the seven alternative mercury storage sites. For example, the U.S. Bureau of Land Management’s visual resource management classification system was used to represent visual conditions and changes resulting from constructing a mercury storage facility(ies) at each site. As discussed in the “Land Use and Visual Resources” sections of Chapter 4, there would be no change in the visual resource management class at any of the sites due to construction of a storage facility(ies).

Existing sources of noise at each site, noise standards, and present noise levels, where available, were provided in Chapter 3 for each site. In general, as addressed in the “Noise” sections of Chapter 4, noise impacts at each site were determined to be of short duration and negligible during construction and negligible during operation. Transportation of mercury to the sites also was found to result in a negligible increase in noise levels (i.e., less than 1 decibel A-weighted).

With respect to American Indian resources, DOE recognizes that American Indian ties to the environment are complex and that, to many American Indians, individual and collective well-being is derived from

membership in a healthy community that has access to, and utilization of, ancestral lands and traditional resources, so that they may fulfill their part of the natural cycles and their responsibility to uphold the natural law. Accordingly, DOE recognizes that its actions can affect American Indian resources and ceremonies. Specifically, DOE has incorporated the views of the Confederated Tribes of the Umatilla Indian Reservation and Nez Perce at Hanford into Chapter 3, Section 3.3.6.3. DOE has also consulted with area and regional tribal nations who may have an interest in the proposed action (see Chapter 5, Section 5.4.3).

Issue:

Commentors expressed concern that characterization of WCS was inadequate with respect to severe weather events such as tornadoes, thunderstorms, and floods.

Discussion:

Severe weather events were characterized in the “Meteorology” section for each alternative site, while flooding potential was described in the “Surface Water” section for each site. This characterization was based on information found in National Oceanic and Atmospheric Administration, National Climate Data Center, and site environmental documents. For WCS, Chapter 3, Section 3.8.4.1, summarizes the climate and severe weather of the region, while Section 3.8.3.1 describes the potential flood hazard. Chapter 4, Sections 4.9.3.1 and 4.9.4.1, of this EIS note that the proposed mercury storage facility would be designed and constructed to avoid any drainage features that could be subject to flooding and to safeguard the facility from severe weather events.

Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site, including WCS. Tornadoes of severity F1 and F0 (using the Fujita or “F” scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D–6, the predicted annual strike rate for an F2 or more-severe tornado at WCS is less than 1 in a million. The analysis of facility accidents conducted for this EIS also addresses the potential for accidental release of mercury resulting from high winds, tornadoes, floods, and lightning strikes, as presented in Section D.2.5. This topic is further addressed in Section 2.7 of this CRD.

2.6 ENVIRONMENTAL CONSEQUENCES

The major issues identified in the public comments that are associated with environmental consequences of long-term mercury storage are (1) potential for leaks to impact water resources, (2) cumulative impacts and comingling with other contaminants at a candidate site, (3) compliance history of a candidate site, and (4) environmental justice analysis.

Issue:

Commentors stated that potential impacts on groundwater should be analyzed. Particularly, commentors expressed concern regarding potential impacts on the groundwater aquifers at WCS near Andrews, Texas, and at Hanford near Richland, Washington.

Discussion:

As described in Chapter 2, Section 2.3.2, and the “Water Resources” sections of Chapter 4 of this EIS, best management practices, including adherence to an integrated contingency plan and spill prevention, control, and countermeasures plan for mercury storage, would be employed at all candidate sites to prevent spills and releases. For Hanford and WCS, see Chapter 4, Sections 4.4.3 and 4.9.3. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and

countermeasures plan, or equivalent plans as mandated by state requirements for RCRA-permitted facilities, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Finally, for the reasons stated in Appendix D, Section D.2.4, of this EIS, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility. This contention is based on decades of experience in maintaining the DOE Y-12 mercury and the Defense National Stockpile Center's mercury.

Issue:

Commentors expressed concern regarding the safety of storing elemental mercury in close proximity to radioactive and nonradioactive hazardous wastes and the potential of these wastes to create a combined or additive impact.

Discussion:

DOE is cognizant of compatibility issues with mercury storage. As discussed in Chapter 2, Section 2.2, DOE has developed guidance, entitled *U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury (Interim Guidance)* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The *Interim Guidance* discusses DOE's anticipated waste acceptance criteria for all mercury to be stored at the facility(ies). Elemental mercury would be stored in a dedicated facility specifically designed and/or modified for the long-term storage of elemental mercury containers; therefore, mercury would not be stored with other waste types. The proposed mercury storage facility(ies) would only store elemental mercury that is at least 99.5 percent pure. DOE analyzed impacts on resource areas in Chapter 4 and their potential to contribute to cumulative impacts in Section 4.11. The contribution to cumulative impacts for all resource areas was determined to be negligible.

Issue:

Commentors suggested that since five of the seven candidate sites have RCRA permit experience, their respective compliance histories should be considered in evaluating potential impacts that might result from operating a long-term mercury storage facility.

Discussion:

In addition to RCRA, the sites being considered in this EIS operate under a wide range of Federal and state requirements as well as DOE Orders. Due to the varied nature of the sites under consideration, the different regulatory schemes under which they operate, and differences between existing site operations and the proposed elemental mercury storage facility(ies), a fair comparison of the sites' compliance histories would be difficult. For those interested in compliance history, information is available through the EPA Enforcement and Compliance History Online (ECHO) database (<http://www.epa.gov/oecaerth/data/systems/multimedia/echo.html>). In addition, information for DOE sites is summarized in annual site environmental reports (<http://www.em.doe.gov/Pages/asers.aspx>).

Issue:

It was suggested that in its environmental justice analyses, the draft EIS should more fully analyze potential health and environmental impacts on minority and low-income populations, including the use of a national statistic to identify the appropriate unit of geographical analysis.

Discussion:

As described in Appendix B, Section B.11, DOE used its established methodology for the environmental justice analyses for all resource areas. The seven sites addressed in the EIS were evaluated and compared for

their local characteristics. The major goal in DOE's environmental justice analyses is to identify "disproportionately high and adverse" impacts, as directed in Executive Order 12898. To identify a minority population in a given geographic area, DOE used either a threshold defined as 20 percentage points above the state or county population data or a 50 percent threshold, whichever value is lowest. The use of census block data as the unit of geographical and demographic measure is comparable from location to location. Environmental impacts on resource areas for all potential candidate mercury storage sites are discussed in detail in Chapter 4, and a summary of environmental impacts is also provided in Chapter 2, Section 2.7.1. Because the results of the analyses indicate that the risks of environmental impacts on any resource area are predicted to be negligible to low, and the risks of high and adverse impacts on human health surrounding candidate sites and along potential transportation routes are likewise predicted to be negligible to low, the corresponding risks to minority and low-income populations would be low. The environmental impacts analyses for those candidate mercury storage sites where minority or low-income populations were identified are discussed in detail in Chapter 4, Sections 4.7, 4.8, and 4.9. Although DOE has reported its environmental justice conclusions based on results from the methodology used in the draft EIS, DOE has included information about the percentages of minority and low-income populations immediately surrounding the sites analyzed (See Table 3 in the *Summary and Guide for Stakeholders* and Table 2-1 in Chapter 2).

For each of the candidate mercury storage sites where the region of influence was determined to contain minority or low-income populations, factors including potentially susceptible populations and access to health care were discussed. Please see Chapter 3, Sections 3.6.11, 3.7.11, and 3.8.11, and Chapter 4, Sections 4.7.12, 4.8.12, and 4.9.12.

2.7 HUMAN HEALTH IMPACTS AND ACCIDENT ANALYSIS

Issues identified in the public comments that are associated with human health impacts are (1) concerns regarding the development and use of threshold values for evaluating human health effects; (2) concerns regarding a potential mercury storage building fire; (3) impacts resulting from seismic events, flooding, tornadoes, and high winds; and (4) responsibility for cleanup and emergency response after an accident.

Issue:

Commentors questioned the development of exposure threshold values and the application of these values in determining potential consequences to human health. Specifically, it was suggested that Temporary Emergency Exposure Limits (TEELs), as related to the American Conference of Governmental Industrial Hygienists threshold limit values and Occupational Safety and Health Administration permissible exposure limits, should be used in place of the surrogate Acute Exposure Guideline Level 1 (AEG1-1), defined as $0.1 \times \text{AEG1-2}$, which was developed for use in the Draft Mercury Storage EIS because no AEG1-1 exists for mercury.

Discussion:

DOE has adopted the commentor's suggestion and is now using the TEEL-0 for exposures exceeding 1 hour and DOE's Protective Action Criterion 1 for exposures to up 1 hour instead of the surrogate AEG1-1. See the revised discussion in Appendix D, Section D.1.1.2.1.

Issue:

Commentors expressed concern that an accidental building fire and potential resultant impacts on workers and public health were not analyzed in the draft EIS.

Discussion:

Elemental mercury does not burn or act as a source of ignition. However, a building fire or a transportation accident involving leaking containers and fire could cause volatilization and deposition of mercury vapors

downwind and could result in adverse impacts on human health and the environment. As discussed in Chapter 4, Section 4.2.9.1.4, the frequency and impacts (risks) from a building fire, as applicable to all candidate mercury storage sites, were determined to be negligible due to the existence of a reliable sprinkler system and limits on the amount of flammable materials that would be present in the building. Several factors, presented in Appendix D, Sections D.2.4.5 and D.2.4.6, contribute to this conclusion: (1) forklifts would be electric, so they would not provide a source of fuel for a fire; (2) there would be no fuel lines or fuel storage vessels inside the mercury storage building; (3) there would be no flammable materials in the construction of the building; (4) administrative controls would limit the amount of flammable material kept in the building; (5) the wooden pallets that contain the mercury flasks would be treated with fire-retardant coatings; and (6) there would be a fire suppression system in place.

Issue:

Commentors expressed concern about natural disasters and their potential for causing a harmful release of mercury into the environment. Specifically, impacts from earthquakes, floods, tornadoes, and sustained high winds were cited as issues at several of the candidate sites. In particular, commentors stated that seismic events, tornadic events, and high winds known to occur at WCS near Andrews, Texas, and flooding and tornadic events at KCP in Kansas City, Missouri, were not given enough consideration in the draft EIS.

Discussion:

DOE has evaluated the existing environment as it relates to earthquakes, flooding, and tornadoes, as well as the hazards they pose to the storage of elemental mercury at each candidate mercury storage site. Hazards, including earthquakes, flooding, and severe weather, were evaluated with respect to the proposed construction and operation of a mercury storage facility(ies), as described in the “Geologic Hazards,” “Surface Water,” and “Meteorology” sections, respectively, of Chapters 3 and 4. The characterization of WCS relative to earthquakes and tornadoes is presented in Chapter 3, Sections 3.8.2.3 and 3.8.4.1. Chapter 2, Table 2–4, shows that WCS has one of the lower measures of seismic risk among the seven candidate locations. Chapter 4, Section 4.9.9.2, specifically assesses the effects earthquakes could have on a mercury storage facility at WCS and concludes that the risk is minimal. A long-term mercury storage facility would be built in accordance with local building codes and would consider design factors to mitigate potential impacts from potential earthquakes and wind loads, as described in Sections 4.9.2.2 and 4.9.4.1.

Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site, including WCS and KCP. Tornadoes of severity F1 and F0 (using the Fujita or “F” scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D–6, the predicted annual strike rate for an F2 or more-severe tornado on a proposed storage facility is less than 1 in a million at WCS and less than 1 in 40,000 at KCP.

Chapter 4, Section 4.2.9.1.4, and Appendix D, Section D.2.5.4, present DOE’s analysis of the flood threat. Specific to the flood hazard at KCP, Chapter 3, Section 3.6.3.1, describes the flooding potential of the Blue River and Indian Creek, including the contribution from urban development, and also discusses the site’s flood protection system. Chapter 4, Section 4.7.3.1, specifically describes the potential impacts on surface water from siting a mercury storage facility at KCP. While the main structures within KCP are protected from the 500-year flood, the flood protection system is not a passive system and requires the flood gates to be closed manually, as described in Section 4.7.3.1.

Issue:

Commentors questioned who would bear the responsibility and liability for cleanup and emergency response if a release of mercury into the environment occurs or a site becomes contaminated as a result of mercury storage operations.

Discussion:

DOE would take ownership of the mercury delivered to a designated facility and indemnify the generators from future liability, in accordance with the provisions of the Mercury Export Ban Act of 2008. DOE would be responsible for any harm caused by the mercury after such mercury is delivered and accepted for long-term storage at a designated facility.

As described in Chapter 1, Section 1.6, Section 5 of the Act authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury.

The generators of the mercury will be responsible for the delivery of mercury to the DOE facility(ies). Transportation of mercury would be in accordance with applicable RCRA hazardous waste and U.S. Department of Transportation hazardous material shipping requirements.

2.8 TRANSPORTATION

The major issues identified in the public comments that are associated with transportation are (1) concern regarding the lack of analysis of specific transportation routes for each candidate site; (2) concern regarding the number of shipments to and from the mercury storage facility(ies); and (3) concern regarding the lack of analysis of impacts resulting from the transportation of mercury from the mercury storage facility(ies) before facility closure.

Issue:

Commentors expressed concern that each candidate site was not evaluated properly because specific transportation routes were not analyzed, and therefore, the full impact of accidents was not accurately represented in the EIS. For example, they stated that transportation routes to one candidate site may be adjacent to environmentally sensitive areas (e.g., rivers) for longer stretches compared with routes to another candidate site. Thus, potential adverse impacts are not simply a function of comparing the distance traveled to one site with that to another. Other commentors expressed concern regarding the number of shipments that would be delivered to the facility.

Discussion:

The generators of the mercury will be responsible for delivery of the mercury to the DOE facility(ies).

Transportation of mercury would be in accordance with applicable RCRA hazardous waste and U.S. Department of Transportation hazardous material shipping requirements. Appendix C, Section C.1, provides a brief description of the shipping modes and containers that would be used to transport mercury from the existing storage and generation sites to the new DOE storage facility(ies). Pursuant to Section 5 of the Mercury Export Ban Act of 2008, DOE's *Interim Guidance* contains more-detailed information on how transportation to the mercury storage facility(ies) would be conducted.

As is currently the case for the transport of mercury and other hazardous materials and wastes, in the event of a serious transportation accident, the local fire department has the primary first-response responsibility. Fire department personnel would be responsible for assessing the significance of any accident and determining if the evacuation of nearby residents is warranted. If the release of mercury is detected, hazardous materials response teams would be called in to assess, contain, and clean up the contamination. Commercial hazardous waste shipping companies are required to carry insurance to cover accident cleanup costs.

Based on Appendix D, Section D.2.7.3, it is estimated that a truck accident with a spill would occur approximately once every 250 years. The predicted occurrence of a rail accident with a spill declines to approximately once every 77,000 years.¹ Additionally, for an adverse impact to occur on a water body along a particular route, an accident with a spill would likely have to cause a release of substantial quantity of mercury (e.g., multiple containers would have to be breached) while traveling adjacent to or over a water body. Section D.2.8 provides a more-detailed discussion of potential mercury spills into water bodies, and Section D.5.4.2 discusses the possible consequences. As presented for each of the candidate sites in Chapter 4, in the unlikely event of an accident with a spill into a water body, the consequences are projected to be negligible to low. However, there is a high range of uncertainty regarding this conclusion due to the difficulty in predicting the physical and chemical characteristics of all possible water bodies into which a spill might occur.

Shipment estimates are presented in Appendix C, Section C.1. Under Truck Scenario 2 (partially loaded trucks), there would be about 79 truck shipments per year between 2013 and 2014, 39 per year between 2015 and 2019, and 27 per year between 2020 and 2052. If mercury is transported by rail, there would be about 23 rail shipments per year between 2013 and 2014, 8 per year between 2015 and 2019, and only 5 per year between 2020 and 2052.

Issue:

Commentors expressed concern that analysis of eventual closure of the mercury storage facility(ies) did not take into account the transportation of mercury out of the facility.

Discussion:

DOE acknowledges the commentors' concerns regarding closure of the mercury storage facility and disposition of the stored elemental mercury. Circumstances under which the facility(ies) would be closed are highly speculative, as are the potential environmental impacts; Chapter 4, Section 4.10, recognizes these uncertainties. Please note that the mercury storage facility(ies) would not necessarily be shut down at the end of 40 years. In the event that storage beyond the 40-year period of analysis becomes necessary, more than 10,000 metric tons (11,000 tons) need to be stored, or mercury needs to be transported to another facility for treatment or disposal, additional NEPA documentation may be required. However, it is reasonable to predict that the transportation impacts associated with moving the mercury from the storage facility(ies) to another facility(ies) due to facility closure would be similar to those associated with moving it to the new storage facility(ies).

¹ The values presented in Appendix D, Section D.2.7.3, are presented in Table D-14 for Truck Scenario 2 and in Table D-15 for the Railcar Scenario; these values are in exponential form. The highest frequency is for the Hanford Site: 4.1×10^{-3} per year for Truck Scenario 2 and 1.3×10^{-5} per year for the Railcar Scenario. The value of 4.1×10^{-3} is equivalent to 0.0041 accidents per year, 41 accidents per 10,000 years, or approximately 1 accident every 250 years. The value of 1.3×10^{-5} is equivalent to 0.000013 accidents per year, 13 accidents per 1 million years, or 1 accident every 77,000 years.

2.9 COST

The major issues identified in the public comments that are associated with cost are that the draft EIS did not include life-cycle costs associated with long-term storage of mercury.

Issue:

Commentors expressed concerns that the draft EIS did not address or consider life-cycle costs associated with construction, operation, and deactivation of a long-term storage facility(ies) or the costs to ultimately treat and dispose of mercury.

Discussion:

Costs are not presented in this *Mercury Storage EIS*. As described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act of 2008 authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury. In addition, the generators of the mercury will be responsible for the costs of shipping mercury to the DOE storage facility(ies).

At this time, a final disposal pathway for high-purity elemental mercury wastes is not available, nor is it reasonable to speculate what kind of technology would be approved by EPA for treatment of high-purity elemental mercury wastes. Therefore, the costs associated with treatment and disposal cannot be determined or reasonably estimated. Because future options that may become available for the ultimate treatment and disposal of elemental mercury are unknown, it is not possible to determine the life-cycle costs of mercury management and storage.

SECTION 3
PUBLIC COMMENTS AND DOE RESPONSES

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**Commentor No. 1: Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**



Nez Perce

TRIBAL EXECUTIVE COMMITTEE

P.O. BOX 305 • LAPWAI, IDAHO 83540 • (208) 843-2253

November 4, 2009

Mr. David Levenstein
EIS Document Manager
Office of Regulatory Compliance (EM-10)
U.S. Department of Energy
P.O. Box 2612
Germantown, MD 20874

RE: Notice of Intent to prepare an Environmental Impact Statement for the Long-term Management and Storage of Elemental Mercury

Dear Mr. Levenstein:

The Nez Perce Tribe retains treaty reserved rights in the Mid-Columbia region under the Treaty of 1855 with the United States Government. These rights have been recognized and affirmed through subsequent Federal and State actions. These actions protect Nez Perce rights to utilize our usual and accustomed resources and resource areas, including those in the Hanford Reach of the Columbia River. Accordingly, the Nez Perce Tribe Environmental Restoration and Waste Management program (ERWM) receives support from the Department of Energy (DOE) to participate in and monitor relevant DOE activities at Hanford.

The Nez Perce Tribe is opposed to any potential Mercury repository at Hanford due to the significant detrimental impacts it would have to treaty-reserved rights of the Nez Perce Tribe. It is the opinion of the Nez Perce Tribe that a "reference location" for a Mercury disposal at Hanford involves Trust Resources under the natural resource trusteeship rules. As a Trustee, we maintain the right to be involved in the Hanford component of the National Environmental Policy Act (NEPA) evaluation for the Mercury repository.

DOE has associated obligation of the federal fiduciary trustee to the Tribes, and to the natural resource trustees (Tribes, states, and federal government) and their constituencies.

Any NEPA documents that evaluate Hanford needs to describe Affected Tribes and the trust responsibilities of DOE and other federal agencies (NEPA 18, section 6). It needs to include tribal aboriginal rights, treaty rights and describe responsibilities of Executive Orders 12898, 13007, and 13175 [Applicable Relevant and Appropriate Requirements (ARARs)]. This description will help frame the baseline (legal) condition of the Area of Potential Effect (APE).

We have concern with the potential selection of Hanford for the repository because of its proximity to the Columbia River. Mercury levels have already been documented to be elevated in portions of the Columbia System, some exceeding state water quality standards. Mercury is a dangerous neurotoxin.

I-1 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at Hanford, concerns regarding Trust Resources and adherence to applicable regulatory requirements, and request for involvement and status in the NEPA process for this *Mercury Storage EIS*. DOE initiated formal consultation with the Nez Perce Tribe on the draft EIS in December 2009 in correspondence from DOE's Acting Deputy Assistant Secretary for Technical and Regulatory Support to the Chairman of the Nez Perce Tribe's Executive Committee. Previously, designated DOE representatives met with Mr. John Stanfill of the Nez Perce Natural Resources staff on July 28, 2009, during the scoping phase for this EIS. Chapter 3, Section 3.3.6.3, of this EIS presents a discussion of tribal concerns and issues at Hanford in relation to the Treaty of 1855. Chapter 5, Sections 5.2.7 and 5.2.11, describe DOE's responsibilities with regard to Executive Orders 12898, 13007, and 13175 and other relevant statutes and regulations. As described in Chapter 4, Sections 4.4.1 and 4.4.6, DOE has determined that construction and operation of a mercury storage facility within the developed 200-West Area of Hanford would have negligible impacts on land use and visual resources and no direct impacts on known American Indian resources.

I-2 DOE acknowledges the commentor's concerns regarding potential impacts on the Columbia River due to mercury storage. As described in Chapter 2, Section 2.3.2, and Chapter 4, Section 4.3.3.1, of this *Mercury Storage EIS*, best management practices, including adherence to an integrated contingency plan and spill prevention, control, and countermeasures plan for mercury storage, would be employed at all candidate sites to prevent spills and releases. Best management practices that would be employed include the use of spill trays under mercury containers, spill containment features, and regular inspections. Further, in accordance with Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414), DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies) (see Chapter 2, Section 2.2).

I-3 DOE recognizes the potential for the contamination of fish. There are two potential ways in which this might happen: one localized, and one more widespread. The localized event would be the spillage of elemental mercury directly into a river or lake following a transportation accident. This event is discussed qualitatively in Appendix D, Section D.2.8, of this *Mercury Storage EIS*, where it is conservatively concluded that the frequency of such events anywhere along a transportation route is

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**Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

moderate for truck transportation and low for railcar transportation. The frequencies would be much lower for specific bodies of water of interest, for example, to specific American Indian tribes. The consequences of such events are discussed in Section D.4.3.2 of this EIS. There, it is concluded that the processes that are potentially hazardous to humans (such as the conversion of elemental mercury into methylmercury that would subsequently bioaccumulate in fish) are slow. The consequences to humans could be managed so that they are negligible to low for all transportation routes. The corresponding health risks to humans would also be negligible to low.

The other scenario that could potentially lead to fish contaminated by methylmercury is that of a transportation accident with fire, which could cause a plume of inorganic mercury compounds. In principle, this could deposit on the surface of nearby lakes or rivers. If deposited on a slow-flowing or stagnant body of water, most of the mercury would be captured by the sediment. Some of it would convert slowly to methylmercury, some of which would, in turn, enter the water column. There, it could be ingested by fish and ultimately consumed by humans. While recognizing that such a scenario is theoretically possible, DOE considers the chances of humans actually consuming excessive amounts of methylmercury in this way negligible, not least because, should such an event occur, bodies of water under the path of a mercury cloud would be monitored for methylmercury buildup, and fish consumption would be interdicted long before bioaccumulation of methylmercury would reach levels of concern for human health.

Finally, note that the Mercury Export Ban Act of 2008 (P.L. 110-414) was passed because of concerns such as these. The intent is that, by storing mercury instead of exporting mercury, the overall amount of mercury in global air, water, and soil will decrease over time, resulting in lower levels of mercury in fish, other wildlife, and man.

DOE assumes that the commentor is referring to the *Hanford Site National Environmental Policy Act (NEPA) Characterization*. This document, cited as Duncan 2007 throughout the appropriate Hanford sections of Chapter 3, was extensively used during preparation of this *Mercury Storage EIS*. Newer information, such as that available in the annual Hanford environmental reports, supplemented it. All source documents and online resources used in preparing the cited sections of this EIS are listed in Chapter 3, Section 3.10, and are also included in the administrative record.

Young children and pregnant women are cautioned to limit their consumption of locally caught fish when mercury is of concern. The culture of the Nez Perce Tribe relies heavily on salmon and the consumption of fish. A Columbia River Intertribal Fish Commission (CRITFC) fish consumption report indicates that tribal members consume over nine times more fish than the general public. Since Mercury bio-accumulates in fish tissue, this proposal has tremendous implications for the Tribe.

Tribal Values

In essence, tribal values are intent on protecting, preserving, and perpetuating resources for the sake of our cultural survival. It is imperative that materials we use in a subsistence lifestyle be uncontaminated. Once resources become contaminated or lost then part of our connection to the land and part of our culture is lost.

General Comments

- Any new proposals at Hanford should be at a minimum utilize the *Hanford Site NEPA Guidance Document* as a primary reference for creating any NEPA document, especially the Affected Environment section.
- Government-to-Government Consultation: The Nez Perce Tribe expects to be proactively engaged by DOE during the scoping and alternatives development for Hanford proposals. Tribes are part Trustees of Hanford and should be informed and have opportunity to be engaged beyond the NEPA public involvement process. A great example would be tribal involvement with DOE's development of the EIS for the Greater than Class C repository (GTCC).
- NEPA documents at Hanford need to include sections describing Viewscapes and Soundscapes that are important to our tribal culture.
- Socioeconomic Section of a NEPA EIS should receive more focus and have separate sections for "Social" and "Economics".
- Bringing more waste to Hanford may divert DOE management attention from the present cleanup efforts and potentially impact congressional cleanup funding.
- A Mercury repository at Hanford is a conflict from present DOE cleanup efforts.

Specific EIS Comments

The Nez Perce Tribe recommends the draft EIS include the following analysis or issues for the Hanford evaluation. We have summarized the issues/concerns by EIS sections for ease of DOE's organization and inclusion.

Climate

Climate is simply not a snapshot in time. Archaeological evidence supports tribal oral history that speaks of a time when the region was volcanic, to a glacial period, including great floods, and to what we know today. A Mercury repository should consider climate change and extreme weather changes associated over the long life of the repository.

Noise

The Nez Perce Tribe recommends that quiet zones and time periods be identified for known Native American ceremonial locations on and near the Hanford site.

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**Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

I-5 As indicated in Chapter 5, Section 5.4.3, DOE is committed to performing its responsibilities regarding government-to-government consultations. DOE initiated formal consultation with the Nez Perce Tribe regarding the *Draft Mercury Storage EIS* in December 2009 and actively engaged the tribe, as previously noted in the response to Comment No. 1-1.

I-6 DOE has included sections in this *Mercury Storage EIS* that address both the existing environment and environmental consequences of the proposed action on visual resources, noise, and American Indian resources. For Hanford, these sections are Chapter 3, Sections 3.3.1.2, 3.3.4.2, and 3.3.6.3, and Chapter 4, Sections 4.4.1, 4.4.4.3, and 4.4.6.3, respectively. Similar sections are presented for each of the other sites considered for mercury storage. Impacts on these resource areas for all of the candidate sites are summarized in both the "Summary and Guide for Stakeholders" (see Section 5) and Chapter 2 (see Sections 2.7.1.1, 2.7.1.4, and 2.7.1.6).

I-7 DOE acknowledges the commentor's suggestion for the "Socioeconomics" sections of this *Mercury Storage EIS*. Chapter 3, Section 3.3.10, of this EIS describes the socioeconomic conditions of the Hanford region, and the following subsections are presented: "Regional Economic Characteristics," "Demographic and Housing Characteristics," and "Local Transportation." Chapter 4, Section 4.4.11, presents the potential socioeconomic impacts from construction and operation of a mercury storage facility at Hanford. In preparing these sections, DOE sought to evaluate potential socioeconomic impacts, if any, in terms of changes in the demographic and economic characteristics and social conditions in the affected regions, as further described in the socioeconomic methodology presented in Appendix B, Section B.10, of this EIS.

I-8 As stated in Chapter 4, Section 4.4.8, DOE continues to manage several ongoing programs and projects at Hanford in support of sitewide remediation. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.

I-9 Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation and cause either wetter or drier conditions at any particular site. However, this *Mercury Storage EIS* does not attempt to address climate change on a global scale, as any such attempt would be highly speculative

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Non-natural noise can be offensive during traditional ceremonies. Traditional ceremonies have been held and are expected to continue at the Hanford site.

Not all tribal ceremonial sites at Hanford are known to DOE.

Soundscapes: Hanford facilities may presently create noise interference for ceremonies held at Gable Mountain and Rattlesnake Mountain. Noise generating projects can interrupt the thoughts and focus, thus the spiritual balance and harmony of the community participants of a ceremony.

Soils

Hanford in general is composed of sandy soils that do not retain water very well. Consideration must be made for long-term moisture percolation to any underground structure that is part of a Mercury repository.

Soils have a medicinal purpose for tribal healing. Care should be taken at Hanford sites with soils containing important mineral properties like those in the White Bluffs area.

Surface Water

Water is a centerpiece of the American Indian cultures of the Columbia Plateau, so surface waters at Hanford are a high priority to the Nez Perce. Proposal of any new risk or further contamination of the Columbia River system from Hanford operations will receive strong opposition by the Nez Perce Tribe. As stated before, our culture is closely tied to the survival of salmon in the Columbia River system.

Groundwater

DOE's historical record of protecting groundwater is poor. Recent DOE efforts and technological limitations have consistently extended the timeframe of contaminant cleanup. The consideration of a Mercury repository, and its potential to contaminate groundwater over time, seems contrary to the present DOE mission.

The affected environment section needs to fully describe and graphically illustrate the known radioactive and chemical groundwater contaminant plumes surrounding any proposed Hanford Mercury repository location.

Contaminant transport to groundwater is still largely unknown in areas. The actual volumes of contamination within the groundwater and the direction of its flow are not fully characterized. This uncertainty and the limited technical ability to remediate the vadose zone and groundwater put the Columbia River at continual risk.

Human Health

The Nez Perce Tribe is against adding any additional waste to the Hanford site that adds risk to tribal health. Many tribal members still live a traditional lifestyle, or portions thereof, making them more susceptible to becoming contaminated than the general public. A CRITFC fish consumption report form 1992 identified that four Columbia River tribes, including the Nez Perce, consumed over nine times the amount of fish of the general population. Any repository evaluation needs to include a Tribal risk scenario to calculate risk to our members. Mercury bioaccumulation would have to be part of tribal risk scenario. These scenarios will also consider inadvertent intruder scenarios, as required by DOE Order 435-1.

**Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

Ecology

The USFWS and its 165,000 acre Hanford Reach National Monument (HRNM) on the site includes rare plant and wildlife species that must be considered during the NEPA evaluation.

DOE needs to review the USFWS Comprehensive Conservation Plan that was prepared for managing the HRNM.

Columbia River tribes have created a salmon recovery plan called the Wy-Kan-Ush-Mi Wa-Kish-Wit (Spirit of the Salmon). We would expect that DOE's Mercury EIS evaluation would consider the goals and objectives of this plan and document in the EIS for public review any potential conflicts the repository might have with this salmon recovery plan.

Socioeconomics

A goal of the Columbia River tribes, the federal, state, and local governments is to recover Columbia River salmon runs. Huge monetary and strategic efforts have been made to that end. Any salmon recovery would substantially change the social and economics of the region. For example our tribal subsistence economy would again flourish. The Economics section needs to describe a subsistence economy as part of the overall economic description. This "personal" enterprise is a term used by economists for self and community reliance on the environment for existence as opposed to employment and modern economies.

Environmental Justice

DOE needs to develop, with assistance from affected tribes, a definition for Environmental Justice (EJ) in Indian country. A tribal EJ definition needs to include sovereign nation-state status, federal trust responsibility, and include treaty and aboriginal rights.

Land Use

We assume that the DOE's goal is for Hanford to be fully restored and protected.

We maintain that aboriginal rights allow for the protection, access to, and use of open and unclaimed lands of the Hanford site when human health and safety are not in jeopardy.

These are sites or locations within the existing Hanford site boundary that should be considered for special protections or set aside for tribal ceremonial uses.

The Nez Perce Tribe proposes that ceremonial sites be placed in co-stewardship with DOE, USFWS, and the affected tribes for long-term management and protection.

The Comprehensive Land Use Plan (CLUP) has institutional controls (IC) that limit present and future uses by Native Americans. These ICs should be described as part of the affected environment. Any new proposals that extend, expand, or create new ICs should be considered cumulative impacts to native people.

The 50-year management time horizon of the CLUP and its land use designations are often incorrectly assumed to be permanent designations. CLUP land use designations and their boundaries can be changed at the discretion of DOE with recommendations by Hanford stakeholder, including affected Tribes.

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given the available information, especially considering the 40-year period of analysis of this EIS. Severe weather and climate were otherwise evaluated with respect to the proposed construction and operation of a mercury storage facility(ies), as described in the meteorology sections of Chapters 3 and 4. For Hanford, Chapter 3, Section 3.3.3.1, specifically describes the site flood hazard, including the probable maximum flood, while Section 3.3.4.1 summarizes the climate of the region and severe weather. As described in Chapter 4, Section 4.4.3.1, the proposed mercury storage facility site in the Hanford 200-West Area is not subject to riverine or stream flooding. The section also identifies the facility design elements that would be used, as necessary, to safeguard the mercury storage facility from flooding. Section 4.4.4.1 describes the potential impacts of meteorological conditions on the construction and operation of a mercury storage facility at Hanford. Section 4.1.4.2 specifically evaluates the proposed action's contribution to global climate change.

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DOE has included sections in this *Mercury Storage EIS* that address both the existing environment and environmental consequences of the proposed action on noise and American Indian resources. For Hanford, these sections are Chapter 3, Sections 3.3.4.2 and 3.3.6.3, and Chapter 4, Sections 4.4.4.3 and 4.4.6.3, respectively. Impacts on these resource areas for all of the candidate sites are summarized in both the "Summary and Guide for Stakeholders" (see Section 5) and Chapter 2 (see Sections 2.7.1.1, 2.7.1.4, and 2.7.1.6).

In summary, noise impacts at Hanford were determined to be of short duration and negligible during construction and negligible during operation. Transportation of mercury to Hanford would also result in a negligible increase in noise levels (less than 1 decibel A-weighted) along Washington State Route 240.

Nevertheless, DOE recognizes that its actions could affect American Indian resources and ceremonies and has initiated the consultation process with area and regional tribal nations who may have an interest in the proposed action and alternatives (see Chapter 5, Section 5.4.3).

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Chapter 2, Section 2.2, of this *Mercury Storage EIS* summarizes the conceptual design of a new mercury storage facility(ies). Also, in accordance with Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414), DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and

**Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

DOE managers must evaluate as part of NEPA any potential access concerns to ceremonial sites. According to the American Indian Religious Freedom Act (AIRFA), tribal members have a protected right to conduct religious ceremonies at locations on public lands where they are known to have occurred. Executive Order 13007 state that Tribal members have the right to access ceremonial sites. DOE and USFWS must maintain trails or roads that presently provide access to known ceremonial sites.

New culturally significant findings are required to be added to the list of sites and locations with special cultural protections. These protections override any land use designation of the CLUP or other resource documents.

Transportation

Potential shipment routes accessing the Hanford site need to be described. Likely travel routes will cross many major rivers and salmon-bearing watershed that already have elevated mercury levels or have inadequate information on existing mercury levels. These salmon-bearing streams are very important to affected tribes.

Cultural Resources

From a tribal perspective, all things of the natural environment are recognized as cultural resources. Nature provides for a subsistence lifestyle. Thus, the daily interaction with the land is our culture and is also a direct practice of our religious beliefs.

At a minimum, the Hanford Cultural Resource Plan should be viewed for site locations and protection processes.

Many cemeteries, ceremonial sites, and other sacred sites exist throughout the Hanford Site.

Salmon are an important cultural resource and its future existence is intertwined with the existence of affected tribes, including the Nez Perce.

Waste Management

A proposed repository seems contrary to the present DOE mission under present RCRA and CERCLA cleanup efforts. These cleanup strategies include the proposed Central Plateau Strategy and the 2015 Vision for the River Corridor are of Hanford. These mission conflicts need to be articulated as part of the proposed Mercury EIS document.

Cumulative Impacts

The APE for the cultural landscape should include areas across the lower Columbia Plateau from the Wallula Gap to the Santinel Gap.

Any new institutional controls from a Mercury repository should be considered cumulative impacts to native people.

Individual and community Indian health relies on use of abundant uncontaminated resources as part of a traditional lifestyle. Any risk to further contamination of Hanford natural resources will require a tribal scenario for calculating cumulative risk to member of affected tribes.

procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). No portion of the storage facility(ies) would be constructed below ground level. The design, construction, and operation of the mercury storage facility(ies) would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as stated in Chapter 4, Section 4.4.3.1, of this EIS for Hanford. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1, of this EIS. As noted in Chapter 4, Section 4.4.2.1, facility construction and operation in the Hanford 200-West Area would have negligible impacts on site geology and soils. Required geologic resources would be procured from local and/or regional commercial vendors. Adherence to best management practices for soil erosion and sediment control would minimize soil erosion and loss; no impacts on areas outside the 200-West Area are expected.

DOE acknowledges the commentor's concerns regarding ongoing environmental cleanup at Hanford, the threat of groundwater contamination, and compatibility of mercury storage with DOE's mission. With respect to cleanup of wastes and associated groundwater contamination at Hanford, the proposed action and the existing cleanup missions are independent programs; thus, actions related to one would not impact the other. Cleanup activities at Hanford continue to be a high priority for DOE. As referenced previously in response to Comment Nos. 1-2 and 1-12 and described in Chapter 4, Section 4.4.3.1, operation of a mercury storage facility is not expected to have any impact on surface water or groundwater quality. Facility operations would be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. As to DOE's mission scope, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) directs DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States. Thus, the responsibility of managing and storing elemental mercury has been assigned by Congress to DOE and is, therefore, one of its missions.

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**Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

In conclusion, thank you for your consideration of our concerns regarding the Notice of Intent to prepare an EIS for the Long-Term Management and Storage of Elemental Mercury. If you have any questions or comments regarding this letter, please contact our ERWM program at (208) 843-7375.

Sincerely,


Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee

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Groundwater beneath Hanford is described in Chapter 3, Section 3.3.3.2; this description includes the fact that groundwater quality beneath large portions of Hanford has been affected by past liquid waste discharges. This characterization of groundwater quality is based on the latest available groundwater monitoring report for Hanford, which has been incorporated by reference into this EIS and contains detailed information on this subject, including illustrations of contaminant plumes. The report is cited in Section 3.3.3.2 as Hartman, Richie, and Rediker 2009 and is listed in the reference list in Section 3.10. The report and other reports related to the Soil and Groundwater Remediation Project at Hanford are available online (see <http://www.hanford.gov/nl/?page=1334&parent=1333>). Please note that DOE has an electronic copy of all references cited in this *Final Mercury Storage EIS* in its administrative record; thus, whether a website's address changes or content is removed from a given website, a reader can request a copy of any given reference.

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Exposure to methylmercury via fish consumption is analyzed in Appendix D, Sections D.1.1.2.7, D.4.5, and D.4.7. The scenarios considered include those for "subsistence fishermen" consuming fish at up to 10 times the national average rate. Therefore, the EIS effectively contains a tribal risk scenario. With specific reference to Hanford, fish consumption scenarios are summarized in Chapter 4, Section 4.4.9.3.3.

DOE Order 435.1 concerns radioactive waste management. It is therefore not relevant to the proposed storage of elemental mercury, none of which will be radioactive.

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Ecological resources of Hanford are addressed in Chapter 3, Section 3.3.5, of this *Mercury Storage EIS*, while rare species are addressed in Section 3.3.5.4. Also provided in Section 3.3.5.4 is a table (Table 3-5) listing all federally and state-listed species that potentially occur at Hanford. As explained in Chapter 4, Section 4.4.5.3, there are no threatened and endangered species present in the area of the proposed storage facility. Further, special status species that occur on the Hanford Reach National Monument would not be affected by the proposed action due the distance between the monument and the 200-West Area.

**Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

- I-16** Chapter 3, Sections 3.3.3.1 and 3.3.5.3, of this *Mercury Storage EIS* note the importance of the Columbia River as a salmon fishery. As described in response to Comment No. 1-13, construction and operation of a mercury storage facility at Hanford would have negligible impacts on water resources, including the Columbia River and its resources. DOE does not foresee that operation of a mercury storage facility would cause conflict with the goals and objectives of the Columbia River tribes' salmon recovery plan.
- I-17** DOE recognizes the potential health and environmental threats that may affect people who practice subsistence living due to differential patterns of consumption. The analyses presented throughout Chapter 4 and Appendix D of this *Mercury Storage EIS* conclude that the consequences of transportation accidents could be managed so that they are negligible to low for all transportation routes and the corresponding health impacts would be negligible to low. Since the impacts on environmental resources, which represent a subsistence economy, would present negligible-to-low risks to human receptors, a description of a subsistence economy is unnecessary.
- I-18** The methodology used to develop the "Environmental Justice" sections of this *Mercury Storage EIS* is described in Appendix B, Section B.11. The Council on Environmental Quality issued its guidance for the evaluation of environmental justice in December 1997 (CEQ 1997). This guidance was used as the basis for the evaluation of environmental justice presented in this EIS. It is beyond the scope of this document to develop new guidance relative to tribal environmental justice.
- I-19** As more fully described in the response to Comment No. 1-12, cleanup activities at Hanford continue to be a high priority for DOE. Within the scope of this *Mercury Storage EIS*, DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414). Tribal government access to portions of Hanford, other than those portions of the site considered for use as an alternative location for long-term management and storage of mercury, is not within the scope of this EIS.
- I-20** DOE acknowledges the commentor's concerns regarding access restrictions at Hanford. Chapter 3, Section 3.3.1.1, of this *Mercury Storage EIS* describes the land use designations at Hanford, as adopted by DOE in accordance with the *Hanford Comprehensive Land-Use Plan Environmental Impact Statement* (DOE 1999). Existing and proposed future uses of the 200 Areas, in which the proposed mercury

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**Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

storage facility would be located, are also described. As described in Chapter 4, Sections 4.4.1 and 4.4.6, construction and operation of a mercury storage facility within the developed 200-West Area of Hanford would have negligible impacts on land use and visual resources and no direct impacts on American Indian resources. Siting the mercury storage facility adjacent to the existing Central Waste Complex would not change the Industrial-Exclusive designation of the 200 Areas, as described in Section 3.3.1.1, and would not be likely to increase access restrictions to the area. Therefore, siting the mercury storage facility there would not contribute to cumulative impacts in the area of access to lands important to American Indians.

1-21 As described in Chapter 4, Sections 4.4.1 and 4.4.6, of this *Mercury Storage EIS*, construction and operation of a mercury storage facility within the developed 200-West Area of Hanford would have negligible impacts on land use and visual resources and no direct impacts on American Indian resources. See the previous responses to Comment Nos. 1-1 and 1-20.

1-22 DOE is unaware of any new culturally significant findings in the vicinity of the 200-West Area of Hanford that is the subject of this *Mercury Storage EIS*. As described in Chapter 4, Sections 4.4.1 and 4.4.6, construction and operation of a mercury storage facility within the developed 200-West Area of Hanford would have negligible impacts on land use and visual resources and no direct impacts on American Indian resources. Siting the mercury storage facility adjacent to the existing Central Waste Complex would not change the Industrial-Exclusive designation of the 200 Areas, as described in Section 3.3.1.1, and would not be likely to increase access restrictions to the area.

1-23 The availability of transportation routes could vary and may change significantly over a 40-year timeframe. Additionally, the origin of some sources of elemental mercury cannot be predetermined. See the response to Comment No. 1-3 for a detailed discussion of the potential for contamination of fish.

1-24 Surveys of the 200 Areas (Chatters and Cadoret 1990; Prendergast-Kennedy 2003) that were reviewed indicated that there are few cultural resources in the 200-West Area, as described in Chapter 3, Section 3.3.6, of this *Mercury Storage EIS*. The impacts analysis presented in Chapter 4, Section 4.4.6, determined that there would be no impact on cultural resources from construction or operation of a new storage building near the Central Waste Complex. Consultations that have been initiated concerning cultural resources are set forth in Chapter 5, Section 5.4. Although

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***Commentor No. 1 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee***

impacts are not expected, the text within Section 4.4.6 has been changed to indicate that if cultural resources are discovered during construction, appropriate guidance set forth in the *Hanford Cultural Resources Management Plan* (DOE 2003) would be implemented.

1-25 As stated in Chapter 4, Section 4.4.1, mercury storage operations would be compatible with DOE's Industrial-Exclusive land use designation for this area. In addition, as stated in Section 4.4.8, neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts. If DOE were to select the Hanford alternative, the mercury storage facility could remain open past the scheduled closure date for most of the facilities in the Central Plateau. Construction and operation of a mercury storage facility in the 200-West Area would not affect the Columbia River corridor.

1-26 According to Title 36 of the *Code of Federal Regulations*, Section 800.16(d), the area of potential effects (APE) is the geographic area or areas within which a proposed action may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the proposed action and may be different for different kinds of effects caused by the proposed action. Accordingly, the Hanford APE, or region of influence, for cultural resources is the project location and adjacent areas, as described in Chapter 3, Section 3.1, and Appendix B, Section B.7.2, of this *Mercury Storage EIS*. More specifically, it includes the project location adjacent to the Central Waste Complex within the 200-West Area, as well as the immediate area surrounding the project location that could potentially be disturbed by storage facility construction and operation. It also includes areas that are used by American Indians for religious and ceremonial purposes, such as Rattlesnake Mountain, Gable Mountain, and Gable Butte. Areas beyond this region of influence are not included in the APE.

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Commentor No. 2: Diana Wheeler

March 22, 2010

Dear Mr. David Levenstein and U. S. Department of Energy.

I understand the NIMBY mentality and I don't like it... so, I would prefer to pay more for my energy and NOT have dirty coal power plants allowed in this country. Barring that, I would like to make it difficult and expensive to store mercury (and nuclear waste) in the hopes that the "actual environmental costs" of waste disposal be properly felt by industries creating them -- and passed on to consumers as the true cost of the product.

Therefore, I am writing to state the I am against storing toxic mercury in Texas since I don't think the science shows it's 100% safe (groundwater issues alone seem to make this a questionable location). I think this is likely a case of "officials in Texas are generally pro-business and anti-environmental protection", and therefore the political climate is such that West Texas seems a likely dumping ground. I disagree.

Sincerely,

Diana Wheeler
2604 W 49th St.
Austin, TX 78731
dwheeler@aya.yale.edu

2-1

This *Mercury Storage EIS* addresses elemental mercury that is at least 99.5 percent pure that a holder decides to discard. Chapter 4, Section 4.9.4.2, discusses projected air emissions resulting from the construction and operation of a mercury storage facility. The cumulative effect of air emissions at WCS is discussed in Section 4.11.3.7.3; this section includes a reference to Section 4.11.3.1.3, where other sources of mercury emissions, including those from coal-fired power plants, are also considered in the cumulative impacts analysis.

2-2

Congress passed the Mercury Export Ban Act of 2008 (P.L. 110-414) and mandated that DOE create a storage facility (or facilities) for elemental mercury that a holder decides to discard, with the goal of minimizing the mercury that may be mismanaged and released into the environment, where it may harm human health or the environment. As described in Chapter 1, Section 1.6, Section 5 of the Act authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws; such costs shall not include costs associated with land acquisition or permitting. A fee structure has not been determined; however, it is expected that it would be competitive with the costs of other mercury storage options. The incentive for generators to send their mercury to the DOE facility is that DOE would take ownership of the mercury and indemnify the generator from future liability. The storage and disposal of other waste, including nuclear waste, are outside the scope of this EIS.

2-3

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS. As noted in Chapter 4, Section 4.9.3.2, construction and operation of an elemental mercury storage facility at the site would not impact groundwater.

2-3

Commentor No. 3: Ben Fuhriman

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Wednesday, January 27, 2010 1:52 AM

Regardless of what our governor says we her in Eastern Idaho would love to have the jobs that this mercury storage would create. The INL is a large part of our economy and it is silly to think that a facility built to handle nuclear waste wouldn't be capable of handling mercury. Furthermore, the Governor's worries of mercury seeping into the water supply is ridiculous. We have done many studies by placing dies in the soil to see where it comes out and it has never been seen. The mercury would stay in the facility and it would be safe. We trust our engineers at the INL and would love the opportunity to have this project in our state.

Ben Fuhriman concerned citizen.

Ben Fuhriman
 298 E 20th St
 Idaho Falls, ID 83404
 XXX-XXX-XXXX
 ben@sorvetteinc.com

- 3-1 DOE acknowledges the commentor's support for the long-term management and storage of elemental mercury at INL.
- 3-2 DOE acknowledges the commentor's opinions about mercury seeping into the water supply. DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414). The design, construction, and operation of the mercury storage facility(ies) would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface water or groundwater.

3-1
 3-2
 3-1
cont'd

Commentor No. 4: John Tanner

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Thursday, February 04, 2010 7:20 PM

I see no reason why a long term storage facility for mercury could not be located at the Idaho National Laboratory if that is DOE's choice. DOE should appropriate the funds for monitoring it on a continuing basis.

John Tanner
 2175 Tasman Ave.
 Idaho Falls, ID 83404
 XXX-XXX-XXXX
 pust@datawav.net

4-1
 4-2

4-1 DOE acknowledges the commentor's support for the long-term management and storage of elemental mercury at INL.

4-2 As described in Chapter 2, Section 2.3.2, of this *Mercury Storage EIS*, monitoring of the storage facility(ies) and regular inspections of mercury containers would be integral to safe and secure operation of the facility(ies). DOE notes the commentor's concerns about long-term funding for operation of the mercury storage facility. The U.S. Congress and the President are responsible for determining year-to-year funding priorities for Government programs. DOE spends funds in accordance with congressional intent. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations.

Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) specifically authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws.

Commentor No. 5: Charlotte Kucera
U.S. Fisheries and Wildlife, Austin Field Office

From: Levenstein, David [mailto:David.Levenstein@em.doe.gov]
Sent: Friday, February 12, 2010 10:21 AM
Subject: Comment on EIS

Voicemail message:

On page 3-142 of the Draft Mercury Storage EIS, there is a reference to the Sand Dune Lizard. Elsewhere in the DEIS this species is not mentioned. She checked with New Mexico office. This species is not an issue at WCS.

Charlotte Kucera
U.S. Fisheries and Wildlife
Austin Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758

5-1

5-1

The sand dune lizard is a candidate species for listing under the Endangered Species Act (16 U.S.C. 1531 et seq.). In an effort to be as conservative as possible when dealing with sensitive species, it remains listed as a species that could occur on site. Please note the distinction between the potential for occurrence on site—within the entire WCS property—versus the potential for occurrence within the two areas considered for constructing the mercury storage facility.

In addition, a request was made by the Texas Parks and Wildlife Department to leave the sand dune lizard on the list of species that could occur on site.

**Commentor No. 6: Mark Funkhouser, Mayor; Cathy Jolly, Councilwoman; John A. Sharp, Councilman
Office of the City Council, Kansas City, Missouri**



Office of the City Council

22nd Floor, City Hall
414 East 12th Street
Kansas City, Missouri 64106

(816) 513-1368
Fax: (816) 513-1612

February 11, 2010

David Levenstein, Document Manager
Office of Environmental Compliance (EM-41)
U.S. Department of Energy
Post Office Box 2612
Germantown, MD 20874

Re: *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement*

Dear Mr. Levenstein:

On behalf of the many residents of Kansas City who live in proximity to the U.S. Department of Energy (DOE) Bannister Road Kansas City Plant, we want to express our support for DOE's identification of the Waste Control Specialists' facility near Andrews, Texas as the Preferred Alternative in the agency's *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DEIS).

In response to DOE's identification of the Bannister Road Kansas City Plant in July, 2009 as one of seven locations under consideration for location of a long-term storage facility for elemental mercury, we had provided you a copy of City Council's Resolution No. 090587 that was adopted on July 9, 2009. That resolution expressed our strong and unanimous opposition to DOE's consideration of the Bannister Road Kansas City Plant for a long-term storage facility for elemental mercury, due to several reasons, including its proximity to residential populations and its incompatibility with future local land use plans for the area.

We note that DOE has acknowledged in the DEIS that the Bannister Road Kansas City Plant is one of two candidate sites where minority and/or low-income populations are present within a two-mile radius and a transportation accident at or near these two facilities could disproportionately impact low-income and/or minority individuals. This factor alone confirmed our prior assertion that the Bannister Road Kansas City Plant is an inappropriate location for consideration of a mercury storage facility.

In addition, as noted in the DEIS there are several factors that make the Waste Control Specialists' facility near Andrews, Texas the Preferred Alternative by DOE:

- the compatibility of mercury storage with existing waste management activities, land use plans, and regulatory agreements,
- the facility's remote location,
- the low population density in the surrounding area,
- the absence of nearby major bodies of surface water,
- the presence of an existing rail line near the facility, and
- environmental impacts at the facility that are otherwise similar to those at other candidate sites.

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DOE acknowledges the commentor's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury and opposition to the long-term management and storage of elemental mercury at KCP.

DOE acknowledges the possibility that traffic accidents could occur when transporting mercury to KCP. These accidents could take place close to residential areas. This statement is also true of any other hazardous materials that are transported along the roadways near KCP. As with all hazardous materials, the question for mercury is whether it can be transported responsibly so that it poses a low or negligible risk to people living along the transportation routes. The risk assessment presented in this *Mercury Storage EIS* is a good-faith effort to use what is known about the physics and chemistry of mercury, its toxicity, and the way it is transported to obtain a conservative estimate of that risk. Therefore, DOE stands by the conclusion that the risk to individual members of the public from transportation accidents at KCP would be negligible to low. This assertion is specifically supported by the analysis presented in Chapter 4, Section 4.7.9.3, of this EIS.

**Commentor No. 6 (cont'd): Mark Funkhouser, Mayor; Cathy Jolly, Councilwoman; John A. Sharp, Councilman
Office of the City Council, Kansas City, Missouri**

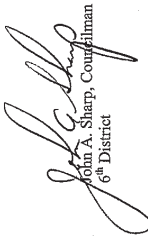
Therefore, we concur with DOE's identification of its Preferred Alternative in the DEIS. On February 11, 2010, the City Council of Kansas City, Missouri unanimously adopted Resolution No. 100107 in support of DOE's Preferred Alternative and we have attached a copy of that resolution for the official record.

DOE's consideration of the Bannister Road Kansas City Plant as a possible location of a storage facility for elemental mercury has caused considerable distress to many residents of neighborhoods located in proximity to the plant. Therefore, at the earliest possible date, we urge DOE to finalize its selection of the Waste Control Specialists' facility near Andrews, Texas in the Environmental Impact Statement and the Record of Decision for location of its long-term storage facility for elemental mercury.

Respectfully submitted,


Mark Funkhouser
Mayor


Cathy Jolly, Councilwoman
6th District-at-Large


John A. Sharp, Councilman
6th District

6-1
cont'd

6-3

DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

**Commentor No. 6 (cont'd): Mark Funkhouser, Mayor; Cathy Jolly, Councilwoman; John A. Sharp, Councilman
Office of the City Council, Kansas City, Missouri**

RESOLUTION NO. 100107

Expressing the City Council's support of the U.S. Department of Energy's identification of the Waste Control Specialists' facility near Andrews, Texas as the "Preferred Alternative" for a long-term storage facility for elemental mercury generated within the United States and directing the City Clerk to immediately transmit this Resolution to various legislative bodies and administrative entities.

WHEREAS, on July 2, 2009, the U.S. Department of Energy (DOE) published a Notice of Intent in the Federal Register regarding its plans to designate a facility or facilities for the long-term management and storage of elemental mercury, a toxic metal, generated within the United States; and

WHEREAS, the Federal Register notice identified the DOE's Bannister Road Kansas City Plant as one of seven locations under consideration for the long-term storage facility for more than 10,000 metric tons of elemental mercury; and

WHEREAS, the City Council unanimously adopted Resolution No. 090587 on July 9, 2009, expressing its strong opposition to DOE's consideration of the Bannister Road Kansas City Plant as a possible location for a long-term storage facility for elemental mercury; and

WHEREAS, on January 29, 2010, the DOE published a Notice of Availability of its *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DEIS) for public review and comment; and

WHEREAS, the DEIS identified the Waste Control Specialists' facility near Andrews, Texas as DOE's Preferred Alternative for locating its long-term management and storage facility for elemental mercury; and

WHEREAS, this determination by DOE was based upon several factors that made the Waste Control Specialists facility DOE's Preferred Alternative, including but not limited to:

- the compatibility of mercury storage with existing waste management activities, land use plans, and regulatory agreements,
- the facility's remote location,
- the low population density in the surrounding area,
- the absence of nearby major bodies of surface water,
- the presence of an existing rail line near the facility, and the environmental impacts at the facility that are otherwise similar to those at other candidate sites; and

WHEREAS, the DEIS noted that census data indicated the Bannister Road Kansas City and the Savannah River Site were the only candidate locations where minority and/or low-income populations are present within a two-mile radius and a

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**Commentor No. 6 (cont'd): Mark Funkhouser, Mayor; Cathy Jolly, Councilwoman; John A. Sharp, Councilman
Office of the City Council, Kansas City, Missouri**

RESOLUTION NO. 100107

transportation accident at or near these two facilities could disproportionately impact low-income and/or minority individuals; and

WHEREAS, DOE has indicated its intent to finalize the Environmental Impact Statement in Fall 2010 and publish a Record of Decision on its final selection of the location for its long-term storage facility for elemental mercury some time thereafter; and

WHEREAS, DOE will hold a public hearing in Kansas City on March 2, 2010, to receive comments from interested parties regarding the DEIS; NOW, THEREFORE,

BE IT RESOLVED BY THE COUNCIL OF KANSAS CITY:

Section 1. That the City Council strongly supports the DOE's identification of the Waste Control Specialists' facility near Andrews, Texas as the Preferred Alternative for a long-term storage facility for elemental mercury by the U.S. Department of Energy.

Section 2. That the City Council urges DOE to finalize the selection of the Waste Control Specialists' facility in the Environmental Impact Statement and the Record of Decision for its long-term storage facility for elemental mercury.

Section 3. That the City Manager shall immediately transmit this resolution to DOE, all members of the area Congressional delegation, the Governor of the State of Missouri, and the Director of the Missouri Department of Natural Resources.

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Authenticated as Passed

[Signature]
Mark Funkhouser, Mayor

[Signature]
Vickie Thompson

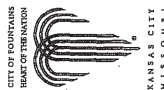
Vickie Thompson, City Clerk

FEB 11 2010

Date Passed

**Commentor No. 7: Troy M. Schulte, Interim City Manager; Dennis Murphey, Chief Environmental Officer
Office of the City Manager, Kansas City, Missouri**

Office of the City Manager



29th Floor, City Hall
414 E. 12th Street
Kansas City, Missouri 64106

(816) 513-1408
Fax: (816) 513-1363

February 16, 2010

David Levenstein, Document Manager
Office of Environmental Compliance (EM-41)
U.S. Department of Energy
Post Office Box 2612
Germantown, MD 20874

Re: *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement*

Dear Mr. Levenstein:

In response to the recent issuance of its *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DEIS) by the U.S. Department of Energy (DOE), we want to express our support for DOE's determination of the Waste Control Specialists' facility near Andrews, Texas as the Preferred Alternative.

On July 23, 2009, in response to DOE's identification of seven locations under consideration for location of a long-term storage facility for elemental mercury, we provided you a letter requesting immediate elimination of the Bannister Road Kansas City Plant in July 2009 as a candidate site. As noted in that letter, we believe the Bannister Road Kansas City Plant is an inappropriate location for an elemental mercury storage facility and its consideration is inconsistent with preliminary criteria identified in DOE's Notice of Intent to Prepare an Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury, published in the Federal Register/Vol. 74, No. 126 on Thursday, July 2, 2009.

With our letter of July 23, 2009 we also provided you a copy of Resolution No. 090587 that was adopted by the City Council of Kansas City, Missouri on July 9, 2009. That resolution expressed strong and unanimous opposition to DOE's consideration of the Bannister Road Kansas City Plant as the possible location of a long-term storage facility for elemental mercury, due to several reasons, including its proximity to residential populations and its incompatibility with future local land use plans for the area.

We note that DOE has acknowledged in the DEIS that the Bannister Road Kansas City Plant is one of two candidate sites where minority and/or low-income populations are present within a two-mile radius and a transportation accident at or near these two facilities could disproportionately impact low-income and/or minority individuals. This factor alone confirmed

7-1 DOE acknowledges the commentor's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury.

7-2 Comments received during the scoping meetings were considered in formulating the *Draft Mercury Storage EIS*. Chapter 1, Section 1.6, of the draft EIS addresses those comments as they relate to the selection of the seven candidate sites. DOE believes that KCP does meet the criteria set forth during the site selection process. See Section 1.5.1 of this *Final Mercury Storage EIS* for a discussion of the specific criteria used in selecting the candidate sites, including KCP.

7-3 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at KCP.

With respect to the proximity of the proposed elemental mercury storage facility to nearby populations and its incompatibility with future land use plans, as discussed in Chapter 4, Section 4.7.1, although no applicable land use plans, policies, or controls have been identified that would specifically restrict storage of elemental mercury, such storage might not be considered compatible with proposed redevelopment of the site, adjacent residential zoning, or the proximity of sensitive populations (at a hospital and schools) within 0.8 kilometers (0.5 miles) of the site.

7-4 DOE acknowledges the commentor's observations regarding the presence of minority and low-income populations in the vicinity of KCP. Chapter 4, Section 4.7.12, of this *Mercury Storage EIS* presents the analysis of potential environmental justice impacts at KCP, including the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations within the region of influence at KCP in the event of a transportation accident. As discussed in Section 4.7.9.3, transportation accidents are predicted to pose a negligible-to-low human health risk.

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7-4

**Commentor No. 7 (cont'd): Troy M. Schulte, Interim City Manager; Dennis Murphey, Chief Environmental Officer
Office of the City Manager, Kansas City, Missouri**

7-4
cont'd

The City's prior assertion that the Bammeister Road Kansas City Plant is an inappropriate location for consideration of a mercury storage facility.

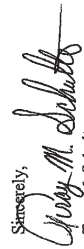
DOE has listed numerous factors in the DEIS that make the Waste Control Specialists' facility near Andrews, Texas the Preferred Alternative:

- The compatibility of mercury storage with existing waste management activities, land use plans, and regulatory agreements,
- The facility's remote location,
- The low population density in the surrounding area,
- The absence of nearby major bodies of surface water,
- The presence of an existing rail line near the facility, and
- Environmental impacts at the facility that are otherwise similar to those at other candidate sites.

Therefore, we concur with DOE's identification of its Preferred Alternative in the DEIS. On February 11, 2010, the City Council of Kansas City, Missouri unanimously adopted Resolution No. 100107 in support of DOE's Preferred Alternative and we have attached a copy of that resolution for your information and request that it be made a part of the official record.

The DEIS indicates an intended timeline to issue the final Environmental Impact Statement in Fall 2010 and publish the Record of Decision at some time thereafter. In order to put minds to rest among residents of our neighborhoods located in proximity to the Bammeister Road Kansas City Plant who are greatly concerned about this issue, at the earliest possible date we urge DOE to finalize its selection of the Waste Control Specialists' facility near Andrews, Texas in the Environmental Impact Statement and the Record of Decision for location of its long-term storage facility for elemental mercury.

Sincerely,



Troy M. Schulte
Interim City Manager



Dennis Murphey
Chief Environmental Officer

7-1
cont'd

7-5

DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

**Commentor No. 8: Bob Berkebile, Carol T. Adams, Co-Chairs
Environmental Management Commission of Kansas City Missouri**



Environmental Management Commission of Kansas City Missouri

February 17, 2010

Mr. David Levenstein
EIS Document Manager
P.O. Box 2612
Germantown, MD 20874

RE: Long-term Storage Facility for Elemental Mercury

Dear Mr. Levenstein:

In response to the U.S. Department of Energy's (DOE) plans to designate a facility or facilities for the long-term storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008, the Kansas City Missouri Environmental Management Commission supports the findings in the DEIS.

The Commission commends DOE for identifying water quality and flooding concerns and considering adverse environmental justice impacts that would have been associated with locating the facility at the Bannister Road Kansas City Plant.

Over the past two years, Mayor Funkhouser and the City Council have consistently adopted policies and ordinances to incorporate sustainability as a core principle in all City policies, programs and projects. A significant focus of these actions has been to make our neighborhoods vibrant, vital and healthy places to live. DOE is a valued partner in these efforts.

Sincerely,

Bob Berkebile
Bob Berkebile
Co-Chair, EMC

Carol T. Adams
Carol T. Adams
Co-Chair, EMC

8-1

DOE acknowledges the commentor's support for the findings presented in the *Draft Mercury Storage EIS*.

8-2

DOE appreciates the commentor's observations on this *Mercury Storage EIS*. Chapter 3, Section 3.6, of this EIS describes the existing environmental and socioeconomic conditions in the vicinity of KCP. Chapter 4, Section 4.7.3.1, of this EIS describes the potential impacts on surface water from siting a mercury storage facility at KCP, including flood protection considerations. Chapter 4, Section 4.7.12, of this EIS presents the analysis of potential environmental justice impacts, that is, the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations.

8-1

8-2

The Kansas City Environmental Management Commission was created to review plans, budgets, programs and actions of the City which substantially impact the City's environment, to provide for the preparation of plans addressing the long term environmental needs of the City, and to monitor the City's actions for compliance with environmental laws and regulations.

Commentor No. 9: Howard Timmons

to: Document Manager Office of Environmental Compliance (EM-41) Report of activity on the Website, Waste Control Specialists LLC. I found the following comment under, executive director response to comments, page 14 of 32 second paragraph.

the license would be a final agency action, there will be on-going interaction between the licensee and the agency after license issuance that is more involved than other TCEQ permitting. For example, state statute and rules require the compact waste disposal facility to be located on land owned by the state. The license requires that the licensee convey the land for the compact waste disposal facility to the state of Texas (LC.20), and the Executive Director has certified that upon license issuance the TCEQ will accept transfer of the land on behalf of the state of Texas. After the facility is closed, the license will be transferred to the TCEQ on behalf of the state of Texas, and the TCEQ will conduct institutional control of the closed compact waste disposal facility.

Be it known to any & all I am against any & all waste sites & permits, this one R07100 included as well. I don't need or want a waste dump site for radioactive waste it "depleted uranium, Thorium, mercury" or what have you.

Howard Timmons
701 South Lane
Brownfield TX
79316

9-1

9-1

DOE acknowledges the commentor's opposition to the disposal of mercury at any site. However, to clarify, the proposed action is the management and storage, not disposal, of elemental mercury. Although specific criteria have not been fully developed, they will require that the mercury be at least 99.5 percent pure and nonradioactive prior to its acceptance at a long-term mercury storage facility(ies) for storage.

**Commentor No. 10: Jim Harrison, Director, Intergovernmental Relations Division
Texas Commission on Environmental Quality**



Bryan W. Shaw, Ph.D., Chairman
Buddy Garcia, Commissioner
Carlos Rubenstein, Commissioner
Mark R. Vickery, P.G., Executive Director

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

February 23, 2010

Mr. David Levenstein
EIS Document Manager
U.S. Department of Energy
P.O. Box 2612
Germantown, MD 20874

Re: TCEQ Grant and Texas Review and Comment System (TRACS) #2010-121, Andrews County -
TX-1-20100210-0001-50

Dear Mr. Levenstein:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the above-referenced project and offers following comments:

A review of the project for General Conformity impact in accordance with 40 CFR Part 93 and Title 30, Texas Administrative Code § 101.30 indicates that the proposed action is located in Andrews County, which is currently unclassified or in attainment of the National Ambient Air Quality Standards for all six criteria air pollutants. Therefore, General Conformity does not apply.

Although any demolition, construction, rehabilitation or repair project will produce dust and particulate emissions, these actions should pose no significant impact upon air quality standards. Any minimal dust and particulate emissions should be easily controlled by the construction contractors using standard dust mitigation techniques.

We do not anticipate significant long term environmental impacts from this project as long as construction and waste disposal activities associated with it are completed in accordance with applicable local, state, and federal environmental permits and regulations. We recommend that the applicant take necessary steps to insure that best management practices are utilized to control runoff from construction sites to prevent detrimental impact to surface and ground water.

Thank you for the opportunity to review this project. If you have any questions, please call Ms. Tangela Niemann at (512) 239-3786.

Sincerely,

Jim Harrison, Director
Intergovernmental Relations Division

10-1

DOE acknowledges the commentor's statements regarding air pollutant emissions. Chapter 4, Section 4.9.4.2, of this *Mercury Storage EIS* describes the potential impacts on air quality from siting a mercury storage facility at WCS. Facility construction or modification and routine operations would have negligible to minor impacts on air quality, and air pollutant emissions are not expected to exceed air quality standards. Amounts of mercury vapor anticipated to be emitted during normal facility operations would have a negligible effect on workers and the public, with a negligible risk to human health. Mitigation measures are presented in Section 4.12 of this EIS.

10-2

DOE acknowledges the commentor's statements regarding adherence to regulatory requirements for the long-term management and storage of mercury at WCS and application of best management practices during construction and operations to safeguard surface water and groundwater. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. As described in Chapter 2, Section 2.3.2, and Chapter 4, Section 4.9.3.1, of this *Mercury Storage EIS*, best management practices, including adherence to an integrated contingency plan and spill prevention, control, and countermeasures plan for mercury storage, would be employed to prevent spills and releases. Best management practices that would be employed include the use of spill trays under mercury containers, spill containment features, and regular inspections. With regard to facility construction, best management practices for soil erosion and sediment control and spill prevention and waste management practices would be employed to minimize suspended sediment, the transport of other deleterious materials, and potential water quality impacts. Further, a National Pollutant Discharge Elimination System General Permit Notice of Intent would be filed to address stormwater discharges associated with construction activity, and a stormwater pollution prevention plan would be developed and implemented for the construction activity.

10-1

10-2

Commentor No. 11: Betty DuBose Hamilton

Hamilton #1 of 3

Suggested title: What is In Our Future?

What does west Texas have in common with the rest of the state and surrounding states?
 Answer: Possible PCB-, mercury-, and, eventually, radioactive-laced dust and raindrops.

We have some of the best soil in the nation for growing food. If we have enough water, our farmers can grow just about any fruit or vegetable or animal for food. Water is a concern, but now we have another problem to worry about.

Andrews, 70 miles south/southwest of Terry County has Waste Control Specialists, LLC, that is becoming a dumping ground of the nation. PCBs (carcinogen) from the Hudson River in New York are being hauled daily to the WCS landfill. GE, the company required to do the clean-up has acknowledged that the dredging and cleaning could be done on location, but it is cheaper to dry the dredged soil and ship it to Andrews.

It appears that the owners of Waste Control Specialists (Kent Hance, Harold Simmons, et al) are reaping millions in short-term profit while they may be contaminating the entire state for eternity. (Google "Waste control Specialists, Hance, Simmons" for details.)

Criteria for storing hazardous wastes include sparse population, no surface water, stable geology, and room for expansion. Yes, the Andrews area is sparsely populated as most of West Texas is, but when we have our annual sandstorms, our dust is scattered across the state and even into surrounding states. When we have occasional wet years we have flooding, thunderstorms with towering anvil clouds, and even tornadoes.

An acquaintance lives near Waco. In February 2007 he sent pictures of their backyard. Everything was covered with red sand. The Waco area has tight, black soil. My brother lives in Little Rock, Arkansas. At that same time he called to say that they woke up to red dust glued with dew to leaves, cars, everything. (The car-wash businesses loved it.) I have a picture of my husband scalping our yard the previous day wearing a RESPIRATOR MASK as the dust swirled around him in 40 to 60 mph winds (best time to scalp a lawn because the dried grass blows away).

Humans are not perfect. They make mistakes, and it seems that an occasional spill is inevitable. When that happens, and we have one of our south/southwest winds or stormy anvil clouds, that contamination may be lifted and spread across the entire state and even to surrounding states.

If approved, the nation's mercury wastes are scheduled to be warehoused in a metal building ABOVE GROUND at the WCS site.

We have a wonderful developing grape-growing and wine industry out here on the Llano Estacado. We have melons that are known for their sweetness and are in demand nationwide. We have peanuts and pecans, healthy additions to diets. We have dairies and beef and pork feed lots. What happens if dust and raindrops collect particles of hazardous wastes and distribute them over our crop lands? Even cotton can be hazardous since some chemicals can be absorbed through the skin.

11-1

DOE acknowledges the commentor's concerns regarding mercury storage at WCS, including concerns regarding severe weather. Severe weather was evaluated with respect to the proposed construction and operation of a mercury storage facility, as described in the meteorology sections of Chapters 3 and 4 of this *Mercury Storage EIS*. For WCS, Chapter 3, Section 3.8.3.1, of this EIS specifically describes the site flood hazard, while Section 3.8.4.1 summarizes the climate of the region and severe weather potential. Chapter 4, Section 4.9.3.1, of this EIS notes that the proposed mercury storage facility would be designed and constructed to avoid any drainage features that could be subject to flooding. Section 4.9.4.1 describes the potential impacts of meteorological conditions on the construction and operation of a mercury storage facility at WCS, including design considerations to safeguard the facility from severe weather events. The analysis of facility accidents conducted for this EIS also addresses the potential for accidental release of mercury resulting from high winds, tornadoes, floods, and lightning strikes, as presented in Appendix D, Section D.2.5. Please see Chapter 4, Sections 4.2.9.1.4 and 4.9.9.2, for the results of all accident analyses, including severe weather scenarios considered for the mercury storage facility at WCS.

11-1

11-2

This *Mercury Storage EIS* recognizes that spills can occur and identifies a number of scenarios; see Appendix D, Table D-17. This EIS also recognizes that mercury may become airborne and be transported downwind. The analysis attempts to provide perspective on this by estimating how often accident scenarios might occur (accident frequency) and how significant the consequences might be (e.g., the distances downwind to which airborne mercury clouds might travel before being diluted below levels such as EPA's Acute Exposure Guideline Levels). The final outcomes of these calculations are estimates of risk, such as those summarized in Table D-27.

11-2

11-3

DOE acknowledges the commentor's concerns regarding risks to croplands. In this *Mercury Storage EIS*, DOE considered both dry and wet deposition from plumes of mercury deposited on the ground and on water bodies, as summarized in Appendix D, Section D.1.1.2. Section D.1.1.2.6 quotes the EPA generic soil screening level as being 23 milligrams per kilogram. In the discussion of uncertainty in soil screening levels in Section D.1.1.2.6, there is a calculation that shows that this level is never exceeded in any of the accidental releases considered in this EIS. In addition, in Volume IV of EPA's *Mercury Study Report to Congress (An Assessment of Exposure to Mercury in the United States)*, the Executive

11-3

Commentor No. II (cont'd): Betty DuBose Hamilton

Hamilton # 2 of 3

All of that is worrisome, but I haven't even mentioned the Ogallala formation that lies beneath the WCS storage area. Yes, the water in that southernmost part of the Ogallala Aquifer may be playing out because of pumping to the north, but the *formation* – the porous rocky layers that allow water to flow underground – is still there. We should also consider the instability of the geological formations as evidenced by sudden appearance of large sink holes (Wink, Denver City).

Hearings are scheduled March 8, 2010, at Eunice, New Mexico, and March 9, 2010, at Andrews, TX. Both begin at 5:30 pm.

Written comments can be mailed to David Levenstein, Document Manager, Office of Environmental Compliance (EM-41), U.S. Department of Energy, P. O. Box 2612, Germantown, MD 20874. Toll free: 877-274-5462. [Http://www.mercury-storageeis.com](http://www.mercury-storageeis.com).

Source: *Long-Term Management and Storage of Elemental Mercury: Environmental Impact Statement*. "Summary and Guide for Stakeholders, January 2010." DOE/EIS-04230.

Betty DuBose Hamilton
911 East Oak Street
Brownfield, Texas 79316



II-4

Summary and the conclusions are almost entirely devoted to exposure via the fish ingestion pathway, suggesting that EPA considers fish consumption a much more viable exposure pathway. In this EIS, calculations were performed that estimated the distances downwind to which bodies of water might be contaminated to such an extent that methylmercury would accumulate in fish tissue to levels that would be hazardous to human health, if consumed. This was done for the national average fish consumption rate and for subsistence fishermen consuming at the average and 95th percentile rates. DOE believes that, by doing this, it has bounded the extent of possible hazards to human health from deposition of mercury, including on foodstuffs.

II-4

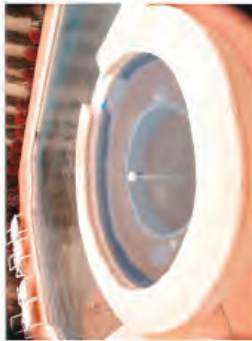
DOE acknowledges the commentor's concerns regarding the location of the Ogallala Aquifer and the stability of the geologic strata in the vicinity of WCS. Chapter 3, Section 3.8.2.1, of this *Mercury Storage EIS* describes the geologic strata that compose the High Plains Aquifer (also known as the Ogallala Aquifer) in the vicinity of the site. These include the unconsolidated sediments of the Ogallala, Antlers, and Gatuna Formations, which are informally called the OAG unit. Section 3.8.3.2 describes regional and local groundwater conditions, including the occurrence of the High Plains Aquifer. As noted by the commentor, the "dry line," or southernmost extent of groundwater saturation in the OAG unit, has been mapped to the north and east of the current WCS facilities. A review of geologic mapping, as summarized in Section 3.8.2.1, shows that an underlying bedrock feature (known as the red bed ridge) serves to deflect upward, thin, and locally "pinch out" the OAG unit in the immediate vicinity of the WCS facilities. Nonetheless, construction and routine operation of a mercury storage facility are not expected to have any impact on groundwater beneath WCS, as described in Chapter 4, Sections 4.9.3.1 and 4.9.3.2. The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility.

Commentor No. 11 (cont'd): Betty DuBose Hamilton

Hamilton # 3 of 3



Feb 2007, Scalloping lawn in 40 to 60 mph winds, wearing a RESPIRATOR MASK. Brownfield, TX, about 70 miles northeast of Andrews, TX.



Next day, Feb 2007, a backyard filled with red sand between Waco and McGregor, TX. Their soil is tight, BLACK soil.



Haboob coming from southwest, looming over Lake Ransford, near Lubbock, TX, in 2009. Lubbock is about 100 miles northeast of Andrews, TX.

With regard to site geologic stability, Chapter 3, Section 3.8.2.3, summarizes the geologic hazards in the vicinity of WCS, including the presence of regional subsidence features attributable to salt dissolution at depth in the Permian Basin. However, no subsidence features related to salt dissolution have been identified within the WCS facilities area or in the vicinity of the WCS property; the closest such recognized features are located about 24 to 32 kilometers (15 to 20 miles) from WCS. A site survey and geotechnical study would be conducted to confirm site geologic characteristics for facility siting and engineering purposes, as noted in Chapter 4, Section 4.9.2.1, of this EIS.

Commentor No. 12: Lois Vance

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Wednesday, February 24, 2010 9:39 AM

Please do not use the Grand Junction Colorado site for mercury storage. Please honor past commitments to use this site for uranium only. The area of the site has become more populated in the last few years and therefore is not as isolated as before.

Lois Vance
 733 East 9th St.
 Delta, CO 81416
 XXX-XXX-XXXX
 lois_comstock2000@yahoo.com

12-1
 12-2

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at GJDS. As noted in Chapter 1, Section 1.7.1, DOE and Mesa County entered into a Memorandum of Understanding (MOU) in 1996 to provide meaningful consultation with and participation of the county in DOE's use of GJDS (DOE and Mesa County 1996). Mesa County believes the agreement is clear and that GJDS is only to be used for uranium mill tailings, almost exclusively of local origin, and that DOE assured the citizens of the county that the disposal site would never be used to store any other wastes. DOE acknowledges that the MOU stipulates that DOE must consult with Mesa County regarding decisions related to operations at the site. DOE will evaluate the applicability of the 1996 MOU to the long-term management and storage of elemental mercury at GJDS to determine whether the 1996 MOU would affect the viability of the selection of this site as the location for a mercury storage facility.

12-2

DOE acknowledges the commentor's statement regarding the population in the vicinity of GJDS. Chapter 3, Section 3.2.10, of this *Mercury Storage EIS* describes the existing socioeconomic conditions in the GJDS region, including population. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Commentor No. 13: Christina Pacosz

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Tuesday, March 02, 2010 9:33 AM

Mercury contamination is already a fact in Missouri rivers and streams – and elsewhere too – so that there are warnings about not eating the fish caught in these waters. Bringing more mercury here is a very bad idea. Leakage will occur over time. That is just an inevitability of physics.

Christina Pacosz
 4238 Charlotte
 Kansas City, Missouri 64110
 XXX-XXX-XXXX
 pacosz@earthlink.net

13-1

13-1

DOE acknowledges the commentor's concerns regarding mercury contamination of fish and streams. As described in Chapter 1 of this *Mercury Storage EIS*, Congress anticipated that by passing the Mercury Export Ban Act of 2008 (P.L. 110-414) and, in doing so, directing DOE to designate a facility (or facilities) for the long-term management and storage of mercury, the amount of mercury available worldwide would be reduced, thus reducing the associated health and environmental risks. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Act; and (3) comply with applicable Federal, state, and local laws and regulations. As described in Chapter 2, Section 2.3.2, and Chapter 4, Section 4.3.3.1, of this EIS, best management practices, including adherence to an integrated contingency plan and spill prevention, control, and countermeasures plan for mercury storage, would be employed at all candidate sites to prevent spills and releases. Best management practices that would be employed include the use of spill trays under mercury containers, spill containment features, and regular inspections. Further, in accordance with Section 5 of the Act, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). DOE has a long history of safely handling mercury in 3-liter (34.6-kilogram [76-pound]) flasks over many decades.

Commentor No. 14: Victoria Day

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Saturday, March 06, 2010 11:19 PM

Not in my state. Perhaps there's space for such a storage facility in Washington D.C. NOT IN MISSOURI.

Victoria Day
 5604 Cambridge Avenue
 Kansas City, MO 64129

|| 14-1

14-1 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at KCP. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

**Commentor No. 15: Senator Michael F. Bennet,
Senator Mark Udall, Congressman John Salazar**

140-2010-005626

Congress of the United States
Washington, DC 20515

February 23, 2010

The Honorable Steven Chu
1000 Independence Avenue, SW
Washington, DC 20585-0001

Dear Secretary Chu,

Thank you for the Department of Energy's (DOE) 10/1/2009 correspondence responding to our concerns regarding consideration of the Grand Junction Disposal Site as a location for the storage of elemental mercury. We were pleased to see the DOE's *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (EIS) recognize that a 1996 Memorandum of Understanding (MOU) requires DOE to provide meaningful consultation with, and participation of, Mesa County in decisions on DOE's potential use of the Grand Junction Disposal Site. We were also pleased to see that DOE's draft EIS chose the site in Andrews, Texas, not Grand Junction, as the Agency's preferred alternative for mercury storage.

As outlined in the EIS, Mesa County firmly believes that the 1996 MOU governs any potential DOE use of the Grand Junction Facility. Pursuant to that MOU, Mesa County argues that the Grand Junction Disposal Site is only to be used for uranium mill tailings. Furthermore, DOE assured Mesa County that the disposal site would never be used to store any waste other than uranium mill tailings.

As discussed in our 9/23/09 letter to you, there has been overwhelming opposition to the proposal for storing elemental mercury in Mesa County. Governor Bill Ritter, the Colorado Department of Public Health and Environment, the Mesa County Commissioners and countless business and community leaders are opposed to the proposal due to concerns over public health risks, water quality and the transportation of this toxic material. For the aforementioned reasons, and to represent the sentiments of our constituents, we also stand opposed to the proposal.

As the Grand Junction Disposal Site is still among the alternatives contemplated in the draft EIS, and as a public comment period on the EIS is currently open, please consider this letter as our official comments against the proposal to store elemental mercury at the Grand Junction Disposal Site pursuant to the Mercury Export Ban Act of 2008.

Thank you for your consideration and continued attention to this matter.

Sincerely,



U.S. Senator Michael F. Bennet

U.S. Senator Mark Udall

U.S. Congressman John Salazar

PRINTED ON RECYCLED PAPER

15-1

DOE acknowledges the commentor's statement regarding the Memorandum of Understanding (MOU) between DOE and Mesa County concerning GJDS (DOE and Mesa County 1996). As stated in Chapter 1, Section 1.7.1, DOE acknowledges that the MOU stipulates that DOE must consult with Mesa County regarding decisions related to operations at the site. DOE will evaluate the applicability of the 1996 MOU to the long-term management and storage of elemental mercury at GJDS to determine whether the 1996 MOU would affect the viability of the selection of this site as the location for a mercury storage facility.

15-2

DOE acknowledges the senators' and representative's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury and their opposition to the long-term management and storage of elemental mercury at GJDS.

15-1

15-2

15-1
cont'd

15-2
cont'd

This *Mercury Storage EIS* was prepared in accordance with NEPA, as amended (42 U.S.C. 4321 et seq.), the Council on Environmental Quality's NEPA implementing regulations (40 CFR 1500-1508), and DOE's NEPA implementing procedures (10 CFR 1021) to evaluate the range of reasonable alternatives for managing and storing elemental mercury. As described in the appropriate sections of Chapter 4 and summarized in Chapter 2, Section 2.7, of this *Mercury Storage EIS*, construction and operation of a mercury storage facility(ies) are expected to have little or no environmental, socioeconomic, and cultural resources impacts. As described in the human health risks sections in Chapter 4 and Appendix D, human health risk from normal operation of the facility and transportation would be negligible. The impacts from mercury storage have been determined to be negligible to low at all candidate sites analyzed in the draft EIS. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Commentor No. 16: Sonia Santana

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Friday, March 12, 2010 12:21 PM

Do not make Texas the national dumping ground for toxic mercury. Individual states that generate this waste should store it in their states. Our state is already leading in pollution problems please don't compound our pollution an endanger our children's health more.

Sonia Santana
 2005 Barton Parkway
 Austin, TX 78704
 XXX-XXX-XXXX
 sonia.santana@gmail.com

|| 16-1
 || 16-2
 || 16-3

16-1 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS. However, to clarify, the proposed action is the management and storage, not disposal, of elemental mercury.

16-2 DOE acknowledges the commentor's statement that elemental mercury should be stored in the generating states. Note that the Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored within the generating states. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

16-3 This *Mercury Storage EIS* conservatively shows that, during routine operations, airborne concentrations of mercury immediately outside a proposed new facility(ies) would be less than about 20 nanograms per cubic meter. This is more than an order of magnitude less than EPA's chronic inhalation exposure reference concentration of 300 nanograms per cubic meter. Concentrations below this level are considered negligible. In practice, the long-term average concentration at any offsite location where people might be living would be considerably less than 20 nanograms per cubic meter, for several reasons: (1) the wind does not blow in one direction all the time; (2) the mercury would be diluted still further as it travels away from the building toward offsite locations; and (3) the concentrations predicted in this EIS are for unfavorable weather conditions that occur only a fraction of the time (i.e., ones that tend to maximize predictions of concentrations adjacent to the building, when the windspeed is low). Similar reasoning applies to sites where existing buildings would be used, rather than a new building.

Appendix D, Section D.4.1.2, of this EIS reports on measurements of the airborne concentration of mercury downwind of the mercury storage building at DOE's Y-12 in Oak Ridge, Tennessee. Since 1986, these have averaged 3.6 nanograms per cubic meter. This level of mercury is that expected downwind from a well-managed mercury storage facility on any of the sites under consideration by DOE. Further, this average measurement shows that the concentrations predicted in this EIS are indeed conservative and that the storage facility can be managed to keep nearby ambient levels of mercury as much as two orders of magnitude below EPA's reference concentration.

**Commentor No. 17: Curt Fransen, Deputy Director
State of Idaho, Department of Environmental Quality**



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hillon • Boise, Idaho 83706 • (208) 393-6602

C.L. "Buck" Oiler, Governor
Tom Harada, Director

February 24, 2010

David Levenstein, Document Manager
Office of Environmental Compliance (EM-41)
U.S. Department of Energy
P. O. Box 2612
Germanstown, MD 20875

Re: Draft Long-Term Management and Storage of Elemental Mercury
Environmental Impact Statement

Dear Mr. Levenstein:

The Idaho Department of Environmental Quality (IDEQ) appreciates the opportunity to submit comments on the Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (Draft Mercury EIS). IDEQ recognizes the thorough and responsive efforts of the Department of Energy (DOE) in preparing the Draft Mercury EIS. IDEQ supports the preferred alternative proposed by DOE to store mercury at the Waste Control Specialists (WCS) facility in Andrews, Texas.

Over the past two decades, DOE has made tremendous progress in the safe, environmental cleanup of legacy wastes at the INL pursuant to the 1991 Federal Facilities Agreement/Consent Order, the 1995 Agreement between Idaho, DOE and the Department of the Navy, the Site Treatment Plan and other requirements and initiatives of DOE. This progress is consistent with and crucial to the support of INL's mission to "[e]nsure the nation's energy security with safe, competitive, and sustainable energy systems and unique national and homeland security capabilities." The selection of INL as a storage site for additional waste materials would be contradictory to DOE's cleanup progress and INL's critical mission. Idaho remains vigilant in protecting the Snake River Aquifer, a federally designated sole source of drinking water for over 200,000 people that flows beneath the INL. IDEQ's previous comments regarding the unsuitability of INL for long term mercury storage are incorporated herein as attached.

The Texas WCS facility, on the other hand, is a commercial operation specifically designed to receive and store various hazardous wastes. In that regard the WCS has been well characterized, studied and permitted for waste management activities. As the Draft Mercury EIS notes, mercury storage at the WCS facility is compatible with its existing waste management activities, land use plans, and regulatory agreements with the State of Texas. In addition, the WCS facility is supportive of its selection as a national mercury storage site.

17-1

DOE acknowledges the commentor's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury.

17-2

As stated in Chapter 4, Section 4.6.8, of this *Mercury Storage EIS*, DOE continues to manage several ongoing programs and projects at INL in support of sitewide remediation. The proposed action and the existing cleanup missions are independent programs; thus, actions related to one would not impact the other. Cleanup activities at INL continue to be a high priority for DOE. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts. As noted in Sections 4.6.3.1 and 4.6.3.2, facility construction or modification and operations are not expected to have any impact on groundwater beneath Idaho Nuclear Technology and Engineering Center or Radioactive Waste Management Center. Because a storage facility(ies) would be operated in such a way as to prevent any spills from reaching the ground, there would be no impact on groundwater from routine operations. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility(ies). Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility(ies).

17-1

17-2

**Commentor No. 17 (cont'd): Curt Fransen, Deputy Director
State of Idaho, Department of Environmental Quality**


David Levenstein
February 24, 2010
Page 2

DOE's evaluation of relevant environmental factors in the Draft Mercury EIS clearly supports selection of the WCS facility for long term mercury storage. The WCS site is not prone to natural disasters, has no perennial streams or wetlands, and the ground water beneath the site is not used for drinking water. Mercury storage at the WCS facility will not create conflicts with existing DOE missions; population density near the site is low; the facility is immediately available for mercury storage and can be expanded if necessary; the facility has existing RCRA permits; the facility location does not include known Native American resources; the facility includes existing supporting infrastructure and is accessible to a major transportation route, including a rail line; and, sufficient information exists to characterize the site. In summary, the ECS facility meets the criteria DOE is required to utilize in assessing and selecting a suitable location for mercury storage.

The Draft Mercury EIS fully supports DOE's proposed selection of the WCS facility for long term storage of mercury.

Thank you for consideration of these comments.

Sincerely,



Curt Fransen
Deputy Director

cc: David Hensley – Counsel to the Governor
Toni Hardesty – Director, DEQ

Attachment

The attachment referenced is a letter dated August 11, 2009, that was previously submitted to DOE and included comments on the scope of the Mercury Storage EIS. These comments were considered by DOE, as discussed in Appendix I of this EIS, and thus are not reproduced again in this CRD. The letter is included in the administrative record.

17-1
cont'd

Response side of this page intentionally left blank.

**Commentor No. 18: George Newman, Chair
Pitkin County Board of County Commissioners**



530 E. Main Street • Aspen, Colorado 81611-1948

David Levenstein, Document Manager
Office of Environmental Compliance (EM-41)
U.S. Department of Energy
Post Office Box 2612
Germantown, MD
20874

March 9, 2010

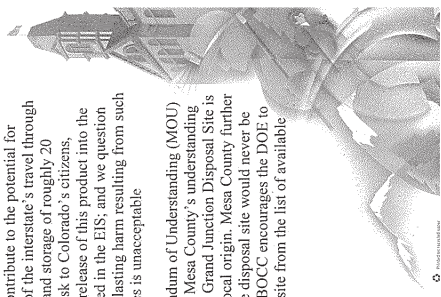
RE: *Long-Term Management and Storage of Elemental Mercury* Environmental Impact Statement

Dear Mr. Levenstein,

On behalf of our constituents, the Pitkin County Board of County Commissioners (BOCC) oppose the Office of Legacy Management's consideration of the Grand Junction Disposal Site in Western Colorado, to permanently store thousands of tons of toxic mercury waste. The proposal would require shipment of elemental mercury from various sites around the country through Colorado's rural and urban areas and along vital water sources like the Colorado River. The Central Rocky Mountains contain the headwaters for the Platte, Arkansas, Colorado and Rio Grande Rivers. The U.S. Forest Service indicates that water from these headwaters "flows to over 33 million people in more than 13 states," supporting a multitude of ecosystems, providing drinking water and support for recreation and agricultural based economies.

Traveling through mountainous areas and along the Colorado River in Colorado, carrying a rough daily traffic count of 13,740 vehicles, Interstate 70 is subject to many natural hazards, including avalanche, debris flow and rockfalls. These hazards contribute to the potential for accidents above and beyond those already incurred as the result of the interstate's travel through Colorado's narrow and steep mountains and canyons. Shipment and storage of roughly 20 million pounds of mercury within Colorado poses a significant risk to Colorado's citizens, visitors and the environment. A spill or fire while in transit, or a release of this product into the environment are serious concerns that are not adequately mitigated in the EIS; and we question the ability to ever adequately mitigate for such occurrences. The lasting harm resulting from such an accident to Colorado families, businesses and natural resources is unacceptable.

The Summary and Guide for Stakeholders references a Memorandum of Understanding (MOU) from 1996 between Mesa County and the DOE that declares it is Mesa County's understanding of the MOU that "...the agreement [MOU] is clear and that [the] Grand Junction Disposal Site is only to be used for uranium mill tailings, almost exclusively of local origin. Mesa County further asserts that the DOE assured the citizens of Mesa County that the disposal site would never be used to store any wastes other than mill tailings." Pitkin County BOCC encourages the DOE to honor this agreement as a primary reason to remove this storage site from the list of available options for long-term storage of elemental mercury.



18-1

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at GJDS.

18-2

The likelihood of spills into water bodies is discussed qualitatively in Appendix D, Section D.2.8, of this *Mercury Storage EIS*, where it is conservatively concluded that the frequency of such events anywhere along a transportation route is moderate for truck transportation and low for railcar transportation. The potential for spillage into the Colorado River and other Colorado waterways is explicitly recognized in that section.

This possibility is further discussed in Chapter 4, Section 4.3.9.3.2, of this EIS. DOE recognizes that the route to GJDS contains the greatest distance of any route where there is potential for spillage into a river to occur. The overall conclusion is that a direct spillage of mercury into a body of water could be of concern if it is not cleaned up, but there is generally adequate time for such cleanup. Hence, the consequences to humans could be managed so that they are negligible or low. Given this assumption and the fact that the frequency of crashes with spills on any of the transportation routes is no more than moderate (and this is an upper bound on the frequency of spills directly into water), the risk would be negligible or low for all transportation routes. However, DOE recognizes that there is a large degree of uncertainty regarding this conclusion in the case of spillage into fast-flowing rivers. Therefore, the observation that risk would be negligible or low for all transportation routes should be tempered by noting that the uncertainty regarding this prediction of risk is very large, as discussed in Appendix D, Section D.6.1.2.

18-3

DOE acknowledges the commentor's statement regarding the 1996 Memorandum of Understanding (MOU) between DOE and Mesa County concerning GJDS (DOE and Mesa County 1996). As noted in Chapter 1, Section 1.7.1, DOE acknowledges that the MOU stipulates that DOE must consult with Mesa County regarding decisions related to operations at the site. DOE will evaluate the applicability of the 1996 MOU to the long-term management and storage of elemental mercury at GJDS to determine whether the 1996 MOU would affect the viability of the selection of this site as the location for a mercury storage facility.

18-1

18-2

18-3

Administration
Suite 301
(970) 926-5200
fax 926-5196

County Commissioners
Suite 301
(970) 926-5200
fax 926-5196

County Attorney
Suite 302
(970) 926-5196
fax 926-5196

Finance and Use Tax
Suite 201
(970) 926-5220
fax 926-5230

**Commentor No. 18 (cont'd): George Newman, Chair
Pitkin County Board of County Commissioners**

The risks posed by this plan are simply too great. For these reasons we are joining with Colorado Governor Bill Ritter and other concerned Colorado citizens and communities to oppose any shipment of elemental mercury waste to the DOE disposal facility for storage on Colorado's Western Slope. This dangerous and harmful material should be stored close to the point of origin rather than being transported thousands of miles for permanent burial in Colorado.

Thank you in advance for removing Colorado's Grand Junction Disposal Site from consideration for the long-term management and storage of elemental mercury.

Sincerely,
PITKIN COUNTY BOARD OF COUNTY COMMISSIONERS



George Newman, Chair

18-1
cont'd

18-4

18-4

DOE acknowledges the commentor's statement that elemental mercury should be stored close to the point of generation. Note that the Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored close to its point of origin. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

To clarify, elemental mercury would be stored in an aboveground, enclosed facility(ies); it would not be buried.

**Commentor No. 19: Ted Sturdevant, Director
State of Washington, Department of Ecology**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
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March 10, 2010

Mr. David Levenstein
EIS Document Manager
U.S. Department of Energy
P.O. Box 2612
Germantown, MD 20874

RE: Mercury Storage Draft Environmental Impact Statement

Dear Mr. Levenstein:

Thank you for the opportunity to comment on the U.S. Department of Energy's (USDOE's) draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (DEIS). We appreciate that the USDOE is holding public hearings to provide information and gather public comments on the draft EIS.

The Washington State Department of Ecology (Ecology) commented in a letter dated August 20, 2009, from Jay Manning on the proposed EIS at the scoping stage. A summary of the comments from the letter includes:

- The nation needs a safe place to store elemental mercury. Washington State has long supported the development of a national repository for mercury storage.
- Washington State has been active in the collection of mercury to protect citizens and the environment, over 14,000 pounds to date.
- Our first priority is effective cleanup of the current contamination at Hanford. We would oppose any effort that would divert resources from Hanford cleanup.
- Ecology believes the costs of siting and oversight should be shared nationally and not fall solely on the host state.

In reviewing the draft EIS, Ecology has the following comments:

- 1) Ecology supports the USDOE's preferred alternative of siting the repository at the Waste Control Specialists Facility in Texas. We agree that the Texas site is a better choice than Hanford for the reasons cited in the EIS:
 - Compatibility with existing waste management activities, land use plans, and regulatory agreements;
 - Remote location;

19-1

19-2

19-1 Costs are not presented in this *Mercury Storage EIS*. The question of financial responsibility for the cost of oversight of the mercury storage facility(ies) is outside the scope of this EIS.

19-2 DOE acknowledges the commentor's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury and opposition to the long-term management and storage of elemental mercury at Hanford. As described in the appropriate sections of Chapter 4 and summarized in Chapter 2, Section 2.7, of this *Mercury Storage EIS*, construction and operation of a mercury storage facility(ies) are expected to have little or no environmental, socioeconomic, and cultural resources impacts. As described in the human health risks sections in Chapter 4 and Appendix D, human health risk from normal operation of the facility and transportation would be negligible. The impacts from mercury storage have been determined to be negligible to low at all candidate sites analyzed in the draft EIS. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

**Commentor No. 19 (cont'd): Ted Sturdevant, Director
State of Washington, Department of Ecology**

Mr. David Levenstein
March 10, 2010
Page 2

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| <p>2) Ecology does not believe that the draft EIS fully characterizes the impacts of siting a repository at Hanford. Since Hanford has not been chosen as the preferred alternative, Ecology will not provide further input at this point. Should another repository site become necessary, Washington strongly believes that further evaluation of Hanford, and potentially the other sites, will be necessary for a complete and accurate analysis.</p> <ul style="list-style-type: none"> • Low population density in surrounding area; • No nearby major bodies of surface water and; • Existing rail line. <p>3) Hanford's focus needs to remain on cleanup until completion, which is anticipated to take decades. Ecology believes that if Hanford is ever considered as an alternative for a repository, environmental assessment of any impact to cleanup would need to occur.</p> <p>4) Integration of an environmental justice analysis in the draft EIS should document any "disproportionately high and adverse human health or environmental effects" in the impacted area.</p> <p>5) Ecology requests information be included regarding what alternatives will be used if the preferred alternative site is not completed or permitted on time.</p> <p>6) The United States Environmental Protection Agency (EPA) is the lead in the development of a national strategy for the lifecycle management of all mercury, including compounds. Exportation bans on some mercury compounds may trigger additional storage capacity needs. Without EPA's mercury compound research and capacity assessment, the USDOE draft EIS is incomplete. We believe that another EIS process would be necessary to accommodate any additional national mercury storage.</p> <p>7) Each site considered has to meet state-specific pre-application and application processes and requirements. They should be incorporated and discussed in the draft EIS in a clear manner. This addition will clarify the significant practical advantage of the preferred alternative.</p> <p>8) All but two of the alternative facilities have existing Resource Conservation Recovery Act (RCRA)-permitted operations. The draft EIS should discuss RCRA compliance history of the existing operations. Poor compliance history should be considered as a potential risk for a site in the EIS evaluation.</p> <p>9) The draft EIS should address the risk of a fire more comprehensively. A large building fire could lead to very significant human exposure and long-term environmental impact.</p> <p>10) Although the containers are fairly resistant to breakage and spillage, accidents and natural disasters can cause spills which affect groundwater. Potential groundwater impacts should be assessed and described.</p> | <p>19-3</p> <hr style="border: 1px solid black;"/> <p>19-4</p> <hr style="border: 1px solid black;"/> <p>19-5</p> <hr style="border: 1px solid black;"/> <p>19-6</p> <hr style="border: 1px solid black;"/> <p>19-7</p> <hr style="border: 1px solid black;"/> <p>19-8</p> <hr style="border: 1px solid black;"/> <p>19-9</p> <hr style="border: 1px solid black;"/> <p>19-10</p> <hr style="border: 1px solid black;"/> <p>19-11</p> | <p>DOE acknowledges the commentor's statements regarding the adequacy of this <i>Mercury Storage EIS</i>. This EIS was prepared in accordance with NEPA, as amended (42 U.S.C. 4321 et seq.), the Council on Environmental Quality's NEPA implementing regulations (40 CFR 1500-1508), and DOE's NEPA implementing procedures (10 CFR 1021) to evaluate the reasonable alternatives for managing and storing elemental mercury. As described in the appropriate sections of Chapter 4 and summarized in Chapter 2, Section 2.7, of this EIS, construction and operation of a mercury storage facility(ies) are expected to have little or no environmental, socioeconomic, and cultural resources impacts. As described in the human health risks sections in Chapter 4 and Appendix D, human health risk from normal operations of the facility and transportation would be negligible to low.</p> <p>As stated in Chapter 4, Section 4.4.8, DOE continues to manage several ongoing programs and projects at Hanford in support of sitewide remediation. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.</p> <p>DOE is committed to fully considering all environmental justice concerns in its NEPA analyses and decisionmaking processes. The "Environmental Justice" sections in Chapter 3 of this <i>Mercury Storage EIS</i> describe the existing distribution of minority and low-income populations within 16 kilometers (10 miles) and 3.2 kilometers (2 miles) of the candidate sites. The "Environmental Justice" sections in Chapter 4 include an analysis of potential environmental justice impacts. Specifically, with regard to Hanford, Chapter 4, Section 4.4.12, presents the analysis of potential environmental justice impacts, that is, the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations. As stated in the section, no disproportionately high and adverse effects on minority or low-income populations are expected.</p> <p>If operation of the DOE mercury storage facility(ies) is delayed beyond the January 1, 2013, date mandated in the Mercury Export Ban Act of 2008 (P.L. 110-414), mercury could continue to be safely stored at existing storage locations and generating facilities until the DOE storage facility(ies) is ready. However, if DOE decides to select WCS as the mercury storage site, an existing WCS building with an existing RCRA permit could be used to store mercury while</p> |
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**Commentor No. 19 (cont'd): Ted Sturdevant, Director
State of Washington, Department of Ecology**

Mr. David Levenstein
March 10, 2010
Page 3

11) We encourage you to incorporate how you used the information submitted by states to the USDOE during the mercury repository interim guidance review. We believe such an approach would make the EIS more effective.

We appreciate your willingness to answer our questions and provide us additional information. If you wish to discuss our comments, please contact Maria Victoria Peeler at maria.peeler@ecw.wa.gov / (360) 407-6704. Thank you again for the opportunity to comment on this important national issue.

Sincerely,



Ted Sturdevant,
Director

cc. Jane Hedges, Nuclear Waste Program Manager, Department of Ecology
Maria Victoria Peeler, Environmental Specialist, Department of Ecology
Keith Phillips, Executive Policy Advisor, Office of the Governor
K Seiler, Hazardous Waste and Toxics Reduction Program Manager, Department of Ecology

a new building is being permitted and constructed. If the location selected in the ROD for this *Mercury Storage EIS* were to become unavailable, another candidate site could be selected in a revised ROD. Based on preliminary site evaluation criteria and the analyses of potential impacts in Chapters 2 and 4 of this EIS, DOE believes that any of the candidate sites considered are suitable for the long-term storage of elemental mercury. Impacts were found to be minimal at all sites; minor differences are shown in the "Summary and Guide for Stakeholders," Table 3.

19-7

As described in Chapter 1, Section 1.3.1, in October 2009, EPA reported information on sources, amounts, and uses of mercury compounds, along with other information, to Congress for consideration in deciding whether to extend the ban on export of elemental mercury to include mercury compounds. If mercury compounds are added to the export ban, DOE would undertake additional environmental review as necessary.

19-8

The DOE mercury storage facility(ies) must, under the Mercury Export Ban Act of 2008 (P.L. 110-414), be RCRA permitted and regulated. Therefore, the facility(ies) would be required to go through the Federal (EPA) or state permitting processes for hazardous waste facilities. Chapter 5, Section 5.3, of this *Mercury Storage EIS* describes the environmental permits and notifications that are applicable to a long-term mercury storage facility(ies). Section 5 of the Act would allow a DOE facility to operate under "interim status" while waiting for approval of an RCRA permit application, as long as it is in existence on or before January 1, 2013.

19-9

DOE acknowledges the commentor's statement regarding the need to discuss each candidate mercury storage site's history of RCRA compliance. In addition to RCRA, the facilities being considered in this EIS operate under a wide range of Federal and state requirements, as well as DOE Orders. Due to the varied nature of the sites under consideration, the different regulatory schemes under which they operate, and differences between existing site operations and the proposed elemental mercury storage facility(ies), a fair comparison of the sites' compliance histories would be difficult.

For those interested in compliance history, information is available through the EPA Enforcement and Compliance History Online (ECHO) database (<http://www.epa.gov/oecaerth/data/systems/multimedia/echo.html>). In addition, information for DOE sites is summarized in annual site environmental reports (<http://www.em.doe.gov/Pages/asers.aspx>).

**Commentor No. 19 (cont'd): Ted Sturdevant, Director
State of Washington, Department of Ecology**

19-10

Appendix D, Sections D.2.4.5 and D.2.4.6, discuss the potential for fires in the mercury storage building. These sections conclude that the predicted frequency of fires that lead to a release of mercury from the storage building is in the Frequency Level I (negligible) range and that the associated risks are therefore negligible. Several factors contribute to this conclusion: (1) forklifts would be electric, so they would not provide a source of fuel for a fire; (2) there would be no fuel lines or fuel storage vessels inside the mercury storage building; (3) there would be no flammable materials in the construction of the building; (4) administrative controls would limit the amount of flammable material kept in the building; (5) the wooden pallets that contain the mercury flasks would be treated with fire-retardant coatings; and (6) there would be a fire suppression system in place.

19-11

DOE acknowledges the commentor's concerns regarding the risk to groundwater from the long-term management and storage of elemental mercury. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. As described in Chapter 2, Section 2.3.2, and Chapter 4, Section 4.3.3.1, of this *Mercury Storage EIS*, best management practices, including the use of spill trays under mercury containers, spill containment features, and regular inspections, would be employed at all candidate sites to prevent spills and releases. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility(ies). Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility(ies). Also, in accordance with Section 5 of the Act, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies).

19-12

DOE considered and incorporated, where appropriate, comments received from the states on the *Interim Guidance* (DOE 2009a) prior to the release of the final version on November 13, 2009. This *Mercury Storage EIS* and the associated analyses are consistent with the *Final Interim Guidance* and considered state comments received on that document.

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**Commentor No. 20: Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**



Nez Perce

TRIBAL EXECUTIVE COMMITTEE

P.O. BOX 305 • LAPWAI, IDAHO 83540 • (208) 845-2253

March 11, 2010

Mr. David Levenstein
EIS Document Manager
US Department of Energy
P.O. Box 2612
Germantown, Maryland 20874

Re: Nez Perce Tribe comments on the (Draft) Long-term Management and Storage of Elemental Mercury, EIS

Dear Mr. Levenstein:

The Nez Perce Tribe (Tribe) would like to thank you for the opportunity to comment on the (Draft) Long-term Management and Storage of Elemental Mercury, EIS. The protection of cultural and natural resources at Hanford is of great concern to the Nez Perce Tribe as future decisions may have an impact on the Tribe's reserved Treaty resource areas.

The Tribe supports the selection of the WCS of Andrews, Texas, as the preferred alternative; and commends you for selecting a site compatible with existing waste management activities and choosing one far from major surface water sources. Also, the Tribe would like for you to consider two NEPA process issues and one specific EIS comment described below.

Government to Government Consultation
President Obama's memo, dated November 5, 2009, directed DOE to develop an action plan to comply and improve DOE's American Indian Tribal Government Policy. The Nez Perce Tribe submitted a letter to Secretary Steven Chu dated December 28, 2009 that provides comments for DOE to consider in developing their plan. The points emphasized in the letter would benefit your tribal consultation throughout the rest of this NEPA process, especially the need for early involvement. Early involvement would better ensure DOE trust responsibilities are met by allowing tribal perspectives to be part of the decision-making. The values expressed by the Tribe are important to consider in the NEPA process when activities like scoping, alternatives development and impacts analysis could affect Indian Country at Hanford.

20-1

DOE acknowledges the commentor's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury.

20-2

DOE remains committed to fulfilling its responsibilities regarding government-to-government consultations with potentially affected American Indian tribal governments. To that end, DOE initiated informal and formal consultations with potentially affected tribes to ensure collaboration in establishing a mercury storage facility(ies) as Congress directed. As shown in Chapters 2 and 4 and Appendix D of this *Final Mercury Storage EIS*, no adverse impacts on American Indians are expected from the proposed action at any of the sites considered. DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

20-1

20-2

**Commentor No. 20 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

Tribal perspective of the human and natural environment. Recently, the DOE-EM provided an opportunity for Tribal involvement in the GTCC EIS, where Tribes participated in the development of Chapter 3 Affected Environment. The Tribe drafted our perspectives of the human and natural environment at Hanford for inclusion. DOE is now including our narrative and considering our values to aid in deciding a preferred alternative. Though the Tribe did not have this similar opportunity in the Mercury Programmatic EIS, attached is copy of our GTCC narrative for your review consideration (see Attachment B).

Specific comment on Mercury EIS:

Groundwater/ Waste Management Sections

The Tribe has placed a priority on protection of the Columbia River and the impacts from waste and its effect on groundwater. Therefore, it would be important to understand how the construction and management of a proposed mercury storage facility at a 22-acre site at the Hanford 200 West area would be integrated with ongoing monitoring and/or cleanup strategies of tritium, nitrate and carbon tetrachloride plumes under the site. Neither the Hanford Groundwater nor Waste Management sections in Chapters 3 nor 4 adequately describe these existing plumes, their monitoring, or cleanup strategies. Without describing the integration of these ongoing efforts with the proposed Mercury Facility, it is difficult to conclude "there are no impacts" to groundwater. It would be prudent to consider if the proposed facility site at Hanford may cause cumulative impacts to ongoing monitoring and cleanup activities

In conclusion, the Tribe thanks you for the opportunity to comment on the (Draft) Long-term Management and Storage of Elemental Mercury, EIS. Please contact the Tribe's Environmental Restoration and Waste Management Division (ERWM) with any questions regarding this letter. The ERWM is directed by Gabriel Bohnee and he may be reached at (208) 843-7375 ext. 3746, or gabebb@nezperce.org.

Sincerely,

Samuel N. Penney

Samuel N. Penney
Chairman

Two attachments were included with this comment document: (1) a letter dated December 28, 2009, that comprised comments on the development of an action plan associated with DOE's American Indian Tribal Government Policy and (2) suggested language for the Draft Environmental Impact Statement for the Disposal of Greater-Than-Class C Low-Level Radioactive Waste. Neither of these attachments provides direct comments on the Mercury Storage EIS; thus, they have not been reproduced in this CRD. These documents are included in the administrative record.

20-3

DOE thanks the Nez Perce for submitting the tribe's perspective on the human and natural environment at Hanford; it has been incorporated by reference into Chapter 3 of this *Final Mercury Storage EIS*. DOE's inclusion of tribal views and perspectives in this EIS does not represent DOE's agreement with or endorsement of such views. Rather, DOE respects the unique and special relationship between American Indian tribal governments and the Government of the United States, as established by treaty, statute, legal precedent, and the U.S. Constitution. For this reason, DOE included tribal views and perspectives in this EIS to ensure full and fair consideration of tribal rights and concerns before making decisions or implementing programs that could affect tribes.

20-3

20-4

DOE acknowledges the commentor's concerns regarding groundwater contamination at Hanford and the completeness of the groundwater analyses presented in this *Mercury Storage EIS*. Protection of the environment, cleanup of pollution, and protection of public health and safety are of paramount importance to DOE. Existing groundwater conditions and the potential impacts on groundwater from construction and operation of a new mercury storage facility(ies) are analyzed in a manner commensurate with their importance and the expected level of impact on them—the sliding-scale assessment approach. This is consistent with DOE guidance contained in its *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements* (DOE 2004), in which DOE expands on Council on Environmental Quality instructions for preparing EISs (40 CFR 1502.2) by stating that impacts should be discussed in proportion to their significance and specifically recommending the use of the sliding scale for impact identification and quantification.

20-4

The impacts assessment was prepared in accordance with the methodology described in Appendix B, Section B.4, of this EIS. Chapter 3, Section 3.3.3.2, of this EIS summarizes existing groundwater conditions, including contamination, across Hanford, focusing on the 200 Areas, and Chapter 4, Section 4.4.3, addresses the impacts of facility construction and routine operations on surface water and groundwater hydrology and existing contaminant plumes. As noted in Section 4.4.3.2, construction activities are not expected to affect groundwater or existing contamination due to the depth to groundwater and the shallow depth of excavation. The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental

**Commentor No. 20 (cont'd): Samuel N. Penney, Chairman
Nez Perce Tribal Executive Committee**

mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as referenced in Section 4.4.3.1. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1, of this EIS. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, or equivalent plans as mandated by state requirements for RCRA-permitted facilities, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. DOE does not expect construction and operation of a new mercury storage facility in the 200-West Area of Hanford to affect resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts, as noted in Section 4.4.8. Thus, no cumulative impacts on cleanup activities are expected.

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Commentor No. 21: B. Ludlow

**Long-Term Management and Storage
of Elemental Mercury Environmental Impact Statement
(Mercury Storage EIS)**

Comment Form

Name B. Ludlow Date: 3/2/10
 Organization _____
 Address 11617 McKinley
 City, State, Zip Code KC MO 64134
 E-mail _____

Your comments on the Draft Mercury Storage EIS

Over 700 dangerous chemicals have already been identified on-site. One DOE rep. just told me he didn't know" if mercury was on the list. Why add one more that must be removed? This is already a Super Fund cleanup and plans are to sell the property and reuse it.

21-1

21-1

Waste generation and management at KCP are addressed in Chapter 3, Section 3.6.8.1, of this *Mercury Storage EIS*. KCP currently manages mercury alloy for use in plant operations.

As noted in Chapter 4, Section 4.7.8, DOE and the U.S. General Services Administration continue to investigate and remediate soil and groundwater contamination at several sites across the Bannister Federal Complex. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.

PLEASE RETURN THIS FORM TO THE REGISTRATION DESK OR SUBMIT BY MARCH 30, 2010 TO:
 U.S. Mail: David Levenson, EIS Document Manager, U.S. Department of Energy, P.O. Box 2612, Germantown, MD 20874
 Toll-Free Fax: 1-877-274-5462
 E-mail: <https://www.mercurystorageeis.com>



Commentor No. 22: Ann Suellentrop

Long-Term Management and Storage
of Elemental Mercury Environmental Impact Statement
(Mercury Storage EIS)

Comment Form

Name: Ann Suellentrop Date: 3/2/10
 Organization: Physicians for Social Responsibility - KS
 Address: 1865 South Pule St.
 City, State, Zip Code: Kansas City, Kansas 66103
 E-mail: annsuellentrop@gmail.com

Your comments on the Draft Mercury Storage EIS I am opposed to siting mercury at KCP
 The KCP plant site is already contaminated to perpetuity
 The DOE should be about cleaning the site up, not just
 pumping & treating the contamination. The KCP plant is
 in residential neighborhood on a flood plain, and near
 two rivers. The most vulnerable people nearby, women of
 child-bearing age and children are not being taken into account
 in exposure to contamination standards. The standards are
 currently based on a "standard man" - a young white male in his 20's
 approximately.

22-1

22-2

22-1

22-2

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at KCP. As noted in Chapter 4, Section 4.7.8, DOE and the U.S. General Services Administration continue to investigate and remediate soil and groundwater contamination at several sites across the Bannister Federal Complex. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts. However, a detailed discussion of the current waste treatment methods employed at the site is not within the scope of this *Mercury Storage EIS*.

DOE acknowledges the commentor's concerns about the location of KCP and the presence of vulnerable populations. Chapter 2, Section 2.2, of this *Mercury Storage EIS* summarizes the conceptual design of a new mercury storage facility. The design, construction or modification, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as referenced in Chapter 4, Section 4.7.3.1, of this EIS.

The standards used in this EIS take into account vulnerable members of the population. For example, this EIS uses EPA's Acute Exposure Guideline Levels (AEGLs). The definition of AEGL-1, for example, is the airborne concentration above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptotic nonsensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure. Similarly, this EIS uses EPA's reference concentration of 300 nanograms per cubic meter for chronic exposures, defined in EPA (2002) as "an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure estimate to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime."

PLEASE RETURN THIS FORM TO THE REGISTRATION DESK OR SUBMIT BY MARCH 30, 2010 TO:
 U.S. Mail: David Levinstein, EIS Document Manager, U.S. Department of Energy, P.O. Box 2812, Germantown, MD 20874
 Toll-Free Fax: 1-877-274-5462
 E-mail: <http://www.mercurystorageeis.com>



Commentor No. 23: Forest Phelps



Comment Form

Name Forest Phelps Date: 3-2-10
 Organization _____
 Address 211 E 80th Tenn
 City, State, Zip Code HAUNTS CITY, MO 64114
 E-mail _____

Your comments on the Draft Mercury Storage EIS

I like & like from the proposed
Mercury Storage Facility how much
would my taxes like decline and
would I be compensated for it?

23-1

23-1

DOE acknowledges the commentor's concerns regarding the effect that a DOE mercury storage facility(ies) could have on property values in a community and whether a homeowner would be entitled to compensation. DOE performed a qualitative assessment of the potential impact of facility siting on real estate property values, which is presented in Appendix B, Section B.10.2, of this EIS. As discussed in the analysis, a primary factor in determining the impact on property values from a facility is the perceived risk to human health imposed on residents of a property in close proximity to that facility. As presented in the "Occupational and Public Health and Safety" sections of Chapter 4, operation of a mercury storage facility would result in negligible risk to human health due to the design and safety parameters put in place.

PLEASE RETURN THIS FORM TO THE REGISTRATION DESK OR SUBMIT BY MARCH 30, 2010 TO:
 U.S. Mail: David Levensich, EIS Document Manager, U.S. Department of Energy, P.O. Box 2612, Germantown, MD 20874
 Toll-Free Fax: 1-877-274-5462
 E-mail: <http://www.mercurystorageeis.com>



Commentor No. 24: Eileen Trainor

March 24, 2010

Dear Mr. David Levenstein and U.S. Department of Energy.

I would like to comment on the Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement, the Mercury Storage EIS, DOE/EIS-0423D.

I am afraid that the EIS does not mention the High Plains (Ogallala) aquifer, which runs beneath the area under consideration for mercury storage. One of the world's largest aquifers, it covers an area of approximately 174,000 mi.² in portions of eight states (South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico and Texas). About 27 percent of the irrigated land in the United States overlies this aquifer system, which yields about 30 percent of the nation's ground water used for irrigation. In addition, the aquifer system provides drinking water to over 80 percent of the people who live within the aquifer boundary.

Another area of concern are the playayas, which are closed-basin wetlands and zones of recharge to the High Plains aquifer and critical habitat for birds and other wildlife in the otherwise semiarid, shortgrass prairie and agricultural landscape. You may read about the playayas in the USGS circular here: <http://pubs.usgs.gov/circ/1333/>

If the Ogallala Aquifer is polluted by mercury, it would be a natural disaster on the order of Love Canal or Three Mile Island. No one wants to think about natural or man-made disasters that might occur, but a train derailment or hail storm could cause an ecological disaster.

Rather than storing mercury in one area, I believe it should be stored in the states that benefit from the activities that release the mercury. The Texas/New Mexico border may look like a wasteland, but it is a vital area for wildlife and human life.

Thank you for your consideration and responses.

Eileen Trainor
503 Picasso Drive
San Marcos, TX 78666
Et02@rocketmail.com

24-1

Chapter 3, Section 3.8.2.1, of this *Mercury Storage EIS* describes the geologic strata that compose the High Plains Aquifer (also known as the Ogallala Aquifer) in the vicinity of the site. These include the unconsolidated sediments of the Ogallala, Antlers, and Gatuna Formations, which are informally called the OAG unit. Section 3.8.3.2 describes regional and local groundwater conditions, including the occurrence of the High Plains Aquifer. Construction and routine operations of a mercury storage facility are not expected to have any impact on groundwater beneath WCS, as described in Chapter 4, Sections 4.9.3.1 and 4.9.3.2. The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility.

24-2

As noted in Chapter 3, Section 3.8.3.1, a few established playa basins are present within a 10-kilometer (6.2-mile) radius of WCS. The largest of the surface depressions within the area is a playa located approximately 2.4 kilometers (1.5 miles) north-northeast of the WCS facility complex. However, the complex is not located within the drainage basin of this playa. Other features outside WCS include a number of small depressions (playas) between Baker Spring to the west and the facility. Also, see response to Comment No. 24-1.

24-3

DOE acknowledges the commentor's concerns regarding the risk to the High Plains Aquifer (Ogallala Aquifer) from a transportation accident. As presented in Appendix D of this *Mercury Storage EIS*, DOE has fully considered the parameters and pathways that would come into play should elemental mercury be spilled inside a mercury storage facility, onto the ground, or directly into a surface-water body from a transportation accident and the resulting threat to groundwater. In part because elemental mercury is slow to infiltrate through soil and sediments due to its physical and chemical properties, DOE determined that the most problematic spill would be one that is directly into a surface-water body, as described in Appendix D.

24-1

24-2

24-3

24-4

Commentor No. 24 (cont'd): Eileen Trainor

Section D.2.8. The possibility of spillage directly into a Texas river or waterway is further discussed in Chapter 4, Section 4.9.3.2, of this EIS. As further evaluated in Section D.4.3.2, the overall conclusion is that a direct spillage of mercury into a body of water could be of concern if it is not cleaned up, but there is generally adequate time for such cleanup. This contention is stronger for a release to the ground surface that could threaten underlying groundwater, where mercury would generally pool on the surface and infiltrate to a depth dictated by the surface tension of the pool of mercury. On a smooth surface, without fractures or cracks, this depth (capillary depth) is 0.36 centimeters (0.14 inches), as presented in Section D.4.2.3, with the spill of the entire contents of a 1-metric-ton (1.1-ton) container producing a pool with an area of no more than 20.6 square meters (222 square feet). While the natural variability of land surfaces would affect these spill pool characteristics, it is clear that a pool of mercury from a transportation accident could be contained and cleaned up before reaching groundwater. Transportation of mercury would be in accordance with applicable RCRA hazardous waste and U.S. Department of Transportation hazardous material shipping requirements. Appendix C, Section C.1, provides a brief description of the shipping modes and containers that would be used to transport mercury from the existing storage and generation sites to the new DOE storage facility(ies). Also, please see DOE's response to Comment No. 24-1 with regard to facility operations and contingency planning.

24-4

DOE acknowledges the commentor's statement that elemental mercury should be stored in the generating states. Note that the Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored within the generating states. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

DOE recognizes that areas that are sparsely populated can be of vital importance to wildlife and the people that reside there. Thus, this EIS evaluates ecological resources (see Chapter 3, Section 3.8.5, and Chapter 4, Section 4.9.5), socioeconomics (see Sections 3.8.10 and 4.9.11), and environmental justice (see Sections 3.8.11 and 4.9.12).

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Commentor No. 25: Niki Widmayer

From: comment@mercurystorageis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Monday, March 29, 2010 11:18 AM

Mr. David Levenstein
 EIS Document Manager
 U.S. Department of Energy
 Draft Mercury Storage EIS Comments
 P.O. Box 2612
 Germantown Maryland 20874

Dear Mr. Levenstein:

I was at the hearing in Andrews in August and I have reviewed the 798 page EIS. As a citizen of Midland for over 32 years and as a certified paralegal I am extremely depressed to think this beloved community will be facing more and more no-win choices in our future simply because the rest of the country doesn't think there is anybody out here or more pointedly anybody who gives a damn or who can't be bought off. That being said I add my support to well written comments and criticisms. I hope you receive many such letters of concern.

I express some of my many concerns about the proposed Preferred Alternative of WCS. I support PL 110-414 and hope safe methods can be found to eliminate mercury from our economy and mercury contamination from our bodies and our environment. We are already exposed to far too much mercury in the air we breathe and fish we eat mainly from excessive pollution released from coal and cement plants.

I support the principles of minimizing movements of hazardous materials such as mercury around the country and support the use of multiple storage sites for this and other safety reasons. I support the use of above ground continuously monitored storage rather than outdated leaky burial methods. I encourage continued research to find better ways to inactivate mercury and render it safer to handle, store and potentially dispose of.

I understand after careful review that none of the proposed sites is ideal. I also understand the attraction of WCS because the area around this location has a very low population density. Unlike other sites the feeling is that people are very unquestioning. Not me, I have questioned this all along. I question:

25-1

25-1 Thank you for your comments. DOE will consider all comments received from members of the public during the comment period on the draft EIS in preparing this final EIS.

25-2

25-2 DOE acknowledges the commentor's support for the Mercury Export Ban Act of 2008 (P.L. 110-414) and the desire to eliminate mercury from our economy and environment. This *Mercury Storage EIS* has been prepared in response to Section 5 of the Act, which directs DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States.

25-3

25-3 DOE acknowledges the commentor's statement that elemental mercury should be stored where it is generated. The Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored at or near the source of generation, thereby reducing its movement around the country. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

25-2

As discussed in Chapter 2, Section 2.2, the proposed storage facility would be an aboveground structure and would incorporate numerous safety features, including monitoring, to protect personnel and the environment.

25-3

As stated in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Evaluation of potential treatment and disposal methods is beyond the scope of this *Mercury Storage EIS*.

Commentor No. 25 (cont'd): Niki Widmayer

1. This site is far from any of the current locations of mercury requiring 1.8 million miles of truck travel exceeded only by Hawthorne and Hanford. Only Hanford exceeds WCS and Hawthorne's estimated 395,000 miles of rail transport. The accident estimates for this transportation by rail or truck are therefore among the highest.
2. Within a radius of 100 kilometers (62 miles) of WCS a total of 9 earthquakes larger than magnitude 2.5 have been recorded since 1973. The largest had a magnitude of 5 and occurred in 1992. So we could expect another ten or dozen such events in the 40 years of planned operation. The stacks of mercury containers need to be able to withstand such movement. I don't see where this is addressed.
3. The EIS states the following with regard to water: Water liters per year 24,721,000 current usage 49,740,311 capacity. The primary source of potable water for WCS is via pipeline from Eunice, New Mexico, WCS uses water from its central well for fire water and dust suppression. Production from the central well is at a rate of 95,114 liters (2,530 gallons) or 5,060 million liters (1,316 million gallons) per year. I do not see any analysis of what this continued and expanding draw on ground water will do to the area over time. In particular I see no study of how the future of Eunice community and potable well water supplies will be affected by this development.
4. I find the discussion of groundwater at the site very interesting. There are clearly described areas of high water content close to the surface. I believe these are in strong contradiction to the WCS position that the 80 feet deep LLRW trenches are at no risk of water infiltration. I strongly urge a new thorough and independent study of groundwater characteristics in the WCS site prior to its further consideration for mercury.
5. Severe weather events in the area include flash floods, high winds, dust storms, tornadoes, hail. During a 42-year period of record Andrews County reported 21 tornadoes. The EIS describes a fully enclosed weather-protected building which unlike several other sites would have to be constructed at WCS. There is no indication that the metal building pictured in the EIS would withstand a tornado. How likely is it that the people of Eunice would be pelted with flying mercury canisters in the event of a tornado? How likely is it these would leak?

- 25-4 As noted in Chapter 2, Table 2-2, the mileage associated with truck and rail transportation to WCS, as well as the human health risks for both truck and rail transport, would be the third highest of the seven alternative mercury storage sites. A full analysis of accidents is presented in Chapter 4, Section 4.9.9.3, and Appendix D, Section D.2.7.
- 25-5 DOE acknowledges the commentor's concerns regarding earthquakes in the vicinity of WCS and the risk to stored elemental mercury. Chapter 2, Table 2-4, shows that WCS has one of the lower measures of seismic risk among the seven candidate locations. In addition to evaluating the historical seismicity of each site, the analysis included using the latest probabilistic earthquake ground motion data from the U.S. Geological Survey to specifically compare the candidate sites. Appendix B, Table B-4, presents a general comparison of the earthquake measures used in this *Mercury Storage EIS*.
- 25-6 Chapter 3, Section 3.8.2.3, of this EIS describes geologic hazards in the WCS region, including historical seismicity (i.e., frequency and location of earthquakes). As noted by the commentor, the 1992 "Rattlesnake Canyon earthquake" produced Modified Mercalli Intensity V shaking at its epicenter location. As shown in Appendix B, Table B-4, such an earthquake is considered light in terms of shaking effects. Chapter 4, Section 4.9.9.2, specifically assesses the effects earthquakes could have on a mercury storage facility at WCS and concludes that the risk is minimal. This conclusion is based on the predicted peak ground acceleration of 0.12 g (force of acceleration relative to that of Earth's gravity) at the site from an earthquake with an annual probability of occurrence of 1 in 2,500. Ground motion in this range could cause slight damage to ordinary structures, but is not expected to affect modern structures that have been designed and constructed to withstand the assessed hazard.
- 25-7 Nevertheless, the facility accidents analysis specifically evaluated earthquake-induced spills of flasks or 1-metric-ton (1.1-ton) containers, as shown in Chapter 4, Table 4-3, for all candidate sites and described in Section 4.9.9.2 specifically for WCS. Appendix D, Section D.2.5.2, describes the methodology used for evaluating earthquake-induced spills and conservatively assumed beyond-design-basis earthquake conditions. Section D.2.2 describes the conditions under which the mercury containers would be stored. The pallets of 3-liter (34.6-kilogram [76-pound]) flasks would stand in a metal spill tray capable of holding the contents
- 25-8

Commentor No. 25 (cont'd): Niki Widmayer

<p>6. 4.9.5.3, Threatened and Endangered Species, states. No threatened or endangered species are known or are expected to exist within the area of the proposed mercury storage facilities at WCS. Thus, no impacts on threatened or endangered species are expected. However, 3.8.5.4 states, "nine federally and or state-listed threatened endangered and candidate species have been identified as occurring or possibly occurring on WCS." I do not find any explanation for this discrepancy. Clearly no actions should take place at WCS that will further threaten these species.</p>	<p>25-9</p>	<p>of 10 percent of the flasks in the pallet. They could then be placed onto seismically rated storage racks and stacked either two or three high. The 1-metric-ton (1.1-ton) containers would be stored on spill trays on the floor of the facility.</p>
<p>7. I do not see any cost analysis in the site evaluations. Where is the cost benefit study to help understand what will be spent to do this mercury project?</p>	<p>25-10</p>	<p>The values cited by the commentor reflect the existing usage and site water supply capacity for WCS, as described in Chapter 3, Section 3.8.7, of this <i>Mercury Storage EIS</i>. Chapter 4, Section 4.9.7.2, addresses the water demands for construction and operation of a mercury storage facility at WCS. Construction activities would increase site water use by about 5 percent for 6 months, and operations would increase water use by about 0.4 percent annually. As discussed in Section 4.11.1, water usage for a mercury storage facility is projected to have a negligible contribution to cumulative impacts on water resources, and thus, would have a negligible impact on the future supply of potable water in Eunice, New Mexico.</p>
<p>8. Most seriously the Cumulative Impacts provides no study of the risks of storing not only mercury at WCS but storing it in close proximity to toxic radioactive waste and other commercial hazardous waste. The Lenexa Kansas site was eliminated for this very consideration, "Due to concerns about permitting and operating an underground facility for long-term storage of mercury and concerns about mercury storage being incompatible with storage of other materials, DOE has eliminated this option." Surely the possibility of incompatibility of mercury storage with these other hazardous materials should at least be considered and studied.</p>	<p>25-11</p>	<p>DOE acknowledges the commentor's concerns regarding the depth to groundwater at WCS. Chapter 3, Section 3.8.3.2, of this <i>Mercury Storage EIS</i> summarizes existing groundwater conditions at WCS, based on relevant information obtained and reviewed by DOE. Chapter 4, Section 4.4.3, addresses the impacts of facility construction and routine operations on surface-water and groundwater hydrology and existing contaminant plumes. As described in Section 4.9.3.2, construction of a mercury storage facility at WCS is not expected to affect groundwater due to the depth to groundwater and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). No mercury would be stored below ground level. A geotechnical study would be conducted to confirm site geologic characteristics for facility siting and engineering purposes, as noted in Section 4.9.2.1 of this EIS. This would include determination of the depth to groundwater beneath the mercury storage facility. As discussed in Section 4.11.1, the operation of a mercury storage facility is projected to have a negligible contribution to cumulative impacts on groundwater resources.</p>
<p>9. 4.10 describes closure. This entire project is planned to last only a few 4 decades. Then the problem will remain unless new technology to safely inactivate elemental mercury arises. All the millions of miles of transport the hundreds of millions of dollars the construction etc. May well be duplicated again in sending the stuff off to yet another storage sites.</p>	<p>25-12</p>	<p>A long-term mercury storage facility(ies) would be built in accordance with local building codes, and design factors to mitigate potential impacts from wind loads would be considered. Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site. Tornadoes of severity F1 and F0 (using the Fujita or "F" scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D-6, the predicted annual strike rate for an F2 or more-severe tornado at WCS is less than 1 in a million.</p>
<p>I oppose the WCS site for the reasons mentioned among others. It is illogical I think to spend so much money to construct a facility so far from all the mercury to store it there for 40 years to then shut it down.</p>	<p>25-13</p>	<p>A long-term mercury storage facility(ies) would be built in accordance with local building codes, and design factors to mitigate potential impacts from wind loads would be considered. Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site. Tornadoes of severity F1 and F0 (using the Fujita or "F" scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D-6, the predicted annual strike rate for an F2 or more-severe tornado at WCS is less than 1 in a million.</p>
<p>The safety questions of the site have not been answered adequately. The water usage has not been adequately addressed. The potential witches brew of elemental mercury, LLRW, and commercial hazardous waste has not even been mentioned.</p>	<p>25-14</p>	<p>A long-term mercury storage facility(ies) would be built in accordance with local building codes, and design factors to mitigate potential impacts from wind loads would be considered. Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site. Tornadoes of severity F1 and F0 (using the Fujita or "F" scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D-6, the predicted annual strike rate for an F2 or more-severe tornado at WCS is less than 1 in a million.</p>

Commentor No. 25 (cont'd): Niki Widmayer

I strongly urge you to adopt the No Action Alternative. You give minimal consideration to this. It merits your serious attention. You do not seriously evaluate the risks and costs and benefits of widely dispersed storage. Smaller sites would have smaller amounts to spill. Transportation costs and risks would be largely eliminated. The users of mercury would bear the cost and responsibility of its proper handling and storage. Federal inspections could be as successful here as elsewhere. New construction would not be needed. No new environmental degradations would be required. No new populations would be threatened. That is the best kind of environmental justice. I appreciate the opportunity to provide input.

Niki Widmayer
 Unitarian Universalist Church of Midland
 CLA4303 Sentinel
 Midland, Texas 79703
 XXX-XXX-XXXX
 nikiwid@hotmail.com

25-9

Chapter 3, Section 3.8.5.4, indicates that a total of nine special status species could occur on site at WCS as a whole; however, only two of these are federally endangered. Chapter 4, Section 4.9.5.3, notes that no threatened or endangered species are known to occur within the two areas considered for construction of the mercury storage facility at WCS. Therefore, there would be no impact on this group of species as a result of constructing and operating the proposed facility; thus, there is no discrepancy. Section 3.8.5.4 has been revised for clarity and consistency with Section 4.9.5.3. Further, as reflected in revised Section 4.9.5.3, a site biological survey would be conducted to ensure that threatened and endangered species would not be impacted.

25-15

25-10

Costs are not presented in this *Mercury Storage EIS*. As described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act of 2008 (PL. 110-414) authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury.

25-11

DOE acknowledges the commentor's concerns about the cumulative impacts analysis and the compatibility of elemental mercury with other materials stored at WCS.

DOE is cognizant of compatibility issues with mercury storage. So as to mitigate any compatibility concerns, the proposed mercury storage facility(ies) would only store elemental (metallic) mercury that is at least 99.5 percent pure. As discussed in Chapter 2, Section 2.2, of this EIS, DOE has developed guidance, presented in *Interim Guidance* (DOE2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The *Interim Guidance* discusses DOE's anticipated waste acceptance criteria for discarded mercury to be stored at the facility(ies). All mercury to be stored at the facility(ies) must meet these requirements. Further, as an engineered, aboveground facility designed and constructed for the exclusive use of storing elemental mercury, a DOE mercury storage facility(ies) differs from the underground limestone mine operated by Meritex Enterprises in Lenexa, Kansas, as discussed in Section 2.6.1.

Commentator No. 25 (cont'd): Niki Widmayer

Section 2.2.1 describes the construction of a new mercury storage facility. It would be located in an area under the control and authority of DOE that would include appropriate fencing and security. The building construction would be primarily of noncombustible materials and would include a fire suppression system (e.g., sprinkler). The new facility would have a reinforced-concrete floor, strong enough to withstand the heavy loads from mercury storage. The floors would also be treated with an epoxy sealant to add strength and make them impervious to mercury leaks and spills and water from fire suppression systems. The exterior of the storage facility would likely be sheet metal panels fastened to structural steel supports and connected together to form a weather-protected structure. Lighting, ventilation, fire suppression, and security monitoring systems would be incorporated into the facility design.

25-12

DOE acknowledges the commentator's concerns about duplication of effort and costs associated with the disposition of stored elemental mercury. Please note that the mercury storage facility(ies) would not necessarily be shut down at the end of 40 years. If a disposal technology is developed prior to that time, the facility(ies) could be closed sooner; however, if such a technology has not been developed, storage would continue past 40 years. In this case, or if more than 10,000 metric tons (11,000 tons) need to be stored, additional NEPA documentation would have to be prepared.

25-13

DOE acknowledges the commentator's opposition to the long-term management and storage of elemental mercury at WCS. As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for such elemental mercury wastes. As described in Section 2.1, the Mercury Export Ban Act of 2008 (P.L. 110-414) does not specify how long the DOE mercury storage facility(ies) would need to be operated. For purposes of analysis, DOE assumes the operation of a mercury storage facility(ies) with a capacity of 10,000 metric tons (11,000 tons) over a 40-year period of analysis. These are estimates with a degree of uncertainty; therefore, it is possible that more or less than 10,000 metric tons (11,000 tons) of mercury could eventually require storage for a period longer or shorter than 40 years. Additional NEPA documentation would be required

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Commentor No. 25 (cont'd): Niki Widmayer

to evaluate expanding the facility(ies) to accept more than 10,000 metric tons (11,000 tons) of mercury or extending its operations beyond the 40-year period of analysis. Details on closure of the mercury storage facility are addressed in Chapter 4, Section 4.10.

25-14

DOE acknowledges the commentor's statements that concerns regarding site safety, water use, and the compatibility with other waste management activities at WCS have not been adequately addressed. Please see the responses to Comment Nos. 25-3, 25-5, 25-6, 25-7, 25-8, and 25-11.

25-15

DOE acknowledges the commentor's preference for the No Action Alternative. While DOE has given consideration to this alternative (see Chapter 4, Section 4.2), Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) requires DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States. However, the Act does not require generators to store their elemental mercury at the DOE storage site. Thus, some or all such mercury could be stored within or near the generating sites, which would be similar to the No Action Alternative.

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Commentor No. 26: Maureena Benavides

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Monday, March 29, 2010 2:59 PM

Please do not proceed with the mercury site in Andrews. I would devastate our environment and is not an adequate alternative.

Maureena Benavides
 Ector County isd
 3118 W Louisiana Ave
 Midland, TX 79701
 Maureena.benavides@ectorcountyisd.org

26-1

26-1

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS. Please see Chapter 2, Section 2.7, and Chapter 4, Section 4.9, for discussions of possible impacts at the site. As noted in these sections, there would be minimal impact on the environment if WCS is selected as the location of the mercury storage facility. As discussed in Chapter 1, Section 1.5.1, DOE initially screened 10 potential sites as to their adequacy for the storage of elemental mercury. WCS and 6 others met the evaluation criteria and were, therefore, evaluated further in this *Mercury Storage EIS*. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Commentor No. 27: A.J.

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Monday, March 29, 2010 3:32 PM

I am submitting my comments as part of the public comment period for the Environmental Impact Study being performed at the Waste Control Specialists WCS nuclear waste storage facility in Andrews TX. Waste Control Specialists submitted an Expression of Interest to solicitation No DE-SOL-0000415.

In reviewing the document I noted on page two the Department of Energy requested A site map showing the location of potential storage buildings or buildings on the site as well as nearby within 10 miles political e.g. city county boundaries communities especially minority low income or Native American roads railroads airports and water bodies wetlands floodplains parkland known fault lines or other environmentally sensitive areas. WSCs response is as follows This site has been studied extensively over the last seven years. Results of these studies establish that no water bodies wetlands floodplains parkland known fault lines or other environmental sensitive areas exist within a 10 mile radius of the site. The some of the statements made and documentation provided are false and misleading.

1. Figure 5.3 only addresses geothermal water and provides data for New Mexico not the State of Texas where the site is located. Credible water maps of the state of Texas would clearly show the Ogallala Pecos Valley and the two other aquifers that are directly under the WCS site.
2. Three key professional staffers quit the Texas Commission on Environmental Quality TCEQ after the TCEQ granted WCS the approval license overruling the staffers recommendation that the site not be approved. During the TCEQs review of the site Glen Lewis one of the staffers evaluating the site for the TCEQ stated that the site is threatened by dump water draining into two water tables. It may be as close as 14 feet from the bottom of the proposed trench. We found that those were unacceptable margins and were not the hundreds of feet of impermeable red bed clay that the applicant originally claimed Lewis says. <http://www.kcbd.com/Globalstory.aspx?S10267969> Subsequently the TCEQ executive director who overrode his staffs recommendation and approved the license quit the TCEQ and within six months became a lobbyist for WSC with a six figure salary.

27-1

27-2

27-1

27-2

27-3

It is not clear which figure the commentor is referring to as Figure 5.3 of the Expression of Interest submitted by Waste Control Specialists, LLC, to DOE. This figure addresses the nearest known fault lines to WCS, not groundwater. Please see Chapter 3, Section 3.8.3.2, of this *Mercury Storage EIS* for a discussion of the two principal aquifer systems in the vicinity of WCS, the High Plains Aquifer and the Dockum Aquifer.

DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414). Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

DOE also acknowledges the commentor's concerns regarding the depth to groundwater at WCS. Chapter 3, Section 3.8.3.2, of this EIS summarizes existing groundwater conditions at WCS, based on relevant information obtained and reviewed by DOE. Chapter 4, Section 4.4.3, addresses the impacts of facility construction and routine operations on surface-water and groundwater hydrology and existing contaminant plumes. As described in Section 4.9.3.2, construction of a mercury storage facility at WCS is not expected to affect groundwater due to the depth to groundwater and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). No mercury would be stored below ground level. A geotechnical study would be conducted to confirm site geologic characteristics for facility siting and engineering purposes, as noted in Section 4.9.2.1 of this EIS. This would include determination of the depth to groundwater beneath the mercury storage facility.

DOE acknowledges the commentor's statement regarding the location of the High Plains (Ogallala) Aquifer. Chapter 3, Section 3.8.2.1, of this *Mercury Storage EIS* describes the geologic strata that compose the High Plains Aquifer (also known as the Ogallala Aquifer) in the vicinity of the site. These include the unconsolidated sediments of the Ogallala, Antlers, and Gatuna Formations, which are informally called the OAG unit. Section 3.8.3.2 describes regional and local groundwater conditions, including the occurrence of the High Plains Aquifer. At present, the "dry line," or southernmost extent of groundwater saturation in the OAG unit, has been mapped to the north and east of the current WCS facilities. A review of

Commentor No. 27 (cont'd): A.J.

3. Dave Barry Spokesperson the EPA Region 6 has stated that the facility does sit above the Ogallala aquifer. It sits on the southern end of the aquifer. <http://www.kcbd.com/Globalstory.aspxS10259021c>

4. Transcripts from the 12-11-09 meeting of the TLLRWDC. In the identified video Waste Control Specialists President Rod Baltzar in an effort to support the claim that they are not above the Ogallala admitted that the Texas State Water Development Board modified their maps based on drilling data provided by Waste Control Specialists. <http://www.vimeo.com/8998939> Video 18. 12-11-09 3600 minutes into the video.

5. Here is the link to the Hobbs sheet of the Texas Geologic Atlas which I found on the Texas Water Development Board website. It is a publication of the Texas Bureau of Economic Geology. The area of the Ogallala is in the northwest corner of Andrews County Texas near the center of the sheet and extends NW -SE from Lea County NM into Andrews County. It is in brown and labeled on the map. The legend is on the right hand side. <http://www.twdb.state.tx.us/GwRDGTAGAThobbs.htm> This link is to the Google Maps page with this same area. As you can see the Ogallala is quite easily distinguished and it appears that the Waste Control Specialists facility is located directly over it. <http://maps.google.com/maps/lienie=UTF8&ll=32.439815-103.024979&spn=0.0847520.132008thz13>

6. The Ogallala Aquifer the Pecos Valley Aquifer and two additional aquifers are located directly under the WCS site in Andrews TX. Waste Control Specialists has misrepresented the hydrology of the area to the Department of Energy in trying to obtain this agreement.

No further action should be taken in regard to mercury storage at this site or any storage by the Department of Energy in Andrews County until an independent investigation is conducted. We are asking that the Department of Energy step in and conduct the investigation or refer another agency or organization that is headquartered outside the state of Texas. In view of the false and misleading material submitted by Waste Control Specialists I strongly recommend that this investigation be completed before the Department of Energy proceeds any further in reference to mercury storage at this site.

A. J.
Lubbock

geologic mapping, as summarized in Section 3.8.2.1, shows that an underlying bedrock feature (known as the red bed ridge) serves to deflect upward, thin, and locally "pinch out" the OAG unit in the immediate vicinity of the WCS facilities. Nonetheless, construction and routine operation of a mercury storage facility are not expected to have any impact on groundwater beneath WCS, as described in Chapter 4, Sections 4.9.3.1 and 4.9.3.2. The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility.

It is common practice to revise groundwater and similar subsurface maps as additional information becomes available from site-specific investigations. Once the information is properly analyzed, it can be incorporated into a revised map to produce better spatial resolution.

This *Mercury Storage EIS* was prepared by DOE and presents an objective and independent analysis of impacts at seven locations. This EIS does rely on some information that can only be provided by the individual sites being considered (e.g., utility use, affected environment, site diagrams), much of which comprises data that are submitted to and reviewed by the appropriate state permitting and regulatory agencies. Additionally, any technical data that were received were reviewed by independent technical experts for credibility before being accepted or referenced in this EIS.

27-3

27-4

27-4

**Commentor No. 28: Robert F. Stewart, Regional Environmental Officer
United States Department of the Interior**



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Denver Federal Center, Building 67, Room 118
Post Office Box 25907 (D-108)
Denver, Colorado 80225-0007

March 29, 2010

9043.1
ER 10/116

David Levenstein, Document Manager
Office of Environmental Compliance (EM-41)
U.S. Department of Energy
Post Office Box 2612
Germantown, MD 20874

Dear Mr. Levenstein:

The Department of the Interior has reviewed the Draft Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (EIS) at Facilities, Seven Alternative Sites, CO, ID, WA, NV, MO, SC and TX, and has no comments on the document.

Sincerely,

Robert F. Stewart
Regional Environmental Officer

28-1

28-1

Thank you for your review and for informing DOE that the U.S. Department of the Interior has no comments on the *Draft Mercury Storage EIS*.

**Commentor No. 29: Susan E. Bromm, Director, Office of Federal Activities
United States Environmental Protection Agency**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

MAR 29 2010

Mr. David Levenstein, EIS Document Manager
U.S. Department of Energy
Draft Mercury Storage EIS Comments
P.O. Box 2612
Germantown, MD 20874

Dear Mr. Levenstein:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act, the Environmental Protection Agency (EPA) has reviewed the Department of Energy's (DOE) Draft Environmental Impact Statement (EIS) for the Long-Term Management and Storage of Elemental Mercury (CEQ # 20100022). Our general comments are highlighted below with detailed comments enclosed for your consideration.

The Mercury Export Ban Act of 2008 amends Section 6 of the Toxic Substances Control Act to prohibit, effective October 14, 2008, any Federal agency from conveying, selling, or distributing any elemental mercury under its control or jurisdiction. It also prohibits the export of elemental mercury from the United States (US) effective January 1, 2013. For these reasons, DOE must identify a facility or facilities where mercury can be safely and securely stored.

The draft EIS analyzes the potential environmental, human health, and socioeconomic impacts of elemental mercury storage as mandated by Section 5 of the Act at seven candidate locations: Grand Junction Disposal Site near Grand Junction, Colorado; Hanford Site near Richland, Washington; Hawthorne Army Depot near Hawthorne, Nevada; Idaho National Laboratory near Idaho Falls, Idaho; Kansas City Plant in Kansas City, Missouri; Savannah River Site near Aiken, South Carolina; and Waste Control Specialists (WCS), LLC, near Andrews Texas. DOE's preferred alternative for storage is a combination of an existing facility and a new facility at WCS. WCS owns and commercially operates a 541-hectare (1,338-acre) site for the treatment, storage, and landfill disposal of various hazardous and radioactive wastes. This site is located approximately 50 kilometers (31 miles) west of Andrews, Texas, and 13 kilometers (8 miles) east of Eumee, New Mexico.

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**Commentor No. 29 (cont'd): Susan E. Bromm, Director, Office of Federal Activities
United States Environmental Protection Agency**

EPA requests clarification regarding the discussion of the human health and ecological risk assessment analysis that is contained in Appendix D of the draft EIS. This is particularly important in the discussions on the health effect reference values. We believe that the selection of the most appropriate values for this EIS should be revisited, especially in extrapolation of existing values to fill gaps in values desired for this application (i.e., use of the AEGL-2 divided by 10 as a surrogate for an AEGL-1). DOE has developed Protective Action Criteria that uses a modified AEGL-2 for severity level one for acute inhalation of elemental mercury. Instead EPA recommends these criteria include TEEL-0. TEELs should be used when AEGL or ERPG values are not available.

EPA believes that the current environment justice sections do not fully analyze the environmental impacts to minority and low income populations. Regarding the unit for geographic analysis, the draft EIS applies the local population statistics for determination of disproportionately. Because the EIS evaluates the alternatives at the national level, we recommend that the final EIS apply the national statistics as the appropriate unit. The geographic unit of comparison indicated that 88 percent of the total minority population in the three county areas of WCS is Hispanic. Thus, compared to the national statistic (15.4 percent for Hispanic/Latino population), the region of influence does include a population that is disproportionately minority. For this reason EPA requests that the final EIS fully describe/evaluate the economic, social, natural or physical environmental effects on minority, low-income, and susceptible populations. This analysis should also include an analysis of transportation, accidents, spill and emissions of mercury, and cumulative effects. Finally, given the substantial percentage of persons with "language other than English" in the area surrounding the preferred site, EPA recommends that DOE identify measures/materials used to accommodate the Hispanic population.

Based on the above issues we have rated the draft Lack of Objection (LO), (see enclosed "Summary of EPA Rating System"). However, as indicated via the comments there are some areas/issues where we request more clarification.

We appreciate the opportunity to review and comment on this document and look forward to reviewing the final EIS. In addition we are available to assist DOE with both the ecological risk assessment analysis and the environmental justice evaluation and analysis. If you have any further questions you may contact me at (202) 564-5400. You may also call my staff point of contact, Marthea Rountree. She can be reached at (202) 564-7141.

Sincerely,

 Susan E. Bromm
 Director
 Office of Federal Activities

Enclosures (2): Detailed Comments
 Summary of EPA Rating System

29-1 DOE has adopted the commentor's suggestion and is now using DOE's Protective Action Criterion 1 (PAC-1) for exposure durations of less than or equal to 1 hour and DOE's Temporary Emergency Exposure Limit 0 (TEEL-0) for durations of exposure exceeding 1 hour instead of the surrogate Acute Exposure Guideline Level 1 (AEGL-1), defined as $0.1 \times \text{AEGL-2}$, which was developed for use in the *Draft Mercury Storage EIS* because no AEGL-1 exists for mercury. See the revised discussion in Appendix D, Section D.1.1.2.1.

29-2 As described in Appendix B, Section B.11, DOE used its established methodology for the environmental justice analyses for all resource areas. The seven sites addressed in the EIS were evaluated and compared for their local characteristics. The major goal in DOE's environmental justice analyses is to identify "disproportionately high and adverse" impacts, as directed in Executive Order 12898. To identify a minority population in a given geographic area, DOE used either a threshold defined as 20 percentage points above the state or county population data or a 50 percent threshold, whichever value is lowest. The use of census block data as the unit of geographical and demographic measure is comparable from location to location.

Environmental impacts on resource areas for all potential candidate mercury storage sites are discussed in detail in Chapter 4, and a summary of environmental impacts is also provided in Chapter 2, Section 2.7.1. Because the results of the analyses indicate that the risks of environmental impacts on any resource area are predicted to be negligible to low, and the risks of high and adverse impacts on human health surrounding candidate sites and along potential transportation routes are likewise predicted to be negligible to low, the corresponding risks to minority or low-income populations would be low. The environmental impacts analyses for those candidate mercury storage sites where minority or low-income populations were identified are discussed in detail in Chapter 4, Sections 4.7, 4.8, and 4.9. Although DOE has reported its environmental justice conclusions based on results from the methodology used in the draft EIS, DOE has included information about the percentages of minority and low-income populations immediately surrounding the sites analyzed (See Table 3 in the *Summary and Guide for Stakeholders* and Table 2-1 in Chapter 2).

DOE researched potentially affected communities near all of the alternative sites and considered the possible need for Spanish translation for populations in the vicinity of WCS near Andrews, Texas. However, although the counties

**Commentor No. 29 (cont'd): Susan E. Bromm, Director, Office of Federal Activities
United States Environmental Protection Agency**

Long-Term Management and Storage of Elemental Mercury
Draft Environmental Impact Statement
Detailed Comments

General Concerns

- 1) The legislation requires DOE to "designate a facility or facilities of the Department of Energy" for the purpose of long-term management and storage of elemental mercury generated within the United States. However, DOE has identified and chosen the preferred alternative of a privately owned facility. The draft EIS does not offer an explanation as to why DOE believes that a private facility can be selected as the designated storage facility. EPA recommends that the final EIS provide an explanation for the consideration of a private facility.
- 2) The closure section of draft EIS includes the statement: "*Because the shipment of wastes resulting from closure should be relatively limited to a few truck trips, impacts on traffic and transportation are expected to be negligible.*" This statement appears to only recognize the waste that may be generated from decontamination of the storage facility, but does not seem to address the volume (tons) of elemental mercury stored at the facility and that will necessarily need to be moved due to closure. The account for this volume of mercury is not clear. EPA recommends that the final EIS clarify the volume of mercury and identify the potential risks, if any that this move would present.
- 3) The draft EIS discusses importing elemental mercury from U.S. - owned mines in Peru through New York City for long-term storage. Section 5 of the Mercury Ban Act requires the designation of a facility or facilities "for the purpose of long-term management and storage of elemental mercury generated within the United States." Since DOE is considering imported mercury from Peru, EPA recommends that the final EIS provide additional information as to whether or not DOE will consider storing other imported elemental mercury.

Appendix D (Human Health and Ecological Risk Assessment Analysis)

- 1) Throughout this appendix the cited source of the reference values discussed was the Graphical Arrays of Reference Values document. In the initial discussion, it is appropriate to mention this document as a secondary reference and resource for comparing the available reference values for exposures to elemental mercury; however, when citing a specific value (e.g., the reference concentration (RfC)) it is most appropriate to use the primary reference in this EIS. EPA recommends that when citing the source for a health effect reference value, the primary citation for the values be used in the EIS – the correct citations are provided in the Graphical Arrays of Reference Values document, beginning on page 139.
- 2) EPA believes that the choice of using one-tenth of the acute exposure guideline level (AEG1)-2 as a surrogate for an AEG1-1 should be revisited for Table D-2. We

<p>29-4</p>	<p>surrounding WCS contain a higher-than-average percentage of the population that speaks a language other than English at home, most of that population speaks English well or very well. Only 1.9 percent of the population surrounding WCS speaks no English at all. Based on this information, recommendations from local officials, and the absence of requests for translation at public scoping meetings, it was deemed inappropriate to presume a need for special accommodations for non-English-speaking stakeholders. To further ensure that such needs would be met if they did emerge, DOE sent postcards to all stakeholders on the project mailing list announcing public hearings and providing a phone number to call if any special accommodation was needed. Advertisements in local newspapers announced the hearings and again offered a number to call for any special needs. In addition, Spanish-speaking staff were present at public hearings in Eunice, New Mexico, and Andrews, Texas, in case the need for translation arose. No requests were received for special accommodations.</p>
<p>29-5</p>	<p>DOE acknowledges EPA's rating of the <i>Draft Mercury Storage EIS</i> and areas/issues that require clarification.</p>
<p>29-4</p>	<p>The issue raised by the commentor with respect to using a non-DOE facility (i.e., WCS) to store mercury is addressed by DOE in Chapter 2, Section 2.4. Footnote 4 states that DOE has interpreted Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) to authorize DOE to designate an existing and/or new storage facility (or facilities) at property owned or leased by DOE. If a non-DOE site is selected, DOE would acquire an appropriate ownership or leasehold interest in that facility to comply with Section 5 of the Act. This footnote now also appears earlier in the document in Chapter 1, Section 1.2.</p>
<p>29-5</p>	<p>DOE acknowledges the commentor's concerns regarding closure of the mercury storage facility and disposition of the stored elemental mercury. Circumstances under which the facility would be closed are highly speculative, as are the potential environmental impacts. Please note that the mercury storage facility(ies) would not necessarily be shut down at the end of 40 years. In the event that storage beyond the 40-year period of analysis becomes necessary or if more than 10,000 metric tons (11,000 tons) need to be stored, additional NEPA documentation would have to be prepared. Nevertheless, Chapter 4, Section 4.10, has been revised to note that potential environmental impacts of transportation of the stored mercury from the mercury storage facility to a suitable treatment, storage, and disposal facility would likely be similar to that associated with the initial transportation of mercury from the generators to the new mercury storage facility.</p>
<p>29-7</p>	
<p>29-8</p>	

**Commentor No. 29 (cont'd): Susan E. Bromm, Director, Office of Federal Activities
United States Environmental Protection Agency**

29-6 DOE is not considering storing elemental mercury that is not generated within the United States. Under RCRA, a waste is generated when it first becomes subject to waste regulations (generally, when the material is discarded). The *Draft Mercury Storage EIS* considered mercury coming from U.S. mining companies operating in foreign countries (e.g., Peru) because this mercury is currently brought into the United States and then processed at one of the reclamation and recycling facilities, and thus potentially could enter the domestic market. To provide a conservative estimate of environmental impacts associated with management and storage of the quantity of excess elemental mercury, the draft EIS considered the quantity of elemental mercury attributable to a potential continuation of this activity.

29-7 DOE has revised Appendix D of this *Mercury Storage EIS* and the "Occupational and Public Health and Safety" sections of Chapter 4 to cite the primary sources for the stated health effect reference values.

29-8 DOE has adopted the commenter's suggestion and is now using DOE's PAC-1 for exposure durations of less than or equal to 1 hour and DOE's TEEL-0 for durations of exposure exceeding 1 hour instead of the surrogate AEG-L-1, defined as $0.1 \times \text{AEG-L-2}$, which was developed for use in the *Draft Mercury Storage EIS* because no AEG-L-1 exists for mercury. See the revised discussion in Appendix D, Section D.1.1.2.1.

29-9 Appendix D, Table D-2, and Chapter 4, Table 4-1, have been revised as suggested.

29-10 DOE has adopted the commenter's suggestion and is now using DOE's PAC-1 for exposure durations of less than or equal to 1 hour and DOE's TEEL-0 for durations of exposure exceeding 1 hour instead of the surrogate AEG-L-1, defined as $0.1 \times \text{AEG-L-2}$, which was developed for use in the *Draft Mercury Storage EIS* because no AEG-L-1 exists for mercury. See the revised discussion in Appendix D, Section D.1.1.2.1.

29-11 DOE has adopted the commenter's suggestion and is now using DOE's PAC-1 for exposure durations of less than or equal to 1 hour and DOE's TEEL-0 for durations of exposure exceeding 1 hour instead of the surrogate AEG-L-1, defined as $0.1 \times \text{AEG-L-2}$, which was developed for use in the *Draft Mercury Storage EIS* because no AEG-L-1 exists for mercury. See the revised discussion in Appendix D, Section D.1.1.2.1.

29-8 cont'd

recommend that DOE use the Protective Action Criteria that was developed by DOE (http://www.hss.energy.gov/health/safety/wslip/chem_safety/teel.html), and include the use of the Temporary Emergency Exposure Levels (TEELs) when an appropriate AEG-L or Emergency Response Planning Guideline (ERPG) is not available. TEELs are available for elemental mercury at both the TEEL-1 and TEEL-0 levels -- 300 and 25 micrograms/m³, respectively. In view of the desire to protect both populations to a similar level, EPA suggests that the TEEL-0 level may be more appropriate as this is the same concentration as the American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit level/time-weight average (TLV-TWA), and the TEEL-1 is set at three times the OSHA permissible exposure limit. As noted in later comments, the TEELs, as well as the AEG-Ls and ERPGs were designed for "once-in-a-lifetime" exposure scenarios that assume negligible background exposures and may not be appropriate for these facilities.

Another alternative, and one that may be more appropriate, is the use of the acute (one-hour) California Reference Exposure Level, which is also cited in the Graphical Arrays document.

Additionally, the comment on the Initiation Severity Level 1 row of Table D-2 should strike the first phrase "Potential for minor irritation." If there was evidence for minor irritation from exposure to elemental mercury, an AEG-L-1 would have been developed.

3) The draft EIS makes the following statement on page D-11:

"In principle, it would be possible to develop an SL scheme tied to the IDLH, similar to that in Table D-2. Unfortunately, there are no IDLH equivalents of the three AEG-Ls. However, the IDLH approximately equals AEG-L-3 for a 30-minute exposure (11 mg/m³; see Table D-19). It therefore seems reasonable to adopt the same acute-inhalation SLs for workers as for members of the public. One could make a case that this is conservative because workers are generally expected to be healthy while the AEG-Ls are crafted to include susceptible members of the public. Therefore, Table D-2 applies to workers as well as to the public."

a) The immediately dangerous to life or health (IDLH) is most similar to an AEG-L-3 as is noted correctly in the text; however, there are other acute occupational values that are more consistent with an AEG-L-1 definition, namely the National Institute for Occupational Safety and Health (NIOSH) ceiling values. EPA recommends that DOE revisit this text after consideration of the other comments provided in this letter.

b) AEG-Ls were developed with an assumption of an "once-in-a-lifetime" exposure scenario. In order to provide adequate protection for the combined populations of workers and the public, and to avoid a potential risk communication problem (i.e., more stringent protections for on-site workers than for public outside the fence line), EPA recommends other occupational values (i.e., ACGIH TLV-TWA) or TEEL-0 values be used in Table D-2 and be reflected in this text. In addition, as noted later in

**Commentor No. 29 (cont'd): Susan E. Bromm, Director, Office of Federal Activities
United States Environmental Protection Agency**

Appendix D, slow leaks with extended durations are expected at a relatively high frequency leading to the potential for there to be high background ambient levels of elemental mercury near these facilities (some reported to be in excess of the RIC – see next comment). Considering such a high background from a persistent bioaccumulative toxin like mercury would likely preclude the use of values developed on a presumption of a rare, “once-in-a-lifetime” exposure in this type of situation.

29-11
cont'd

See the response to Comment No. 29-8 for a discussion of the expected background levels of mercury near storage buildings and how these are low enough not to “preclude the use of values developed on a presumption of a rare ‘once-in-a-lifetime’ exposure in this type of situation.”

4) The following statement is made on page D-51: “The ambient air concentration downwind of the storage building has been continuously monitored since 1986 and averages 3.60×10^{-4} mg/m³, again well below EPA’s RIC of 3.00×10^{-4} mg/m³.” The monitored average reported may be a typographical error. However if it is not, the average is above the RIC. In addition, at the end of the preceding paragraph the RIC is incorrectly reported to be 3.0×10^{-6} mg/m³. The value for the monitored average downwind concentration should be verified and if needed the comparison to the RIC should be corrected. The final EIS should consistently report the correct RIC value which is 3.0×10^{-4} mg/m³.

29-12

DOE disagrees that it is using more-stringent protections for onsite workers than it is for members of the general public. For long-term exposures during normal operations, the exposure limit for workers is the American Conference of Governmental Industrial Hygienists’ 8-hour time-weighted average of 25,000 nanograms per cubic meter, while that for the general public is the EPA’s reference concentration of 300 nanograms per cubic meter. For “once-in-a-lifetime” exposure scenarios, DOE uses the same hierarchy of AEGL-3, AEGL-2, and PAC-1 and TEEL-0 exposures—these threshold levels correspond to inhalation Severity Levels IV (most severe) to I (least severe) for both the public and onsite workers (see Appendix D, Section D.1.1.2.1 and D.1.1.2.2). Since the AEGLs, PACs, and TEELs have been developed for the general population, including sensitive populations (see Section D.1.1.2.1), their application to healthy workers can reasonably be regarded as conservative.

Environmental Justice

1) In Table 3 *Comparison of Impacts, Summary and Guide for Stakeholders*, the draft EIS states that with respect to environmental justice for the preferred alternative site, WCS, there are “No disproportionate impacts on low income and/or minority individuals.” The basis for this conclusion is the application of the population statistic for the counties and states which are included in the region of influence (ROI) as the unit for geographic analysis. However, the draft EIS also indicates that within the ROI, the 16 kilometer radius includes a 40 percent minority, and the 3.2 kilometer radius includes 27 percent minority. The draft EIS uses as its geographic unit for analysis a three county area (which is 44 percent minority) and a two state area (which is 48 percent minority), which is the basis for its conclusion. CEQ guidance provides that the selection of the appropriate unit of geographic analysis should “not artificially dilute or inflate the affected minority population.” Thus, in this case, use of a local and state statistic diluted the affected minority population. Since the EIS involves a national siting process involving eight different states, in order to ensure national consistency, EPA requests that the final EIS apply the national population statistic (15.4 percent) as the appropriate unit for geographic analysis to determine whether the affected area includes minority populations or low-income populations.

29-13

DOE appreciates EPA’s review and has corrected the cited typographical errors in Appendix D, Section D.4.1.2. The monitored average reported should be 3.6×10^{-6} milligrams per cubic meter; the value for the reference concentration should be 3.0×10^{-4} milligrams per cubic meter.

29-13

See the response to Comment No. 29-2.

29-14

See the response to Comment No. 29-2. For each of the candidate mercury storage sites where the region of influence was determined to contain a minority or low-income community, such factors including the presence of sensitive populations and access to health care are discussed. Please see Chapter 3, Sections 3.6.11, 3.7.11, and 3.8.11, and Chapter 4, Sections 4.7.12, 4.8.12, and 4.9.12.

29-14

The methodology used for the environmental justice analysis is described in Appendix B, Section B.11. The methodology was applied consistently to each site, although analyses may appear to be inconsistent because the conditions at the sites are different. The appropriate text in the *Summary and Guide for Stakeholders*, Chapter 2, and Chapter 4 has been revised to clarify and/or present potential transportation accident analyses in a more-consistent manner. See also the response to Comment No. 29-2.

29-15

**Commentor No. 29 (cont'd): Susan E. Bromm, Director, Office of Federal Activities
United States Environmental Protection Agency**

consideration of disproportionately as it relates to "adverse human health or environmental effects" on minority populations and low-income populations; it does not apply disproportionately to the population itself. To fully describe the impact on the human environment of the Federal action on minority populations and low income populations residing within the affected area, the EIS should provide baseline information on the vulnerabilities that exist within minority populations and low-income populations. Based on this analysis, the EIS should determine whether there are risks to vulnerable populations that can be eliminated through mitigation measures, and describe those measures if appropriate.

3) Environmental justice analyses within the area of review for the different alternative sites are not consistent. For example, analysis of transportation and accidents impacting minority and low income populations varies. While the preferred alternative WCS site used 1.6 miles as the "potentially impacted area", the Savannah River site used the area along a potential transportation route (e.g. US Route 278) leading to the site as its area of analysis. The Kansas City site used a location at or near the entrance of the facility. EPA believes that analysis within the potentially impacted areas be consistent between the alternatives.

4) The draft EIS describes the minority and low income population statistics of the ROI and geographic unit of comparison. However, because DOE's evaluation determined that there was no disproportionate impact on low income and/or minority individuals, the draft EIS does not analyze the implications of minority and low-income status of the population as they pertain to public participation, mitigation and cumulative effects. As previously indicated, EPA believes that WCS does include a population that is disproportionately minority. For this reason we request that DOE analyze these areas accordingly. In addition, the draft EIS identifies three counties within WCS's ROI as Health Professional Shortage Areas (HPSAs) as designated by the U.S. Health and Human Services. Andrews County, Texas has been designated as a primary medical care HPSA for low-income populations. Gaines County, Texas and Leas County, New Mexico are both designated as primary medical care, dental, and mental health HPSAs. These HPSAs should also be a consideration in the analysis. Particularly with regard to accidents, spills, and emission from operations (including venting of mercury vapors) on populations that lack access to health care. Because 30 percent of the population is under the age of 18 particular attention should be made to children.

5) The public involvement discussion of the draft EIS describes the nature of the process used to involve the public in the scoring process. This description does not indicate that translation of materials and meetings into Spanish has been provided. The importance of this translation is particularly important due to the fact that for the preferred alternative site, WCS, the percentage of persons with "language other than English" is over 30%. Transparency and meaningful participation should be provided for minority populations in the affected area who are non-English speaking. EPA recommends that DOE expand the nature of public participation for persons who speak a language other than English. This should include Spanish translation of draft EIS materials and meetings.

As described in the appropriate sections of Chapter 3, minority and/or low-income communities are not found in the regions of influence surrounding GJDS, Hanford, the Hawthorne Army Depot, or INL, but have been identified in those surrounding KCP, SRS, and WCS. As discussed in Chapter 4, Section 4.7.9.3, transportation accidents are predicted to pose a negligible-to-low risk to all human receptors, regardless of race, ethnicity, and economic status. This measure of risk applies to any segment of a transportation route. The analysis of the KCP alternative identified minority and low-income communities adjacent to potential transportation routes. Similarly, the analysis of the SRS alternative identified minority communities directly adjacent to one of the entrances into SRS located at South Carolina Highway 19 and adjoining U.S. Route 278. The other site entrances into SRS identified in Section 3.7.10.3 do not contain adjacent minority or low-income communities. The analysis of the WCS alternative identified a minority community approximately 10 kilometers (6 miles) west of the facility near potential transportation routes.

29-16

See the response to Comment No. 29-2. The environmental consequences of the alternatives analyzed in Chapter 4 identify only negligible-to-low adverse impacts and human health risks to populations surrounding the candidate facilities, including minority and low-income populations. Since no environmental justice impacts have been identified, no mitigation measures are necessary, there would be no incremental cumulative effect, and further discussion of the presence of Health Professional Shortage Areas is unwarranted. Note that there is no appreciable difference between the percentage of the population under the age of 18 surrounding WCS and the corresponding segment of the U.S. population.

29-17

DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to participate. Throughout the *Mercury Storage EIS* process, DOE conducted a rigorous outreach program to inform the public and solicit input: 17 public meetings/hearings were held near the seven candidate mercury storage locations, and information was provided at meetings, hearings, and on the *Mercury Storage EIS* website.

DOE researched potentially affected communities near all of the alternative sites and considered the possible need for Spanish translation for populations in the vicinity of WCS. However, although the counties surrounding WCS contain a higher-than-average percentage of the population that speaks a language other than English at home, most of that population speaks English well or very well.

29-15

29-16

29-17

***Commentor No. 29 (cont'd): Susan E. Bromm, Director, Office of Federal Activities
United States Environmental Protection Agency***

Only 1.9 percent of the population surrounding WCS speaks no English at all. Based on this information, recommendations from local officials, and the absence of requests for translation at public scoping meetings, it was deemed inappropriate to presume a need for special accommodations for non-English-speaking stakeholders. To further ensure that such needs would be met if they did emerge, DOE sent postcards to all stakeholders on the project mailing list announcing public hearings and providing a phone number to call if any special accommodation was needed. Advertisements in local papers announced the hearings and again offered a number to call for any special needs. In addition, Spanish-speaking staff were present at public hearings in Eunice, New Mexico, and Andrews, Texas, in case the need for translation arose. No requests were received for special accommodations.

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Commentor No. 30: John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Monday, March 29, 2010 4:04 PM

NOT INTENDED AS OFFICIAL STATE OF TENNESSEE COMMENTS

Tennessee Department of Environment and Conservation DOE Oversight Radiological Monitoring and Oversight Program Document Review Date of Review March 29, 2010 By John Wojtowicz Document Title Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement Mercury Storage EIS Document Number DOE/EIS-0423D.

Discussion: TDEC is pleased to have this opportunity to review the above cited document. One concern that DOE-Oversight has with the document is the possibility that the Mercury now stored at Y-12 may not be transferred to the proposed facility.

Finally, the document suffers from inadequate editing. A more thorough job of removing unnecessary typos and error in fact needs to be done.

Included below are additional comments many of an editorial nature. TDEC Specific Comments:

Page i: 1.7.2 Hanford Site. This Section appears on page 1-17 of the Draft EIS not on page 1-18.

Page i: 1.7.4 Idaho National Laboratory. This Section appears on page 1-19 of the Draft EIS not on page 1-20.

Page i: 1.7.7 Waste Control Specialists LLC and 1.7.8 Y-12 National Security Complex. Waste Control Specialists LLC appears on page 1-20 not on page 1-21. Y-12 National Security Complex appears on page 1-20 not on page 1-21.

Page xvi: Appendix A. The page numbering for the Appendix is confusing. The Title Page for Appendix A as well as the Title Page for Public Law 110-414 are designated as Page A-1. The Table of Contents for the Appendix is not listed here as Page A-i as it should be.

30-1

30-2

30-3

30-4

30-1

30-2

30-3

30-4

The Mercury Export Ban Act of 2008 (P.L. 110-414) requires DOE to construct and operate a facility (or facilities) for the long-term storage of elemental mercury; however, the Act does not require that mercury be transferred to the facility(ies). Furthermore, there may be some ongoing DOE missions that require the use of elemental mercury. Therefore, as described in Chapter 1, Section 1.3.1, either the entire inventory of Y-12 mercury or a portion of this inventory could be retained in storage at Y-12.

DOE appreciates the commentor’s editorial suggestions. This *Final Mercury Storage EIS* has been thoroughly edited and revised, where appropriate, for consistency.

The “Table of Contents” has been regenerated.

Appendix A and its corresponding “Table of Contents” listing have been revised to be consistent with the style of the other chapters and appendices.

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page xxii: Figure C-1. On Page C-1 the full title of the Figure is Dimensions of a Typical 3-Liter Flask (inches). It should also be the same here.</p>	30-5	<p>The editorial convention used in preparing this EIS is to remove measurement units from table and figure titles for listing in the "Table of Contents."</p>
<p>Page xxiii: Figure C-2. On Page C-2 the full title of the Figure is Dimensions of a Typical 1-Metric-Ton Container inches. It should also be the same here.</p>	30-5	<p>The editorial convention used in preparing this EIS is to remove measurement units from table and figure titles for listing in the "Table of Contents."</p>
<p>Page xxv: Table 4-5. Predicted Range of Distances Downwind Within Which Acute Airborne Severity Levels Are Exceeded Crashes with Fires All Sites should be Predicted Range of Distances (meters) Downwind Within Which Acute Airborne Severity Levels Are Exceeded Crashes with Fires All Sites.</p>	30-6	<p>Appendix D and its corresponding "Table of Contents" listing have been revised to be consistent with the style of the other chapters and appendices.</p>
<p>Page xvii: Appendix D. The page numbering for the Appendix is confusing. The Title Page for Appendix D as well as the Title Page for the Introduction are designated as Page D-1. The Units of Measure included after the Title Page for the Appendix does not have a page number and is not listed here.</p>	30-6	<p>The "List of Acronyms and Abbreviations" does not include those used in citations. See the appropriate reference list for the callout. However, in this <i>Final Mercury Storage EIS</i>, National Research Council citations found in Appendix D are spelled out so as not to be confused with U.S. Nuclear Regulatory Commission citations.</p>
<p>Page xxviii: Table D-30. The full title of this Table is Predicted Range of Distances (meters) Downwind Within Which Acute Airborne Severity Levels Are Exceeded Crashes with Fires. See Page D-62.</p>	30-5 cont'd	<p>The alignment of the metric-to-English measurement unit conversion chart has been corrected.</p>
<p>Page xxxiii: NRC is used for both National Research Council and Nuclear Regulatory Commission in this document. See Page D-129 and Page D-130.</p>	30-7	<p>The "List of Acronyms and Abbreviations" does not include those used in citations. See the appropriate reference list for the callout.</p>
<p>Page xxxvii: Conversions. The columns of this Table require realignment in order for the conversions to be understood.</p>	30-8	<p>The chemical formulas provided in Chapter 1, Section 1.1., do not function as abbreviations; for example, CH₃Hg is the formula given for methylmercury, but this formula does not replace the term "methylmercury" in the rest of the chapter. Chemical formulas are provided to express information about the atoms that make up a chemical compound; they have not been added to the "List of Acronyms and Abbreviations."</p>
<p>Page xxxvix: Table D-55 Title. The complete Title of the Table is Deposition Velocities for Divalent Mercury (cm/s) for Various Types of Land Areas in Atmospheric Stability Class A and should be included here as such.</p>	30-5 cont'd	<p>This correction has been made.</p>
<p>Page xxxvix: Table D-56 Title. The complete Title of the Table is Dry Deposition Velocities (cm/s) for Divalent Mercury and should be included here as such.</p>	30-9	<p>This correction has been made.</p>
<p>Page 1-1: Introduction Paragraph 1 Line 17. UNEP is not in the List of Acronyms and Abbreviations. Page 1-1: Introduction Paragraph 2. Should Hg₀, HgCl₂, HgS, CH₃Hg, Hg^o and Hg₂ be included in the List of Acronyms and Abbreviations.</p>	30-9	<p>The chemical formulas provided in Chapter 1, Section 1.1., do not function as abbreviations; for example, CH₃Hg is the formula given for methylmercury, but this formula does not replace the term "methylmercury" in the rest of the chapter. Chemical formulas are provided to express information about the atoms that make up a chemical compound; they have not been added to the "List of Acronyms and Abbreviations."</p>
<p>Page 1-4: Paragraph 3 Lines 5-8. The sentence "The quantity of mercury from waste reclamation and recycling facilities is dependent on the volume of waste and recyclable materials processed and are likely to decrease as programs to collect mercury-containing thermometers thermostats switches and natural-gas-</p>	30-10	<p>This correction has been made.</p>

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

30-10 cont'd	metering devices are completed." Should read, "The quantity of mercury from waste reclamation and recycling facilities is dependent on the volume of waste and recyclable materials processed and are likely to decrease as programs to collect mercury-containing thermometers thermostats switches and natural-gas-metering devices are completed.	30-11	This citation appears at the end of the discussion of this document within the same paragraph, which ends on the next page. This placement is appropriate; thus, no change is needed.
30-11	Page 1-4: Paragraph 4 Lines 67. The report, Potential Export of Mercury Compounds from the United States for Conversion to Elemental Mercury to Congress in October 2009, is listed in the Chapter 1 references as EPA 2009 and should be cited as such here.	30-12	The "List of Acronyms and Abbreviations" does not include those used in citations. See the appropriate reference list for the callout.
30-12	Page 1-5: Candidate Sites. Paragraph 1 Line 2. Fed Biz Opps is not in the List of Acronyms and Abbreviations.	30-13	The term "LLC" is part of the company's formal title; this title is presented as such in this EIS. "LLC" has not been added to the "List of Acronyms and Abbreviations."
30-13	Page 1-6: Bullet 9. LLC is not in the List of Acronyms and Abbreviations.	30-14	This reference has been added to the Chapter 1 reference list.
30-14	Page 1-9: Paragraph 3, Line 16. The reference 42 U.S.C. 6939f(a)(1) is not in the Chapter 1 References.	30-15	This shortened title appears in the "List of Acronyms and Abbreviations" under "Final WM PEIS."
30-15	Page 1-17: Paragraph 2, Line 2. WM PEIS is not in the List of Acronyms and Abbreviations.	30-16	No change is needed.
30-16	Page 1-17: 1.7.2 Hanford Site Lines 2-3. Would it be better to use the abbreviation HCP-EIS rather than Hanford Comprehensive Land-Use Plan EIS? It appears that this abbreviation for the document is used commonly elsewhere.	30-17	Per the editorial convention used in preparing this EIS, in-text citation of court cases, including case name and number, provides sufficient information for the reader to access the information.
30-17	Page 1-18: Paragraph 4 Line 2-3. Should State of Washington v. Bodman Civil No. 203-cv-0518-AAAM be put in the Chapter 1 References?	30-18	The "Environmental Impact Statement for Retrieval, Treatment, and Disposal of Tank Waste and Closure of Single-Shell Tanks at the Hanford Site, Richland, Washington" was not published; thus, it should not appear in the reference list. As explained in the paragraph, the <i>Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington</i> replaced the former EIS.
30-18	Page 1-18: Paragraph 4 Line 5-7. Should Environmental Impact Statement for Retrieval Treatment and Disposal of Tank Waste and Closure of Single-Shell Tanks at the Hanford Site Richland Washington DOE/EIS-0356 be placed in the Chapter 1 References?	30-19	Because the next sentence refers the reader to the subsection that focuses on the <i>Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington</i> , which appears on the same page and includes the document number and citation for the EIS, adding a citation is unnecessary.
30-19	Page 1-18: Paragraph 4 Line 10. Should the TC & WM EIS be cited here as it is in the Chapter 1 References (i.e., DOE 2009b)?	30-20	An in-text citation and its associated reference have been added.
30-20	Page 1-20: Paragraph 1 Line 1. Should the reference for the 2002 SA be placed in the Chapter 1 References and cited here?	30-21	This citation has been added.
30-21	Page 2-1: Paragraph 1 Line 5. The Mercury Export Ban Act of 2008 is listed in the Chapter 2 References as P.L. 110-414 and should be cited as such here.		

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page 2-2: 2nd Last Paragraph Line 2. MT is not in the List of Acronyms and Abbreviations.	30-22	“1-MT” appears in the “List of Acronyms and Abbreviations.”
Page 2-9: Figure 2-5 Source Line 2. NMA is not in the List of Acronyms and Abbreviations.	30-12 cont'd	Per the editorial convention used in preparing this EIS, tables and figures are standalone. Thus, whatever acronyms and abbreviations are listed in a figure or table legend or key do not need to be listed in the overall “List of Acronyms and Abbreviations.”
Page 2-13: Figure 8 Key Lines 1-2. EMSL, ERDF, and LIGO are not in the List of Acronyms and Abbreviations.	30-23	This reference has been added to the Chapter 2 reference list.
Page 2-19: Figure 2-13 Key Lines 1-4. ARA, ATR, CFA, CITRC, EBR-I, MFC, NFR, and TAN are not in the List of Acronyms and Abbreviations.	30-17 cont'd	The <i>Federal Register</i> citation given is sufficient because data from the two reports were not used in preparing this section or presented in this section.
Page 2-22: Footnote 5 Lines 1 & 2. Should Public Service Co. of Colorado v. Batt (Civil No. CV 91-0035-S-EJL) and United States v. Batt (Civil No. CV-91-0054-S-EJL) be included in the Chapter 2 References?	30-23	
Page 2-31: Figure 2-24 Key Line 1. LLRW and LSA are not in the List of Acronyms and Abbreviations.	30-24	
Page 2-32: Storage-Related Alternatives Paragraph 1 Line 2. The reference for 42 U.S.C. 6939f(a)(1) is not included in the Chapter 2 References.	30-25	
Page 2-33: Last Paragraph Line 3; Page 2-34 First Paragraph Line 12. Should the references USEPA 2002a. U.S. Environmental Protection Agency. Technical Background Document: Mercury Wastes-Evaluation of Treatment of Mercury Surrogate Waste. Final Report. February 8, 2002, and USEPA 2002b. U.S. Environmental Protection Agency. Technical Background Document Mercury Wastes. Evaluation of Treatment of Bulk Elemental Mercury. Final Report. February 8, 2002, be included in the Chapter 2 References?	30-23 cont'd	
Page 2-36: Table 2-1 Key Lines 1 & 2. DoD, km, and m are not in the List of Acronyms and Abbreviations.	30-12 cont'd	
Page 3-15: Regional Economic Characteristics Paragraph 1 Line 3. BLS is not in the List of Acronyms and Abbreviations.	30-23 cont'd	
Page 3-15: Local Transportation Paragraph 1 Line 2. CDOT is not in the List of Acronyms and Abbreviations.		
Page 3-19: Figure 3-3 Key Lines 1 & 2. EMSL, ERDF, and LIGO are not in the List of Acronyms and Abbreviations.		

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page 3-24: Figure 3-4 Key Lines 2 & 3. FFTF and TEDF are not in the List of Acronyms and Abbreviations.</p>	<p>30-23 cont'd</p>	<p>These are the specific riparian habitats addressed within the cited reference (i.e., Duncan, J.P., ed., 2007, <i>Hanford Site National Environmental Policy Act (NEPA) Characterization</i>, PNNL-6415, Rev. 18, Pacific Northwest National Laboratory, Richland, Washington, September), which was prepared by Hanford biologists.</p>
<p>Page 3-34: Wetlands Paragraph 1 Lines 1 & 2. It doesn't appear appropriate to refer to riffles, gravel bars, and backwater sloughs as riparian habitat although cobble shorelines could be construed as such.</p>	<p>30-26</p>	<p>30-26</p>
<p>Page 3-35: Page 3-36: Table 3-5. <i>Cuscuta denticulate</i> should be <i>Cuscuta denticulate</i>; <i>Rhinichthys flaccatus</i> should be <i>Rhinichthys falcatus</i>; <i>Sceloporus graciosus</i> should be <i>Sceloporus graciosus</i>. WDFW is not in the List of Acronyms and Abbreviations.</p>	<p>30-12 cont'd</p>	<p>Chapter 3, Section 3.3.7.3, has been revised to reflect the fact that all fuel oil consumption was in the 200-West Area.</p>
<p>Page 3-39: Paragraph 6 Line 14. CTUIR is not in the List of Acronyms and Abbreviations.</p>	<p>30-27</p>	<p>The editorial convention used in preparing this EIS is to use "an" before "RCRA" because a reader from the general public will speak each letter rather than pronounce it as a word.</p>
<p>Page 3-42: Paragraph 3 Lines 2 & 3. It is indicated here that fuel oil use in the 200-West Area amounted to approximately 780,000 gallons for 2006. In the paragraph above the same number for fuel oil is quoted for the entirety of the 200 areas. Was no fuel oil used in the 200-East Area during 2006?</p>	<p>30-28</p>	<p>"BNSF" was not added to the "List of Acronyms and Abbreviations" because it does not appear anywhere else in this EIS; it is used because it is the common name of a railroad.</p>
<p>Page 3-43: Paragraph 1 Line 3. Should an RCRA be a RCRA?</p>	<p>30-29</p>	<p>"BCPD" was not added because the "List of Acronyms and Abbreviations" does not include those used in citations. See the appropriate reference list for the callout.</p>
<p>Page 3-45: Paragraph 1 Line 7. Should an RCRA be a RCRA?</p>	<p>30-12 cont'd</p>	<p>Neither "RDX" nor "TNT" have been added to the "List of Acronyms and Abbreviations" because both are used only once in this EIS; the acronyms are given in the text because they are more widely understood than the corresponding formal names "cyclotrimethylenetrinitramine" and "trinitrotoluene."</p>
<p>Page 3-48: Paragraph 3 Line 3. GAP is not in the List of Acronyms and Abbreviations.</p>	<p>30-29</p>	
<p>Page 3-49: Paragraph 5 Line 7. WSDOT is not in the List of Acronyms and Abbreviations.</p>	<p>30-12 cont'd</p>	
<p>Page 3-49: Paragraph 6 Lines 2-5. BNSF is not in the List of Acronyms and Abbreviations. BCPD is not in the List of Acronyms and Abbreviations.</p>	<p>30-30</p>	
<p>Page 3-55: Paragraph 2 Line 2. SOC is not in the List of Acronyms and Abbreviations.</p>	<p>30-12 cont'd</p>	
<p>Page 3-62: Paragraph 1 Line 3. TNT and RDX are not in the List of Acronyms and Abbreviations.</p>	<p>30-30</p>	
<p>Page 3-83: Paragraph 2 Line 3. IMNH is not in the List of Acronyms and Abbreviations.</p>	<p>30-12 cont'd</p>	

Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight

<p>Page 3-84: Table 3-12 Site Capacity Column Energy Consumption. In this column the site capacity is given as 481,800 megawatt-hours per year; however, in Footnote b it is stated that, "Assumes power demand up to 1.320 megawatts per year." The way these two facts relate is unclear.</p>	<p>30-31</p> <p>The cited footnote in Chapter 3, Table 3-12, has been corrected to read "assumes a daily power demand of up to 1,320 megawatts." This value is the maximum power demand from INL that is currently supplied by Idaho Power. This value, multiplied by 365 days, equates to 481,800 megawatt-hours per year.</p>
<p>Page 3-88: Paragraph 4 Line 4. WHPP is not in the List of Acronyms and Abbreviations.</p>	<p>30-32</p> <p>This sentence has been revised.</p>
<p>Page 3-90: Local Transportation Paragraph 1 Line 8. ITD is not in the List of Acronyms and Abbreviations.</p>	<p>30-33</p> <p>"Class FW" is a designation for freshwaters under the South Carolina Department of Health and Environmental Control. "FW" was not added to the "List of Acronyms and Abbreviations" because it is not used outside the context of this classification elsewhere in this EIS in place of "freshwater."</p>
<p>Page 3-98: Paragraph 7 Line 2. NPS is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-99: Paragraph 4 Line 2. KCC is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-104: Paragraph 6 Line 6. MODOT is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-104: Paragraph 6 Line 12. FAA is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-108: Paragraph 1 Lines 4-13. HRSA is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-110: Paragraph 2 Line 4. SREL is not in the Acronyms and Abbreviations.</p>	
<p>Page 3-112: Paragraph 4 Line 6. 27 meters to 128 feet (89 to 420 feet) should be 27 to 128 meters feet (89 to 420 feet).</p>	
<p>Page 3-113: Paragraph 2 Line 8. SCEEPP is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-114: Paragraph 5 Lines 2-8. FW is not in the List of Acronyms and Abbreviations. SCR is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-117: Paragraph 3 Line 4. WSRC is not in the List of Acronyms and Abbreviations.</p>	
<p>Page 3-118: Paragraph 5 Line 4. SRNS is not in the List of Acronyms and Abbreviations.</p>	

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page 3-119: Table 3-15 Last Column, Mercury Level. The maximum level for mercury for SRS in the Table 0.002 micrograms/cubic meter 2006 data is considerably less than the levels found at Augusta in 2008 (0.015 micrograms cubic meter). Is it possible that the 2008 data for the Savannah River Site would also show elevated levels?</p>	<p>30-34</p>	<p>The maximum mercury level reported for SRS is the contribution from SRS sources and does not include contributions to background concentrations from other sources. The highest ambient mercury concentration (0.015 micrograms per cubic meter) reported for Augusta for 2008 was for 1 observation out of 40 reported that year. The second- through fourth-highest values reported for 2008 and the four highest values reported in 2007 were on the order of 0.005–0.006 micrograms per cubic meter. Average values for 2007 and 2008 were 0.0028 and 0.0032 micrograms per cubic meter, respectively. The reason for the one elevated mercury observation in 2008 is not readily identifiable, and any effect on areas closer to SRS cannot be readily determined.</p>
<p>Page 3-122: Table 3-17 Source. SCDNR is not in the List of Acronyms and Abbreviations.</p>	<p>30-12 cont'd</p>	<p>Because "OAG" is an informal acronym used in a narrow, site-specific context, it does not warrant inclusion in the EIS-wide "List of Acronyms and Abbreviations."</p>
<p>Page 3-123: Paragraph 5 Line 5 & 6. Should an actual citation be done for the Cold War Built Environment Cultural Resources Management Plan and the reference be placed in the Chapter 3 References?</p>	<p>30-20 cont'd</p>	<p>The sentence questioned by the commentor in Chapter 3, Section 3.8.4.2, refers to existing site operations; however, it has been revised for clarity. Potential noise impacts from the proposed storage facility are addressed in Chapter 4, Section 4.9.4.3.</p>
<p>Page 3-129: Paragraph 4 Line 6. SRNS is not in the List of Acronyms and Abbreviations.</p>	<p>30-12 cont'd</p>	<p>Because "OAG" is an informal acronym used in a narrow, site-specific context, it does not warrant inclusion in the EIS-wide "List of Acronyms and Abbreviations."</p>
<p>Page 3-130: Paragraph 1 Line 6. SCDOT is not in the List of Acronyms and Abbreviations.</p>	<p>30-35</p>	<p>The sentence questioned by the commentor in Chapter 3, Section 3.8.4.2, refers to existing site operations; however, it has been revised for clarity. Potential noise impacts from the proposed storage facility are addressed in Chapter 4, Section 4.9.4.3.</p>
<p>Page 3-136: Paragraph 1 Line 11. OAG is not in the List of Acronyms and Abbreviations.</p>	<p>30-35</p>	<p>The sentence questioned by the commentor in Chapter 3, Section 3.8.4.2, refers to existing site operations; however, it has been revised for clarity. Potential noise impacts from the proposed storage facility are addressed in Chapter 4, Section 4.9.4.3.</p>
<p>Page 3-141: Noise Paragraph 1 Line 5. Noise levels from the plant are expected to be compatible with nearby land uses. Should this statement indicate noise levels from the mercury storage facility rather than the plant?</p>	<p>30-36</p>	<p>This misspelling has been corrected.</p>
<p>Page 3-142: Table 3-20 Second Column Last Entry. Sceloporus arenicolus should be Sceloporus arenicolus.</p>	<p>30-37</p>	<p>The sentence has been corrected to read, "production from the central well is at a rate of 95–114 liters (25–30 gallons) per minute or 50–60 million liters (13–16 million gallons) per year."</p>
<p>Page 3-144: Water Paragraph 1 Lines 4-5. Should "Production from the central well is at a rate of 95-114 liters (25-30 gallons) or 50-60 million liters (13-16 million gallons) per year read Production from the central well is at a rate of 95-114 liters (25-30 gallons) per minute or 50-60 million liters (13-16 million gallons) per year.</p>	<p>30-38</p>	<p>This reference has been added to the Chapter 3 reference list.</p>
<p>Page 3-144: Waste Management First Bullet. Should An RCRA read A RCRA?</p>	<p>30-28 cont'd</p>	<p>This reference has been added to the Chapter 3 reference list.</p>
<p>Page 3-145: Bullet 3 Lines 1 & 2. Should Title 30 of the Texas Administrative Code Section 336.1105 be placed in the Chapter 3 References?</p>	<p>30-39</p>	<p>This reference has been added to the Chapter 3 reference list.</p>
<p>Page 3-145: Paragraph 1 Line 3. The phrase an RCRA/TSCA should be a RCRA/TSCA. RCRA is usually pronounced Rickra or Reckra.</p>	<p>30-28 cont'd</p>	<p>This reference has been added to the Chapter 3 reference list.</p>

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page 3-145: Table 3-22 Note Line 1. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA.</p>	<p>30-28 cont'd</p>	<p>DOE acknowledges and appreciates the information provided by the commentor. Chapter 3, Section 3.9.3.1, of this <i>Mercury Storage EIS</i> has been revised, along with other applicable sections of the chapter, to reflect the latest information from the <i>Oak Ridge Reservation Annual Site Environmental Report for 2008</i> (DOE 2009b).</p>
<p>Page 3-147: Local Transportation Paragraph 1 Lines 6-8. TXDOT and NMDOT are not in the List of Acronyms and Abbreviations.</p>	<p>30-12 cont'd</p>	<p>Data on the average annual windspeed have been added to Chapter 3, Section 3.9.4.1. Data on the maximum windspeed were presented in the <i>Draft Mercury Storage EIS</i>.</p>
<p>Page 3-153: 3.9.3.1 Surface Water Paragraph 1 Line 3. The statement "To maintain a minimum flow equivalent to 26 million liters (7 million gallons) per day and to improve downstream water quality, raw water from the Clinch River has been added to the western portion of the open channel," is no longer accurate. According to the 2008 ASER, Annual Site Environmental Report 2008 Oak Ridge Reservation DOE/ORO-2296 September 2009, A request to modify the NPDES permit to allow the minimum flow measured at Station 17 to be reduced to 5 million gal/day was made and on December 30, 2008, TDEC modified the permit. The modified permit requires 5 million gal rather than 7 million gal minimum daily flow as measured at the Station 17 location. In addition to water conservation, this action offers the additional benefit of reducing Y-12's water cost by 272K annually. This information is found on Page 4-49 of the ASER.</p>	<p>30-40</p>	<p>DOE acknowledges and appreciates the information provided by the commentor. Chapter 3, Section 3.9.3.1, of this <i>Mercury Storage EIS</i> has been revised, along with other applicable sections of the chapter, to reflect the latest information from the <i>Oak Ridge Reservation Annual Site Environmental Report for 2008</i> (DOE 2009b).</p>
<p>Page 3-155: For comparative purposes it might be useful to include some discussion about average and maximum wind velocity as was done for the other sites discussed.</p>	<p>30-41</p>	<p>The text was changed to indicate that, while fishing is not permitted within the Oak Ridge Reservation, it is permitted within the Clinch River adjacent to the site, both above and below the Melton Hill Dam.</p>
<p>Page 3-156: 3.9.5.3 Aquatic Resources Paragraph 1. The majority of the Clinch River and Melton Hill Reservoir are not a part of the ORR. Although fishing may not be allowed on the ORR per se, the majority of the Clinch River and Melton Hill Reservoir are open to sport fishing.</p>	<p>30-42</p>	<p>As suggested by the commentor, Chapter 3, Table 3-23, has been corrected.</p>
<p>Page 3-157: Table 3-23. First Entry, Spreading false-foxglove <i>Aureolaria patula</i>-Threatened-This plant is listed as of Special Concern by the State but not Threatened. Second Entry, Appalachian bugbane <i>Curiesmifuga rubifolia</i>-Threatened. Scientific name should be <i>Cimicifuga rubifolia</i>. Thirteenth Entry <i>Spottin chub</i> <i>Cyprinella monacha</i>-Threatened-Threatened. The scientific name is now <i>Erimonax monachus</i>.</p>	<p>30-43</p>	<p>Chapter 3, Section 3.9.7.3, has been updated to reflect that the new steam plant will be completed in September 2010.</p>
<p>Page 3-159: Fuel Paragraph 1. The information on the fuel usage for the Y-12 Steam Plant should be updated to reflect that a new steam plant, non-coal burning is currently being built and should be operational sometime in the spring of 2010. See http://www.knoxnews.com/news2009mar16y-12s-new-steam-plant-to-cut-costs-emissions-for-example.</p>	<p>30-44</p>	<p></p>

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>30-45</p> <p>Page 3-160: Paragraph 1 Lines 3-4. Regarding "The primary use of the raw water is to maintain a minimum flow of 26.5 million liters 7 million gallons per day in the East Fork Poplar Creek," please see comment Page 3-145. Paragraph 1 Line 3. Also some mention might be made here of the upgrade to the water distribution system at Y-12 currently being done using Stimulus monies.</p>	<p>30-45</p> <p>DOE acknowledges the commentor's statement and suggestion. While the upgrade of the Y-12 water distribution system and source of funding is certainly important, the information is not directly relevant to the analysis of the No Action Alternative and reasonable alternatives for constructing or modifying and operating a DOE mercury storage facility(ies), as analyzed in this <i>Mercury Storage EIS</i>.</p>
<p>30-28 cont'd</p> <p>Page 3-160: Paragraph 4 Line 4. See Page 3-145, Paragraph 1 Line 3 comment for an RCRA.</p>	
<p>30-12 cont'd</p> <p>Page 3-160: Paragraph 4 Line 6. TCA is not in the List of Acronyms and Abbreviations. Page 3-163: Local Transportation Paragraph 1 Line 10. TTD is not in the List of Acronyms and Abbreviations.</p>	
<p>30-46</p> <p>Page 3-163: Paragraph 2 Line 6. COK is not in the List of Acronyms and Abbreviations.</p>	<p>30-46</p> <p>Please note that DOE has an electronic copy of all references cited in this <i>Final Mercury Storage EIS</i> in its administrative record; thus, whether a website's address changes or content is removed from a given website, a reader can request a copy of any given reference. Because content on the Internet is transitory, constantly tracking and revising links would be unproductive.</p>
<p>30-47</p> <p>Page 3-167: Reference BCPD 2007. The active link for this document is currently http://www.co.benton.wa.us/documents.aspx.</p> <p>Page 3-167: Reference CEQ 1997. The active link for this document is currently http://ceq.hss.doe.gov/ceq_regulationsguidance.html.</p>	<p>30-47</p> <p>The title of this reference has been revised.</p>
<p>30-47</p> <p>Page 3-168: Reference DOC 2008. The link in this reference takes you to a page that indicates it contains data for Annual Estimates of Housing Units for Counties April 1, 2000 to July 1, 2007. The reference indicates that it is data through July 1, 2008.</p>	
<p>30-46 cont'd</p> <p>Page 3-168: Reference DOC 2009a. The current link for this reference is http://hdm4.did.census.gov/hdm4. However, the link to the map3 also takes you here.</p>	
<p>30-46 cont'd</p> <p>Page 3-170: Reference DOE 2005d. The link in this reference does not work.</p> <p>Page 3-170: Reference DOE 2005e. The link in this reference does not work.</p>	
<p>30-46 cont'd</p> <p>Page 3-171: Reference DOE 2008f. The link in this reference does not work however http://www.ornl.gov/sci/env_rpt will get you there.</p>	
<p>30-46 cont'd</p> <p>Page 3-171: Reference DOE 2009d. The link in this reference does not work however http://www.hanford.gov will likely get the intended information.</p>	
<p>30-46 cont'd</p> <p>Page 3-172: Reference DOI 2009. The link in this reference does not work.</p>	

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page 3-173: Reference EPA 2006. The link in this reference does not work. Page 3-173: Reference EPA 2009a. The link in this reference does not work. Page 3-173: Reference EPA 2009c. The link in this reference does not work. Page 3-173: Reference EPA 2009g. The link in this reference does not work. Page 3-173: Reference EPA 2009h. The link in this reference does not work. Page 3-174: Reference Hartman et al. 2009. The link in this reference does not work.</p>	<p>30-46 cont'd</p>	
<p>Page 3-175: Reference IFG 2009. Vertebrates should be Vertebrates. Page 3-176: Reference Marceau 1998. The link in this reference does not work. Page 3-176: Reference NCDC 2009a-g. None of the links in these references work.</p>	<p>30-37 cont'd</p>	
<p>Page 3-182: Reference USGS 2009d. The link in this reference does not work. Page 3-184: Reference WSRC 2006c. The link in this reference does not work. You are redirected to SRS Home Page. Page 3-184: Reference WSRC 2007c. The link in this reference does not work. You are redirected to SRS Home Page. Page 3-184: Reference WSRC 2007d. The link in this reference does not work. You are redirected to SRS Home Page. Page 3-184: Reference WSRC 2007e. The link in this reference does not work. You are redirected to SRS Home Page.</p>	<p>30-46 cont'd</p>	
<p>Page 4-2: Paragraph 1 Line 8. The EPA 1997 citation should either cite a specific document i.e., 1997 a-e or all of the 1997 documents. Page 4-4: Paragraph 2 Line 4. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA-. Page 4-4: Paragraph 4 Line 6. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA-. Page 4-5: Paragraph 2 Line 5. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA-.</p>	<p>30-48</p>	<p>This citation has been corrected.</p>
	<p>30-28 cont'd</p>	

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page 4-9: Table 4-2 Row 3. NR is not in the List of Acronyms and Abbreviations.</p> <p>Page 4-10: Paragraph 1 Line 2. CDC is not in the List of Acronyms and Abbreviations.</p>	<p style="text-align: right;">30-23 <i>cont'd</i></p> <p style="text-align: right;">30-12 <i>cont'd</i></p>
<p>Page 4-26: Footnote 13 Lines 3-4. It might be small enough that when multiplied by the FL-III frequencies mentioned above, it would drop those frequencies into a lower frequency range should read either into a lower frequency range or into the a lower frequency range.</p> <p>Page 4-32: Paragraph 5 Lines 3-5. The line, "As the facility would be designed and operated to prevent any spills from reaching the ground there would be no impact on groundwater from routine operations," should be removed from this paragraph.</p> <p>Page 4-35: Terrestrial Resources Paragraph 1. The numbers given here for the land area disturbed for the actual building and construction do not match the numbers given in Paragraph 2 Page 4-30 (i.e., total disturbance 3.1 hectares [7.5 acres] footprint of building 1.6 hectares [3.9 acres]).</p> <p>Page 4-39: Paragraph 4 Lines 7-9. "Therefore the concentration to which any resident individual could be exposed negligible and the corresponding risk would be negligible", should be changed to "Therefore the concentration to which any resident individual could be exposed would be negligible and the corresponding risk would be negligible" for clarity.</p>	<p style="text-align: right;">30-49</p> <p style="text-align: right;">30-50</p> <p style="text-align: right;">30-51</p> <p style="text-align: right;">30-52</p> <p style="text-align: right;">30-28 <i>cont'd</i></p>
<p>Page 4-67: Paragraph 5 Line 11. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA.</p> <p>Page 4-83: Historic Resources Paragraph 1 Lines 4-5. The only Cultural Resources Plan for Idaho in the Chapter 4 References is listed as DOE 2009a. If this is a separate document it should be cited here and included in the Chapter 4 References.</p> <p>Page 4-97: Prehistoric Resources Paragraph 1 Lines 2-3. The cultural resource assessment mentioned here should be cited appropriately and placed in the Chapter 4 References.</p> <p>Page 4-97: American Indian Resources Paragraph 1 Lines 4-5. See comment for Page 4-97, Prehistoric Resources Paragraph 1 Lines 2-3.</p>	<p style="text-align: right;">30-53</p> <p style="text-align: right;">30-20 <i>cont'd</i></p>

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page 4-111: American Indian Resources Paragraph 1 Lines 3-6. One or the other of these last two sentences should be removed.	30-54	One of the sentences has been deleted.
Page 4-118: Paragraph 1 Line 1. The word consequences should be consequences.	30-55 <i>cont'd</i>	DOE has corrected the typographical error cited by the commentor by revising this sentence as suggested in Chapter 4, Section 4.13.3.
Page 4-151: Paragraph 1 Lines 1-2. "Under the No Action Alternative environmental resources have already been committed to activities Y-12 and possibly at some existing source locations" should read "Under the No Action Alternative environmental resources have already been committed to activities at Y-12 and possibly at some existing source locations".	30-56	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Federal Register</i> is accessible at http://www.gpoaccess.gov/fr/index.html .
Page 4-154: Reference NADP 2005. Although the maps can be found at the http://nadp.sws.uiuc.edu/AMN site, the link does not take you to the maps.	30-57	The Fish and Wildlife Coordination Act first passed in 1934. The phrase "of 1934, as amended" has replaced "of 1958" in the heading in Chapter 5, Section 5.2.6, and the phrase "of 1934" was added to Table 5-1.
Page 5-1: Paragraph 1 Line 7. 74 FR 31723 is not listed in Table 5-1 or in the Chapter 5 References.	30-58 <i>cont'd</i>	For brevity, Chapter 5, Table 5-1, does not include the phrase "as amended" regarding acts, except in the case of the Solid Waste Disposal Act of 1965. In that case, the 1976 amendment changed the way people refer to the act.
Page 5-3: Table 5-1 Row 12. The Fish and Wildlife Coordination Act is included on page 5-13 Paragraph 4 as the Fish and Wildlife Coordination Act of 1958 and should also be included as such here.	30-59	The title of DOE Policy 450.2A has been corrected in the table and the text.
Page 5-3: Table 5-1 Row 19. The American Antiquities Act of 1906 is included on page 5-13 Paragraph 7 as American Antiquities Act of 1906 as amended and should also be included as such here.	30-60	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Code of Federal Regulations</i> is accessible at http://www.gpoaccess.gov/cfr/index.html .
Page 5-3: Table 5-1 Rows 20-22. Each of these three Acts are included on page 5-14 with as amended appended to the name of the Act.	30-58	
Page 5-3: Table 5-1 Row 29. ACHP is not in the List of Acronyms and Abbreviations.	30-23 <i>cont'd</i>	
Page 5-4: Table 5-1 Row 29. Identifying Implementing and Complying with Environment Safety and Health Requirements should be Identifying Implementing and Complying with Environment Safety and Health Requirements. See Paragraph 2 Line 1 page 5-19.	30-59	
Page 5-4: Table 5-1 Key Lines 2-4. DOL FR and U.S.C. are on in the List of Acronyms and Abbreviations.	30-23 <i>cont'd</i>	
Page 5-6: Paragraph 1 Lines 5-6. Title 40 of the Code of Federal Regulations CFR Parts 50 through 99 is not listed in Table 5-1 or in the Chapter 5 References.	30-60	

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page 5-7: Paragraph 2 Line 6. Title 40 of the CFR Parts 100-149 is not listed in Table 5-1 or in the Chapter 5 References.	30-60 <i>cont'd</i>
Page 5-8: Paragraph 1 Line 1. 415 U.S.C. 2601 et seq. should be #15 U.S.C. 2601 et seq.	30-10 <i>cont'd</i>
Page 5-10: Paragraph 2 Line 4. CESQG is not in the List of Acronyms and Abbreviations.	30-61
Page 5-10: Paragraph 3 Lines 3-9. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA-.	30-28 <i>cont'd</i>
Page 5-11: Table 5-2. HWM is not in the List of Acronyms and Abbreviations.	30-23 <i>cont'd</i>
Page 5-12: Paragraph 2 Line 8. 40 CFR 355 is not included in either Table 5-1 or in the Chapter 5 References.	30-60 <i>cont'd</i>
Page 5-14: Paragraph 2 Line 1. The Archaeological Resources Protection Act of 1979 as amended citation is given here as 16 U.S.C. 470 et seq; however, the correct citation for this Act is 16 U.S.C. 470aa-mm as given in Table 5-1 on page 5-3.	30-62
Page 5-14: Paragraph 3 Line 1. National Historic Preservation Act of 1996 should be National Historic Preservation Act of 1966.	30-10 <i>cont'd</i>
Page 5-14: Paragraph 3 Line 17. 64 FR 27043 is not listed in either Table 5-1 or the Chapter 5 References.	30-56 <i>cont'd</i>
Page 5-17: Paragraph 6 Line 6. 40 CFR 1500 through 1508 is not included in either Table 5-1 or the Chapter 5 References.	30-60 <i>cont'd</i>
Page 5-20: Table 5-3. Column widths of some of the columns need adjustment so that words are not split and completed on the next line.	30-63
Page 5-20: Table 5-3 Key Lines 1-2. HAD and NA are not in the List of Acronyms and Abbreviations.	30-23 <i>cont'd</i>
Page 5-20: Paragraph 1 Line 3. 10 CFR 40.27 is not included in Table 5-1 or in the Chapter 5 References.	30-60 <i>cont'd</i>
Page 5-22: Paragraph 4 Line 1. WAC 173-460 is not included in Table 5-1 or in the Chapter 5 References.	30-64
	30-61
	30-62
	30-63
	30-64

“CESQG” has been added to the “List of Acronyms and Abbreviations.”
 This citation has been changed as suggested.
 The column widths have been adjusted.
 The Chapter 5 reference list would be too cumbersome if it included all public documents; the *Washington Administrative Code* is accessible at <http://apps.leg.wa.gov/WAC/default.aspx>.

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page 5-22: Paragraph 6 Line 2. WAC 173-303 is not included in Table 5-1 or in the Chapter 5 References.	30-64 cont'd	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Nevada Revised Statutes</i> are accessible at http://www.leg.state.nv.us/law1.cfm .	30-65
Page 5-23: Paragraph 2 Line 2. WAC 173-220 and WAC 173-226 are not included in Table 5-1 or in the Chapter 5 References.	30-56 cont'd	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Nevada Administrative Code</i> is accessible at http://www.leg.state.nv.us/nac/CHAPTERS.HTML .	30-66
Page 5-23: Paragraph 5 Line 2. 69 FR 23733 is not included in Table 5-1 or in the Chapter 5 References.	30-65	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Nevada Revised Statutes</i> are accessible at http://www.leg.state.nv.us/law1.cfm , and the <i>Nevada Administrative Code</i> is accessible at http://www.leg.state.nv.us/nac/CHAPTERS.HTML .	30-67
Page 5-23: Paragraph 7 Lines 3-4. NRS Section 459.3818 is not included in Table 5-1 or in the Chapter 5 References.	30-66	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Nevada Administrative Code</i> is accessible at http://www.leg.state.nv.us/nac/CHAPTERS.HTML .	30-68
Page 5-24: Paragraph 1 Line 1. NAC Section 459.9533 is not included in Table 5-1 or in the Chapter 5 References.	30-67	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Nevada Revised Statutes</i> are accessible at http://www.leg.state.nv.us/law1.cfm , and the <i>Nevada Administrative Code</i> is accessible at http://www.leg.state.nv.us/nac/CHAPTERS.HTML .	30-69
Page 5-24: The following are not included in Table 5-1 or in the Chapter 5 References. Paragraph 2 NRS 459.380-459.3874; Paragraph 4 NAC 459.95321; Paragraph 5 NAC 459.95323; NAC 459.953348; NAC 459.9549; 3rd Last Paragraph NAC 445B.001-445B.395; 2nd Last Paragraph NAC 444.842-8482; Last Paragraph NAC 8458.	30-68	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Nevada Administrative Code</i> is accessible at http://www.leg.state.nv.us/nac/CHAPTERS.HTML .	30-70
Page 5-25: The following are not included in Table 5-1 or in the Chapter 5 References. Paragraph 1 NAC 459.95348; Paragraph 2 NAC 459.952459.9542; Paragraph 3 NAC 445A.226445A.348; Paragraph 5 IDAPA 58.01.01; Paragraph 6 40 CFR 52; Paragraph 8 IDAPA 58.01.05.	30-69	The Chapter 5 reference list would be too cumbersome if it included all public documents. The <i>Nevada Administrative Code</i> is accessible at http://www.leg.state.nv.us/nac/CHAPTERS.HTML ; Idaho Administrative Procedures Act rules are accessible at http://adm.idaho.gov/adminrules/agyindex.htm ; and the <i>Code of Federal Regulations</i> is accessible at http://www.gpoaccess.gov/cfr/index.html .	30-70
Page 5-26: Section 5.3.5 Kansas City Plant Missouri Paragraph 2 Lines 2-310. CSR 10-6 is not included in Table 5-1 or in the Chapter 5 References.	30-70	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Missouri Code of State Regulations</i> is accessible at http://www.sos.mo.gov/adrules/csr/csr.asp .	30-70
Page 5-27: The following are not included in Table 5-1 or in the Chapter 5 References - Paragraph 1. 10 CSR 25-7 Paragraph 4 10 CSR 20-6.200 Paragraph 8 SCR.61-622nd Last Paragraph SCR.61-79.124	30-10 cont'd	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Missouri Code of State Regulations</i> is accessible at http://www.sos.mo.gov/adrules/csr/csr.asp , and the <i>South Carolina Code of Regulations</i> is accessible at http://www.scstatehouse.gov/coderegs/statmast.htm .	30-16 cont'd
Page 5-27: Last Paragraph Line 2. Should SCR 61-79 be SCR.61-62.	30-16 cont'd	The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>Missouri Code of State Regulations</i> is accessible at http://www.sos.mo.gov/adrules/csr/csr.asp , and the <i>South Carolina Code of Regulations</i> is accessible at http://www.scstatehouse.gov/coderegs/statmast.htm .	30-16 cont'd

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page 5-28: The following are not included in Table 5-1 or in the Chapter 5 References - Paragraph 3 SCR.61-9.122; Paragraph 6 30 TAC Chapter 101; Paragraph 8 30 TAC Chapter 305.</p> <p>Page 5-28: 5.3.7 Waste Control Specialists LLC Texas Paragraph 1 Line 4. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA.</p> <p>Page 5-31: References Reference 2. DOE 2002 is not cited anywhere in Chapter 5.</p> <p>Page 5-31: References Reference 3. State Management of Mercury (Hg) should read Safe Management of Mercury (Hg).</p> <p>Page 6-12: Record of Decision Definition. Should Prepared in accordance with Title 40 of the Code of Federal Regulations, Section 1505.2, the Record of Decision identifies the alternatives considered in reaching the decision, the environmentally preferable alternative, factors balanced by the agency in making the decision, whether all practicable means to avoid or minimize environmental harm have been adopted, and if not, why they have not, "read Prepared in accordance with Title 40 of the Code of Federal Regulations Section 1505.2, the Record of Decision identifies the alternatives considered in reaching the decision, the environmentally preferable alternative, factors balanced by the agency in making the decision, whether all practicable means to avoid or minimize environmental harm have been adopted, and if not, why they have were not"?</p> <p>Page A-i: Table of Contents First two Entries. See comment Page xvi Appendix A.</p> <p>Page B-23: References. The following web links do not work-USGS 2009a, USGS 2009b, USGS 2009c, Wald et al. 1999. Using the first part of the links for the USGS hitearthquake.usgs.gov takes you to the necessary home page to find the data. The Wald et al. link does not work at all. Part of the problem is that http hasn't been included and also usgu should probably be usgs.</p> <p>Page C-1: Figure C-1 Key. NPT MAX and MIN are not in the List of Acronyms and Abbreviations.</p> <p>Page C-6: Last Paragraph Line 1. See Page 3-145 Paragraph 1 Line 3 comment for an RCRA.</p> <p>Page C-8: Column 4 Heading. HWAD is not in the List of Acronyms and Abbreviations.</p>	<p>30-71</p> <p>30-28 cont'd</p> <p>30-72</p> <p>30-10 cont'd</p> <p>30-73</p> <p>30-4 cont'd</p> <p>30-74</p> <p>30-23 cont'd</p> <p>30-28 cont'd</p> <p>30-23 cont'd</p>	<p>The Chapter 5 reference list would be too cumbersome if it included all public documents; the <i>South Carolina Code of Regulations</i> is accessible at http://www.sos.statehouse.gov/coderegs/statmast.htm, and the <i>Texas Administrative Code</i> is accessible at http://www.sos.state.tx.us/tac/.</p> <p>This reference has been deleted.</p> <p>The definition has been revised to be consistent with the <i>Glossary of Terms Used in DOE NEPA Documents</i>.</p> <p>The typographical errors in the given link for the Wald et al. 1999 reference have been corrected. However, please note that DOE has an electronic copy of all references cited in this <i>Final Mercury Storage EIS</i> in its administrative record; thus, whether a website's address changes or content is removed from a given website, a reader can request a copy of any given reference. Because content on the Internet is transitory, constantly tracking and revising links would be unproductive.</p>
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**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page D-i: The Units of Measure does not have a page number. Also see comment Page xvii Appendix D.	30-6 <i>cont'd</i>
Page D-2: Table D-1 Key. Bethlehem Apparatus and D.F. Goldsmith are not in the List of Acronyms and Abbreviations.	30-23 <i>cont'd</i>
Page D-3: Second Bullet Line 2. NIMA is not in the List of Acronyms and Abbreviations.	30-12 <i>cont'd</i>
Page D-5: Third Bullet Line 2. CCPS is not in the List of Acronyms and Abbreviations.	30-75
Page D-5: Fourth Bullet Line 2. LOPA is not in the List of Acronyms and Abbreviations.	30-76
Page D-8: Paragraph 2 Line 2. UKHSE is not in the List of Acronyms and Abbreviations.	30-12 <i>cont'd</i>
Page D-9: Paragraph 2 Lines 2-4. According to the citation for Table D-50 the NIST study mentioned here is Huber et al. 2006. It should be cited as such here.	30-21 <i>cont'd</i>
Page D-11: Last Paragraph Line 6. The OSHA reference here cited as OSHA 2009 is not in the Appendix D References unless the OSHA reference included there as OSHA 2007 is the same reference.	30-48 <i>cont'd</i>
Page D-12: Paragraph 5 Lines 4-8. Was this discussion meant to speak to the conversion of inorganic mercury to organic mercury (i.e., methylmercury)?	30-76
Page D-14: Table D-3 Key Line 3. SV is not in the List of Acronyms and Abbreviations.	30-23 <i>cont'd</i>
Page D-17: Sixth Bullet Lines 1-2. Should "...capable of holding the contents 10 percent (approximately five) of the flasks in the pallet" be "capable of holding the contents of 10 percent (approximately five) of the flasks in the pallet."	30-10 <i>cont'd</i>
Page D-21: Paragraph 3 Line 8. Should "...that are used to store mercury or commercial sites are designed and built to the same standards," be "that are used to store mercury at commercial sites are designed and built to the same standards."	30-32 <i>cont'd</i>
Page D-22: D.2.4.5 Forklift Fire Paragraph 1 Lines 3-4. Should "approximately 10-by 25-centimeter 4-by 10-inch wetted floor area on load" be "approximately 10-by 25-centimeter [4-by 10-inch] wetted floor area on load"?	30-10 <i>cont'd</i>

“LOPA” has been added to the “List of Acronyms and Abbreviations.”

The statement in the referenced paragraph of Appendix D, Section D.1.1.2.6, of this *Mercury Storage EIS*, "...the conversion of inorganic mercury into elemental mercury is very small," has been replaced with "...the conversion of inorganic mercury into methylmercury is very small."

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page D-22: Footnote 2 Line 3. NYSERDA is not in the List of Acronyms and Abbreviations.	30-12 cont'd	
Page D-25: Paragraph 3 Line 3. DOE 1999E-5.5 2001A: D-82, D-83 should be DOE 1999E-5.5 2001A a D-82, D-83.	30-10 cont'd	
Page D-25: Paragraph 5 Line 8. "F5 tornadoes have only occurred in the county(ies) surround KCP" should be "F5 tornadoes have only occurred in the county(ies) surrounding KCP."	30-23 cont'd	
Page D-26: Table D-6 Key. The abbreviation mph is not in the List of Acronyms and Abbreviations.	30-77	Because these <i>Code of Federal Regulations</i> sections are referred to within quoted material, the citation for the document from which the material was taken is sufficient.
Page D-26: Paragraph 4 Lines 1-7. 740 CFR 270.14b11 is not in the Appendix D References. 40 CFR 264.175b4 is not in the Appendix D References.	30-32 cont'd	Use of mathematical symbols is limited to equations or discussions regarding equations; all are defined within that context. This limited usage does not warrant inclusion in the EIS-wide "List of Acronyms and Abbreviations."
Page D-33: Second Bullet Lines 2-3. This total would include 1,206 metric tons (1,330 tons) from Y-12 11,000 tons should read. This total would include 1,206 metric tons (1,330 tons) from Y-12 11,000 tons.	30-12 cont'd	The values have been revised as indicated in Appendix D, Section D.4.1.2, of this <i>Mercury Storage EIS</i> .
Page D-37: Table D-10 Source. FMCSA and FRA are not in the List of Acronyms and Abbreviations.	30-78	The concentration that is well below EPA's reference concentration should be 3.6×10^{-6} milligrams per cubic meter. This correction has been made, and the acronym for reference concentration has been changed from "RFC" to "RfC" in Appendix D, Section D.4.1.2, of this <i>Mercury Storage EIS</i> .
Page D-38: Paragraph 1 Line 5. 923 is not in the List of Acronyms and Abbreviations.	30-23 cont'd	The column width has been adjusted.
Page D-46: Table D-18 Key Line 1. STEL is not in the List of Acronyms and Abbreviations.	30-79	
Page D-51: 3rd Last Paragraph Lines 10-11. Should EPA's RfC of 3.0, 10-6 mg/m ³ be EPA's RfC of 3.0, 10-6 =4 mg/m ³ .	30-80	
Page D-51: 2nd Last Paragraph Line 33. 60 10-4 mg/m ³ is not well below EPAs RfC of 3.00 10-4 mgm ³ .RfC should be RfC.	30-23 cont'd	
Page D-52: Table D-21 Key. K is not in the Acronyms and Abbreviations.	30-81	
Page D-56: Table D-25 Column I. NL-RWMC Column width needs to be adjusted to avoid wrapping of exponent.		

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page D-60: Paragraph 1 Lines 3-4. However, this assessment should be tempered by nothing that there is a large range of uncertainty should read; However, this assessment should be tempered by nothing that there is a large range of uncertainty.</p>	<p>30-10 cont'd</p>	<p>30-82</p>	<p>“Less” has been changed to “more” in the cited paragraph of Appendix D, Section D.4.5, of this <i>Mercury Storage EIS</i>.</p>
<p>Page D-60: Table D-27 Key. L, N, and U are not in the List of Acronyms and Abbreviations.</p>	<p>30-23 cont'd</p>	<p>30-83</p>	<p>The error cited by the commentor has been corrected in Appendix D, Section D.4.5, of this <i>Mercury Storage EIS</i>.</p>
<p>Page D-62: Last Paragraph Lines 1-3. Should “For truck or railcar scenarios with pallet fires a specific individual could not be exposed to concentrations that are above SL-III if he or she lives less than 2,300 meters (7,500 feet) from a crash 2,300 meters is taken as conservative for truck crashes” be “For truck or railcar scenarios with pallet fires a specific individual could not be exposed to concentrations that are above SL-III if he or she lives less more than 2,300 meters (7,500 feet) from a crash 2,300 meters is taken as conservative for truck crashes.”</p>	<p>30-82</p>	<p>30-82</p>	<p>“Less” has been changed to “more” in the cited paragraph of Appendix D, Section D.4.5, of this <i>Mercury Storage EIS</i>.</p>
<p>Page D-62: Last Paragraph Line 4. “Should above SL-II” be “above SL-III”?</p>	<p>30-83</p>	<p>30-83</p>	<p>The error cited by the commentor has been corrected in Appendix D, Section D.4.7, of this <i>Mercury Storage EIS</i>.</p>
<p>Page D-64: Last Paragraph Lines 2-3. Should “Concentrations in the SL-III range could occur out to about 34 kilometers (21 miles)” be “Concentrations in the SL-III range could occur out to about 34 kilometers (21 miles)”?</p>	<p>30-84</p>	<p>30-84</p>	<p>The error cited by the commentor has been corrected in Appendix D, Section D.4.7, of this <i>Mercury Storage EIS</i>.</p>
<p>Page D-69: D.5.2.2 TRVs for Terrestrial Animals Paragraph 1 Line 3 mg/kg BW/day is in the Units of Measure for Appendix D but is not in the List of Acronyms and Abbreviations.</p>	<p>30-85</p>	<p>30-85</p>	<p>Listing in the Appendix D “Units of Measure” is sufficient.</p>
<p>Page D-71: Paragraph 1 Line 3. NOAA ER-L is not in the List of Acronyms and Abbreviations.</p>	<p>30-86</p>	<p>30-86</p>	<p>“NOAA ER-L” has been added to the “List of Acronyms and Abbreviations.”</p>
<p>Page D-72: Table D-33 Column Headings. Column 3, SP is not in the List of Acronyms and Abbreviations. Column 4, Ip is not in the List of Acronyms and Abbreviations. Column 5, BAF inv is not in the List of Acronyms and Abbreviations. This column width also needs adjustment in order to avoid wrapping of text. Column 6, BCF is not in the List of Acronyms and Abbreviations. Column 7, Ia is not in the List of Acronyms and Abbreviations. Column 8, BAFmamm is not in the List of Acronyms and Abbreviations. Column 9, is not in the List of Acronyms and Abbreviations. Column 10, lw is not in the List of Acronyms and Abbreviations. Column 12, UFF is not in the List of Acronyms and Abbreviations.</p>	<p>30-87</p>	<p>30-87</p>	<p>Per the editorial convention used in preparing this EIS, tables and figures are standalone. Thus, whatever acronyms and abbreviations are listed in a figure or table legend or key do not need to be listed in the overall “List of Acronyms and Abbreviations.”</p> <p>There is no text wrapping in the printed version; the wrapping occurred during conversion to the pdf. In the case of the text wrapping in the fifth column header in the pdf, a reader is unlikely to be confused or have difficulty understanding the meaning because the superscript does not run into additional text.</p>

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

30-88	<p>Page D-74: Key to Equation 5-1. The following are not in the List of Acronyms and Abbreviations Csoil, EDsoil, lalsoil. See D-33 where the acronym abbreviation is used for this ST.</p> <p>Page D-75: Key to Equation 5-21. Rshrew is not in the List of Acronyms and Abbreviations.</p> <p>Page D-75-D-76: Key to Equation 5-3. Csed EDsed and lsed are not in the List of Acronyms and Abbreviations.</p> <p>Page D-76: Key to Equation 5-4. Csw EDsw and lsw are not in the List of Acronyms and Abbreviations.</p>	<p>30-88 Use of mathematical symbols is limited to equations or discussions regarding equations; all are defined within that context. This limited usage does not warrant inclusion in the EIS-wide "List of Acronyms and Abbreviations."</p> <p>The specified acronyms are not used on Appendix D, page D-33, of the <i>Draft Mercury Storage EIS</i>.</p>
30-78 cont'd	<p>Page D-79: Last Paragraph Lines 7-10. "Similarly, sediment-dwelling biota could be exposed to concentrations above SL-III from between 100 and 200 meters (330 and 6,600 feet) to just over 500 meters (1,640 feet) downwind and above SL-IV from just under 200 meters (660 feet) to just over 500 meters (1,640 feet) downwind..." is confusing. From the Table it appears that the SL-III level for Sediment-dwelling biota extends out beyond 700 meters and the S-IV level for the Sediment-dwelling biota extends just beyond 500 meters.</p>	<p>30-89 DOE has revised the sentence in question for clarity in Appendix D, Section D.5.4.3.1, of this <i>Mercury Storage EIS</i>, as follows:</p> <p>Similarly, sediment-dwelling biota could be exposed to concentrations above SL [Severity Level]-III from between 100 and 200 meters (330 and 660 feet) to between 700 and 1,000 meters (2,300 and 3,300 feet) downwind, and above SL-IV from just under 200 meters (660 feet) to just over 500 meters (1,640 feet) downwind.</p>
30-89	<p>Page D-81: Bullet 3 Line 1. "There are four ecological receptors that could potentially be exposed to SL-II concentrations" should read "There are four five ecological receptors that could potentially be exposed to SL-II concentrations."</p>	<p>30-90 The error cited by the commentor has been corrected in Appendix D, Section D.5.4.3.1, of this <i>Mercury Storage EIS</i>.</p>
30-90	<p>Page D-87: Bullet 3 Line 5. The comment in addition to the areas in the previous bullet does not make sense. The previous bullet is, "The truck results apply to both Scenarios 1 and 2."</p>	<p>30-91 The phrase in question in Appendix D, Section D.5.4.3.1, Bullet 3, has been revised to read: "in addition to the areas with deposited mercury in the SL [Severity Level]-IV range." The phrase in Bullet 4 has been revised to read: "in addition to the areas in the previous bullet."</p>
30-91	<p>Page D-87: Bullet 4 Line 5. Regarding "in addition to the areas in the previous two bullets" see comment Page D-87: Bullet 3 Line 5 above.</p>	<p>30-92 Appendix D, Section D.4.7, of this <i>Mercury Storage EIS</i> provides an explanation for the use of Atmospheric Stability Classes D and F but not A in the cited instance.</p>
30-92	<p>Page D-90: Is there a reason why Intentionally Initiated Railcar Spill with Fire information was not provided for Atmospheric Stability Class A instances?</p>	
30-21 cont'd	<p>Page D-96: Paragraph 2 Line 6. Should the SAIC 1994 citation be placed here with the mention of the SACRUNCH Model?</p> <p>Page D-96: 2nd Last Paragraph Line 2. Should McMahon and Dennison be cited here and the reference placed in the Appendix D References?</p>	

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page D-97: Paragraph 3 Line 4. An EPA 2002d reference is not included in the Appendix D References.	30-93	The text using citation EPA 2002d has been replaced and this citation is no longer used.
Page D-99: Equation 7-1 Key. Should Re A D p957Tp Tp 957 and u be placed in the List of Acronyms and Abbreviations?	30-78 cont'd	This citation does not belong here; thus, it has not been added.
Page D-100: Equation 7-2 Key. Should kg, Pvp, R, M, Jkg, and Nsh be placed in the List of Acronyms and Abbreviations?	30-95	This acronym has been removed.
Page D-102: Table D-50 Key. Should MPa be placed in the List of Acronyms and Abbreviations?	30-23 cont'd	
Page D-103: Equation 7-4 Key. Should b, 963, 1256, and pL be placed in the List of Acronyms and Abbreviations?	30-78 cont'd	
Page D-104: Equation 7-7 Key. Should C, h, W, 945, and Uh be placed in the List of Acronyms and Abbreviations?	30-23 cont'd	
Page D-105: Table D-51 Key Line 2. sf is not in the List of Acronyms and Abbreviations.	30-78 cont'd	
Page D-108: Equation 7-13 Key. Should Q, 963y, 963z, 957s and Fx, y, 0 be placed in the List of Acronyms and Abbreviations?	30-94	
Page D-108: 2nd Last Paragraph Line 2. Briggs 1984 is included in the Appendix D References and should be cited here.	30-21 cont'd	
Page D-110: Last Paragraph Line 1-2. On Page D-96, it is indicated that this information was originally from McMahon and Denisson; should this not be also mentioned here? Also, see comment Page D-96 2nd Last Paragraph Line 2.	30-78 cont'd	
Page D-117: Equation 7-18 Key. Should dHedt, MBurned, THR, and EFF be added to the List of Acronyms and Abbreviations?	30-95	
Page D-118: Equation 7-19 Key. Should VP be added to the List of Acronyms and Abbreviations?	30-48 cont'd	
Page D-118: 2nd Last Paragraph Line 1. RR is not in the List of Acronyms and Abbreviations.		
Page D-118: Last Paragraph Line 1. U.S. Army 1980 should be U.S. Army 1980 as it is included in the Appendix D References.		

**Commentor No. : 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

Page D-119: Equation 7-20 Key. Should 947 s, r, pa, Ta, and Cp be placed in the List of Acronyms and Abbreviations?	30-78 <i>cont'd</i>	
Page D-120: Equation 7-27 Key. Should P be included in the List of Acronyms and Abbreviations? Hanna, Briggs, and Hosker 2002 is not in the Appendix D References.	30-96	Use of mathematical symbols is limited to equations or discussions regarding equations; all are defined within that context. This limited usage does not warrant inclusion in the EIS-wide "List of Acronyms and Abbreviations."
Page D-121: Table D-61 Key. Cal, lbs, and min are not in the List of Acronyms and Abbreviations.	30-23 <i>cont'd</i>	This citation has been corrected.
Page D-122: Equation 7-29 Key. Should be placed in the List of Acronyms and Abbreviations.	30-78 <i>cont'd</i>	While the EPA 2001 reference was not cited in the draft EIS, it is cited in the final. Thus, it remains in the reference list. The EPA 2002c reference has been deleted.
Page D-122: Equations 7-30, 7-31, 7-32. Should V _f , M _f , and M _{OMf} be included in the List of Acronyms and Abbreviations?	30-10 <i>cont'd</i>	The source citation of Appendix D, Table D-19, was corrected to become EPA 2009b, so this reference remains.
Page D-124: Paragraph 1 Line 1. Should increase estimates of ground-level concentrations be increased estimates of ground-level concentrations?	30-72 <i>cont'd</i>	
Page D-126: DOE 2002b. This document is not cited in Appendix D.	30-10 <i>cont'd</i>	
Page D-126: Engineering Toolbox 2009a Hyperlink. The hyperlink given http://www.engineeringtoolbox.com/air-properties-d_156.html should be http://www.engineeringtoolbox.com/air-properties-d_156.html .		
Page D-126: Engineering Toolbox 2009b Hyperlink. The hyperlink given http://www.engineeringtoolbox.com/mercury-d_1002.html should be http://www.engineeringtoolbox.com/mercury-d_1002.html .		
Page D-127: EPA 2001. This document is not cited in Appendix D. Page D-127. EPA 2002c. This document is not cited in Appendix D.	30-97	
Page D-127: EPA 2009b. This document is not cited in Appendix D.	30-98	
Page D-128: FMCSA 2007. The hyperlink http://pai.fmcsa.dot.gov/CarrierResearchResults PDF-s2005LargeTruckCrashFactsOverview.pdf should be http://pai.fmcsa.dot.gov/CarrierResearchResults PDF-s2005LargeTruckCrashFactsOverview.pdf.	30-10 <i>cont'd</i>	
Page D-129: NCDC 2009. The hyperlink does not work but the data may possibly be reached via http://www.ncdc.noaa.gov/climate/severeweather/extremes.html .	30-46 <i>cont'd</i>	

**Commentor No. 30 (cont'd): John A. Wojtowicz
Tennessee Department of Environment and Conservation, DOE-Oversight**

<p>Page D-130: NRC 1987. The link http://td.sandia.gov/nrcdocs.htm does not work; however, the information may be accessed via http://www.nrc.gov/reading-rm/doc-collections/nrcscontractr4829.</p>	<p>30-99</p>	<p>Per the commentor's suggestion, the scientific name of salt rattlesnake has been corrected in Appendix E, Table E-1.</p>
<p>Page D-131: 49 CFR 172.101. This Regulation is not cited in Appendix D.</p>	<p>30-100</p>	<p>Per the commentor's suggestion, the scientific name of the Lahontan cutthroat trout has been corrected in Appendix E, Table E-1.</p>
<p>Page E-1: Salt rattlesnake. Should be <i>Sphaerophis salsula</i>.</p>	<p>30-101</p>	<p>Per the commentor's suggestion, the scientific name of the spadefoot toad has been corrected in Appendix E, Table E-1.</p>
<p>Page E-2: Lahontan cutthroat trout. Should be <i>Oncorhynchus clarkii henshawi</i>.</p>	<p>30-102</p>	<p>Per the commentor's suggestion, the scientific name of the southern prairie lizard has been corrected in Appendix E, Table E-1.</p>
<p>Page E-3: Southern prairie lizard. Should be <i>Sceloporus undulatus consobrinus</i>.</p>	<p>30-103</p>	<p>Per the commentor's suggestion, the scientific name of the western yellow-bellied racer has been corrected in Appendix E, Table E-1.</p>
<p>Page E-3: Western yellow-bellied racer. Should be <i>Coluber mormon</i>.</p>	<p>30-104</p>	<p>Per the commentor's suggestion, the scientific name of the common crow has been corrected in Appendix E, Table E-1.</p>
<p>Page E-3: Common crow. Should be <i>Corvus brachyrhynchos</i>.</p>	<p>30-105</p>	<p>Per the commentor's suggestion, the scientific name of the opossum has been corrected in Appendix E, Table E-1.</p>
<p>Page E-4: Opossum. Should be <i>Didelphis virginiana</i>.</p>	<p>30-106</p>	<p>Per the commentor's suggestion, the scientific name of the Rocky Mountain elk has been corrected in Appendix E, Table E-1.</p>
<p>Page E-4: Rocky Mountain Elk. Should be <i>Cervus elaphus</i>.</p>		

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Commentor No. 31: Bob Perry, Director, Office of Environmental Programs
South Carolina Department of Natural Resources



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March 29, 2010

Mr. David Levenstein,
Document Manager
Office of Environmental Compliance (EM-41)
US Department of Energy
Post Office Box 2612
Germantown, MD 20874

John E. Frampton
Director
Robert D. Perry
Director, Office of
Environmental Programs

REFERENCE: Draft Long-Term Management and Storage of Elemental Mercury
Environmental Impact Statement (DOE/EIS-0423D)

Dear Mr. Levenstein,

Personnel of the South Carolina Department of Natural Resources (DNR) have reviewed the Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (Mercury Storage EIS) and offer the following comments:

The Department of Energy (DOE) is analyzing the storage of up to 10,000 metric tons (11,000 tons) of elemental mercury in a facility(ies) constructed and operated in accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (74 FR 31723). The Mercury Storage EIS analyzes the potential environmental, human health, and socioeconomic impacts of elemental mercury storage at 7 candidate locations: Grand Junction Disposal Site near Grand Junction, Colorado; Hanford Site near Richland, Washington; Hawthorne Army Depot near Hawthorne, Nevada; Idaho National Laboratory near Idaho Falls, Idaho; Kansas City Plant in Kansas City, Missouri; Savannah River Site near Aiken, South Carolina; and Waste Control Specialists, LLC, near Andrews, Texas. As required by the Council on Environmental Quality National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), the No Action Alternative is also analyzed as a basis for comparison. The Preferred Alternative is storage in a combination of an existing facility and a new facility at Waste Control Specialists, LLC, near Andrews, Texas.

The Savannah River Site (SRS) was constructed to produce nuclear weapons for the Department of Defense in the 1950s. Production of nuclear materials was discontinued in 1988. Chemical and radioactive wastes were byproducts of this process, and these wastes have been treated and stored at SRS. Past disposal practices have resulted in significant site contamination, including

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**Commentor No. 31 (cont'd): Bob Perry, Director, Office of Environmental Programs
South Carolina Department of Natural Resources**

Mr. David Levenstein
DOE/EIS-0423D
March 29, 2010

the contamination of ground water, surface water, sediment, sludge and soil, and the accumulation of solid waste and debris. Contaminants include uranium, arsenic, mercury, cesium, radium, thorium, benzo(a)pyrene, cobalt, lead chromium and potassium. Contaminated sites include 515 waste sites identified for cleanup under federal Resource Conservation and Recovery Act (RCRA) permits, funded by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or Superfund.

In 1972 DOE designated SRS as a National Environmental Research Park. The majority of land within the SRS is designated conservation area, which includes the Red-Cockaded Woodpecker Management Area, the Crackerneck Wildlife Management Area and Ecological Preserve, and the Savannah River Swamp Management Area. The site supports a high biodiversity of plant and animal species, including 8 federally and state-listed threatened and endangered species. The United States Forest Service also maintains portions of the site as managed pine plantation. Additionally, the site is location to a variety of mitigation and ecological restoration projects, including a multitude of Carolina bays in various stages of restoration.

DOE continues its progress toward remediation of SRS after decades of contamination. Since the DOE objective at SRS is to remediate contaminated conditions, and because the site offers so many scientific, academic and natural resource benefits, DNR submits that the construction of a long-term mercury storage facility at the SRS does not represent the least-damaging alternative site for the long-term storage of elemental mercury.

Therefore, DNR concurs with the Mercury Storage EIS Preferred Alternative to locate the facility at the site operated by Waste Control Specialists, LLC near Andrews, Texas.

The DNR project manager for mercury contamination issues is Vivianne Vajdani. Please feel free to contact Vivianne at 803.734.4199 or at vvdani@dnr.sc.gov if you have any questions regarding these comments.

Very truly yours,



Bob Perry
Director, Office of Environmental Programs

c: Michael G. McShane – DNR Board Chairman
John Frampton
Don Winslow
Robert Boyles
Breck Carmichael
Ken Reniers
Vivianne Vajdani
Greg Mixon
Priscilla Wendt

31-1

31-1

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at SRS and support for the identification of WCS as the Preferred Alternative. However, as stated in Chapter 4, Section 4.8.8, DOE continues to manage several ongoing programs and projects at SRS in support of sitewide remediation. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.

Commentor No. 32: Gerriana Koeniger

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Monday, March 29, 2010 9:32 PM

Mr. David Levenstein
 EIS Document Manager
 U.S. Department of Energy
 Draft Mercury Storage EIS Comments
 P.O. Box 2612
 Germantown Maryland 20874.

Dear Mr. Levenstein

I have reviewed the 798 page EIS.

I express some of my many concerns about the proposed Preferred Alternative of WCS. I support P.L. 110-414 and hope safe methods can be found to eliminate mercury from our economy and mercury contamination from our bodies and our environment. We are already exposed to far too much mercury in the air we breathe and fish we eat mainly from excessive pollution released from coal and cement plants.

I support the principles of minimizing movements of hazardous materials such as mercury around the country and support the use of multiple storage sites for this and other safety reasons. I support the use of above ground continuously monitored storage rather than outdated leaky burial methods. I encourage continued research to find better ways to inactivate mercury and render it safer to handle store and potentially dispose of.

I understand after careful review that none of the proposed sites is ideal. I also understand the attraction of WCS because the area around this location has a very low population density. Unlike other sites people are very unquestioning. I question:

1. This site is far from any of the current locations of mercury requiring 1.8 million miles of truck travel exceeded only by Hawthorne and Hanford. Only Hanford exceeds WCS and Hawthornes estimated 395,000 miles of rail transport. The accident estimates for this transportation by rail or truck are therefore among the highest.

32-1

DOE acknowledges the commentor's support for the Mercury Export Ban Act of 2008 (P.L. 110-414) and the desire to eliminate mercury from our economy and environment. This *Mercury Storage EIS* has been prepared in response to Section 5 of the Act, which directs DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States.

32-2

DOE acknowledges the commentor's concern that elemental mercury should be stored where it is generated. The Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored at or near the source of generation. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

32-1

As discussed in Chapter 2, Section 2.2, the proposed storage facility would be an aboveground structure and would incorporate numerous safety features, including monitoring, to protect personnel and the environment.

32-2

As stated in Chapter 1, Section 1.3.1, currently there is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Evaluation of potential treatment and disposal methods is beyond the scope of this *Mercury Storage EIS*.

32-3

As noted in Chapter 2, Table 2-2, the mileage associated with truck and rail transportation to WCS, as well as the human health risks for both truck and rail transport, would be the third highest of the seven alternative mercury storage sites. A full analysis of accidents is presented in Chapter 4, Section 4.9.9.3, and Appendix D, Section D.2.7. Although the transportation mileage is the third highest, the analysis showed that no traffic fatalities are expected, and the risk to the public from a serious transportation accident would be negligible to low.

32-3

Commentor No. 32 (cont'd): Gerritiana Koeniger

<p>2. Within a radius of 100 kilometers (62 miles) of WCS a total of 9 earthquakes larger than magnitude 2.5 have been recorded since 1973. The largest had a magnitude of 5 and occurred in 1992. So we could expect another ten or dozen such events in the 40 years of planned operation. The stacks of mercury containers need to be able to withstand such movement. I don't see where this is addressed.</p>	<p>32-4</p> <p>DOE acknowledges the commentor's concerns regarding earthquakes in the vicinity of WCS and the risk to stored elemental mercury. Chapter 2, Table 2-4, shows that WCS has one of the lower measures of seismic risk among the seven candidate locations. In addition to evaluating the historical seismicity of each site, the analysis included using the latest probabilistic earthquake ground motion data from the U.S. Geological Survey to specifically compare the candidate sites. Appendix B, Table B-4, presents a general comparison of the earthquake measures used in this <i>Mercury Storage EIS</i>.</p>
<p>3. The EIS states the following with regard to water, "Water liters per year 24,721,000 current usage 49,740,311 capacity. The primary source of potable water for WCS is via pipeline from Eunice, New Mexico. WCS uses water from its central well for fire water and dust suppression. Production from the central well is at a rate of 95,114 liters 2,530 gallons or 5,060 million liters 1,316 million gallons per year." I do not see any analysis of what this continued and expanding draw on ground water will do to the area over time. In particular I see no study of how the future of Eunice community and potable well water supplies will be affected by this development.</p>	<p>32-5</p> <p>Chapter 3, Section 3.8.2.3, of this EIS describes geologic hazards in the WCS region, including historical seismicity (i.e., frequency and location of earthquakes). As noted by the commentor, the 1992 "Rattlesnake Canyon earthquake" produced Modified Mercalli Intensity V shaking at its epicenter location. As shown in Appendix B, Table B-4, such an earthquake is considered light in terms of shaking effects. Chapter 4, Section 4.9.9.2, specifically assesses the effects earthquakes could have on a mercury storage facility at WCS and concludes that the risk is minimal. This conclusion is based on the predicted peak ground acceleration of 0.12 g (force of acceleration relative to that of Earth's gravity) at the site from an earthquake with an annual probability of occurrence of 1 in 2,500. Ground motion in this range could cause slight damage to ordinary structures, but is not expected to affect modern structures that have been designed and constructed to withstand the assessed hazard.</p>
<p>4. I find the discussion of groundwater at the site very interesting. There are clearly described areas of high water content close to the surface. I believe these are in strong contradiction to the WCS position that the 80 foot deep LLRW trenches are at no risk of water infiltration. I strongly urge a new thorough and independent study of groundwater characteristics in the WCS site prior to its further consideration for mercury.</p>	<p>32-6</p> <p>Nevertheless, the facility accidents analysis specifically evaluated earthquake-induced spills of flasks or 1-metric-ton (1.1-ton) containers, as shown in Chapter 4, Table 4-3, for all candidate sites and described in Section 4.9.9.2 specifically for WCS. Appendix D, Section D.2.5.2, describes the methodology used for evaluating earthquake-induced spills and conservatively assumed beyond-design-basis earthquake conditions. Section D.2.2 describes the conditions under which the mercury containers would be stored. The pallets of 3-liter (34.6-kilogram [76-pound]) flasks would stand in a metal spill tray capable of holding the contents of 10 percent of the flasks in the pallet. They could then be placed onto seismically rated storage racks and stacked either two or three high. The 1-metric-ton (1.1-ton) containers would be stored on spill trays on the floor of the facility.</p>
<p>5. Severe weather events in the area include flash floods, high winds, dust storms, tornadoes, hail. During a 42-year period of record Andrews County reported 21 tornadoes. The EIS describes a fully enclosed weather-protected building which unlike several other sites would have to be constructed at WCS. There is no indication that the metal building pictured in the EIS would withstand a tornado. How likely is it that the people of Eunice would be pelted with flying mercury canisters in the event of a tornado? How likely is it these would leak?</p>	<p>32-7</p> <p>The values cited by the commentor reflect the existing usage and site water supply capacity for WCS, as described in Chapter 3, Section 3.8.7, of this <i>Mercury Storage EIS</i>. Chapter 4, Section 4.9.7.2, addresses the water demands for</p>
<p>6. 4.9.5.3, Threatened and Endangered Species' states, "No threatened or endangered species are known or are expected to exist within the area of the proposed mercury storage facilities at WCS. Thus, no impacts on threatened or endangered species are expected." However, 3.8.5.4 states, "Nine federally and/or state-listed threatened endangered and candidate species have been identified as occurring or possibly occurring on WCS." I do not find any explanation for this discrepancy. Clearly no actions should take place at WCS that will further threaten these species.</p>	<p>32-8</p> <p>32-5</p>

Commentor No. 32 (cont'd): Gerriana Koeniger

32-9

7. I do not see any cost analysis in the site evaluations. Where is the cost benefit study to help understand what will be spent to do this mercury project?

construction and operation of a mercury storage facility at WCS. Construction activities would increase site water use by about 5 percent for 6 months, and operations would increase water use by about 0.4 percent annually. As discussed in Section 4.11.1, water usage for a mercury storage facility is projected to have a negligible contribution to cumulative impacts on water resources, and thus, would have a negligible impact on the future supply of potable water in Eunice, New Mexico.

32-10

8. Most seriously the Cumulative Impacts provides no study of the risks of storing not only mercury at WCS but storing it in close proximity to toxic radioactive waste and other commercial hazardous waste. The Lenexa Kansas site was eliminated for this very consideration. Due to concerns about permitting and operating an underground facility for long-term storage of mercury and concerns about mercury storage being incompatible with storage of other materials DOE has eliminated this option. Surely the possibility of incompatibility of mercury storage with these other hazardous materials should at least be considered and studied.

32-6

DOE acknowledges the commentor's concerns regarding the depth to groundwater at WCS. Chapter 3, Section 3.8.3.2, of this *Mercury Storage EIS* summarizes existing groundwater conditions at WCS, based on relevant information obtained and reviewed by DOE. Chapter 4, Section 4.4.3, addresses the impacts of facility construction and routine operations on surface-water and groundwater hydrology and existing contaminant plumes. As described in Section 4.9.3.2, construction of a mercury storage facility at WCS is not expected to affect groundwater due to the depth to groundwater and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). No mercury would be stored below ground level. Also, as summarized in Section 4.11.1, impacts on water resources and waste management from constructing and operating a mercury storage facility were projected to be negligible; therefore, these resource areas were not considered further in the context of cumulative impacts at WCS. A geotechnical study would be conducted to confirm site geologic characteristics for facility siting and engineering purposes, as noted in Section 4.9.2.1 of this EIS. This would include determination of the depth to groundwater beneath the mercury storage facility.

32-11

9. 4.10 describes closure. This entire project is planned to last only a few (4) decades. Then the problem will remain unless new technology to safely inactivate elemental mercury arises. All the millions of miles of transport the hundreds of millions of dollars the construction, etc. may well be duplicated again in sending the stuff off to yet another storage sites.

32-12

I oppose the WCS site for the reasons mentioned among others. It is illogical I think to spend so much money to construct a facility so far from all the mercury to store it there for 40 years to then shut it down.

32-13

The safety questions of the site have not been answered adequately. The water usage has not been adequately addressed. The potential witches brew of elemental mercury LLRW and commercial hazardous waste has not even been mentioned.

32-7

A long-term mercury storage facility(ies) would be built in accordance with local building codes, and design factors to mitigate potential impacts from wind loads would be considered. Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site. Tornadoes of severity F1 and F0 (using the Fujita or "F" scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D-6, the predicted annual strike rate for an F2 or more-severe tornado at WCS is less than 1 in a million.

32-14

I strongly urge you to adopt the No Action Alternative. You give minimal consideration to this. It merits your serious attention. You do not seriously evaluate the risks and costs and benefits of widely dispersed storage. Smaller sites would have smaller amounts to spill. Transportation costs and risks would be largely eliminated. The users of mercury would bear the cost and responsibility of its proper handling and storage. Federal inspections could be as successful here as elsewhere. New construction would not be needed. No new environmental degradations would be required. No new populations would be threatened. That is the best kind of environmental justice. I appreciate the opportunity to provide input.

32-8

Chapter 3, Section 3.8.5.4, indicates that a total of nine special status species could occur on site at WCS as a whole; however, only two of these are federally endangered. Chapter 4, Section 4.9.5.3, notes that no threatened or endangered species are known to occur within the two areas considered for construction of the

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Commentor No. 32 (cont'd): Gerriiiana Koeniger

mercury storage facility at WCS. Therefore, there would be no impact on this group of species as a result of constructing and operating the proposed facility; thus, there is no discrepancy. Section 3.8.5.4 has been revised for clarity and consistency with Section 4.9.5.3. Further, as reflected in revised Section 4.9.5.3, a site biological survey would be conducted to ensure that threatened and endangered species would not be impacted.

32-9 Costs are not presented in this *Mercury Storage EIS*. As described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury.

32-10 DOE acknowledges the commentor's concerns about the cumulative impacts analysis and the compatibility of elemental mercury with other materials stored at WCS.

DOE is cognizant of compatibility issues with mercury storage. So as to mitigate any compatibility concerns, the proposed mercury storage facility(ies) would only store elemental (metallic) mercury that is at least 99.5 percent pure. As discussed in Chapter 2, Section 2.2, of this EIS, DOE has developed guidance, presented in *Interim Guidance* (DOE2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The *Interim Guidance* discusses DOE's anticipated waste acceptance criteria for discarded mercury to be stored at the facility(ies). All mercury to be stored at the facility(ies) must meet these requirements. Further, as an engineered, aboveground facility designed and constructed for the exclusive use of storing elemental mercury, a DOE mercury storage facility(ies) differs from the underground limestone mine operated by Meritex Enterprises in Lenexa, Kansas, as discussed in Section 2.6.1. Section 2.2.1 describes the construction of a new mercury storage facility. It would be located in an area under the control and authority of DOE that would include appropriate fencing and security. The building construction would be primarily of noncombustible materials and would include a fire suppression system (e.g., sprinkler). The new facility would have a reinforced-concrete floor, strong

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Commentor No. 32 (cont'd): Gerriiiana Koeniger

enough to withstand the heavy loads from mercury storage. The floors would also be treated with an epoxy sealant to add strength and make them impervious to mercury leaks and spills and water from fire suppression systems. The exterior of the storage facility would likely be sheet metal panels fastened to structural steel supports and connected together to form a weather-protected structure. Lighting, ventilation, fire suppression, and security monitoring systems would be incorporated into the facility design.

32-11 DOE acknowledges the commentor's concerns about duplication of effort and costs associated with the disposition of stored elemental mercury. Please note that the mercury storage facility(ies) would not necessarily be shut down at the end of 40 years. In the event that storage beyond the 40-year period of analysis becomes necessary or if more than 10,000 metric tons (11,000 tons) need to be stored, additional NEPA documentation would have to be prepared. In either case, no duplication of effort or costs would be incurred.

32-12 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS. As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for such elemental mercury wastes. As described in Section 2.1, the Mercury Export Ban Act of 2008 (P.L. 110-414) does not specify how long the DOE mercury storage facility(ies) would need to be operated. For purposes of analysis, DOE assumes the operation of a mercury storage facility(ies) with a capacity of 10,000 metric tons (11,000 tons) over a 40-year period of analysis. These are estimates with a degree of uncertainty; therefore, it is possible that more or less than 10,000 metric tons (11,000 tons) of mercury could eventually require storage for a period longer or shorter than 40 years. Additional NEPA documentation would be required to evaluate expanding the facility(ies) to accept more than 10,000 metric tons (11,000 tons) of mercury or extending its operations beyond the 40-year period of analysis. Details on closure of the mercury storage facility are addressed in Chapter 4, Section 4.10.

32-13 DOE acknowledges the commentor's statements that concerns regarding site safety, water use, and the compatibility with other waste management activities at WCS have not been adequately addressed. Please see the responses to Comment Nos. 25-3, 25-5, 25-6, 25-7, 25-8, and 25-11.

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Commentor No. 32 (cont'd): Gerriana Koeniger

32-14

DOE acknowledges the commentor's preference for the No Action Alternative. While DOE has given consideration to this alternative (see Chapter 4, Section 4.2), Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) requires DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States. However, the Act does not require generators to store their elemental mercury at the DOE storage site. Thus, some or all such mercury could be stored within or near the generating sites, which would be similar to the No Action Alternative.

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**Commentor No. 33: David Foy, President
Colorado Counties, Inc.**



Colorado Counties, Inc.

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www.cconline.org

March 29, 2010

Mr. David Levenstein
EIS Document Manager
U.S. Department of Energy
P.O. Box 2612
Germantown, MD 20874

Dear Mr. Levenstein,

Colorado Counties, Inc (CCI) is opposed to storing elemental mercury at the Grand Junction Disposal Site in Grand Junction, CO.

CCI is a membership organization of elected county commissioners and council members from Colorado's 64 counties and cities and counties.

The Grand Junction Disposal Site near Grand Junction, Colorado is one of seven candidate locations analyzed by the *Long-Term Management and Storage of Elemental Mercury EIS*. In a statement submitted by the Mesa Board of County Commissioners to the US Department of Energy on August 13, 2009, Mesa County itemized their concerns and their request for further analysis regarding the disposal of mercury at the Grand Junction Disposal Site. CCI reiterates Mesa County's concerns and stresses their point regarding available transportation routes. As you may know, many of Colorado's interstates and railroads parallel Colorado's waterways. It is not inconceivable that an accident occurring during the transportation of elemental mercury could contaminate Colorado's drinking water and environment. This in turn could implicate the entire southwest United States since our neighbors rely on the water originating in Colorado.

Thank you for considering our opposition.

Sincerely,

David Foy
Washington County Commissioner
CCI President

President: David Foy, Washington • President-elect: John Sanderson, Conejos • Secretary: Dennis Hiest, El Paso • Treasurer: Frank Wedding, Arapahoe
Jack Hilbert, Douglas • Trust: Heidi Haight, Garfield • Jenae Nicholson, Gilpin • Past President: Doug Mangler, Teller



33-1 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at GJDS.

33-2 The likelihood of spills into water bodies is discussed qualitatively in Appendix D, Section D.2.8, of this *Mercury Storage EIS*, where it is conservatively concluded that the frequency of such events anywhere along a transportation route is moderate for truck transportation and low for railcar transportation. The potential for spillage into the Colorado River and other Colorado waterways is explicitly recognized in that section.

This possibility is further discussed in Chapter 4, Section 4.3.9.3.2, of this EIS. DOE recognizes that the route to GJDS contains the greatest distance of any route where there is potential for spillage into a river to occur. The overall conclusion is that a direct spillage of mercury into a body of water could be of concern if it is not cleaned up, but there is generally adequate time for such cleanup. Hence, the consequences to humans could be managed so that they are negligible or low. Given this assumption and the fact that the frequency of crashes with spills on any of the transportation routes is no more than moderate (and this is an upper bound on the frequency of spills directly into water), the risk would be negligible or low for all transportation routes. However, DOE recognizes that there is a large degree of uncertainty regarding this conclusion in the case of spillage into fast-flowing rivers. Therefore, the observation that risk would be negligible or low for all transportation routes should be tempered by noting that the uncertainty regarding this prediction of risk is very large, as discussed in Appendix D, Section D.6.1.2.

33-1

33-2

**Commentor No. 34: Norman A. Mulvenon, Chair
LOC Citizens' Advisory Panel**



March 29, 2010

Mr. David Levenstein, Document Manager
Office of Environmental Compliance (ESM-41)
U.S. Department of Energy
P.O. Box 2612
Germantown, MD 20874

Sent via fax to (877) 274-5462.

Subject: Comments on Draft Long-Term Management and Storage of Elemental Mercury, Environmental Impact Statement (EIS)

Dear Mr. Levenstein:

The Citizens' Advisory Panel (CAP) of the Oak Ridge Reservation (ORR) Local Oversight Committee (LOC) has reviewed the Mercury Storage EIS. The CAP supports the preferred alternative of storage at Waste Control Specialists, LLC, Andrews, TX, and the timely transportation of Y-12's stockpile to that location. In addition, we have some comments on the document:

1. Impure and/or waste mercury that otherwise has the characteristics of elemental mercury should be explicitly considered in the EIS. Because there is currently no option for disposal of waste mercury, the alternatives evaluated should include long-term management and storage of impure and/or waste mercury, including mercury contaminated with other metals or radionuclides. If this class of mercury is excluded from the storage option, the EIS should evaluate the environmental impacts of treatment of such mercury to qualify it for storage.
2. The Spallation Neutron Source at Oak Ridge National Laboratory will likely need additional elemental mercury for the beam-line target at a future date. The action to store mercury and remove it from commerce should not prevent this national science facility from acquiring sufficient pure mercury on an as-needed basis for continued operation.

Thank you for the opportunity to comment on the draft Long-Term Management and Storage of Elemental Mercury EIS. Please ensure that the LOC is on the mailing list for receipt of all documents associated with this action.

Sincerely,

Norman A. Mulvenon
for

Norman A. Mulvenon
Chair, LOC Citizens' Advisory Panel

cc: LOC Document Register

LOC Board
LOC CAP

Patricia Halsey, DOE FFA Project Manager
Gerald Boyd, Manager, DOE ORO
Ted Sherry, Y-12 Site Office Manager, NNSA
John Owsley, Director, TDEC-DOE-O
Ron Murphree, Chair, ORSSAB

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34-1

DOE acknowledges the commentor's support of the long-term management and storage of elemental mercury at WCS and timely transportation of Y-12's stockpile of elemental mercury to that location. However, as noted in Chapter 1, Section 1.3.1, either the entire inventory of Y-12 mercury or a portion of this inventory could be retained in storage at Y-12 to support ongoing DOE missions. However, for purposes of analysis, the entire inventory was assumed to be sent to the new DOE mercury storage facility(ies).

34-2

Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) requires DOE to designate a facility (or facilities) for the long-term management and storage of elemental mercury. DOE has determined that it will accept elemental mercury that is at least 99.5 percent pure. As described in Chapter 2, Section 2.6.2, EPA regulates the treatment and disposal of mercury-containing wastes through waste management regulations under RCRA. The treatment standard for mercury wastes with concentrations greater than or equal to 260 milligrams per kilogram is roasting or retorting the mercury waste in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery, yielding high-purity elemental mercury (40 CFR 268). Therefore, current treatment requirements for these high-concentration nonradioactive mercury wastes would yield high-purity elemental mercury that may be a candidate for storage in the DOE mercury storage facility(ies). Because regulations currently require the roasting or retorting of high-concentration mercury wastes, the impacts of treating these materials were not considered in this *Mercury Storage EIS*.

34-3

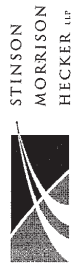
DOE recognizes that some or all of the elemental mercury currently stored at Y-12 may be needed to support ongoing or future missions. The Mercury Export Ban Act of 2008 (P.L. 110-414) requires DOE to construct and operate a facility (or facilities) for the long-term storage of elemental mercury; however, the Act does not require that mercury be transferred to the facility(ies). Therefore, as described in Chapter 1, Section 1.3.1, either the entire inventory of Y-12 mercury or a portion of this inventory could be retained in storage at Y-12.

34-1

34-2

34-3

**Commentor No. 35: Stephanie Lindsay for
Marlborough Community Coalition**



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March 30, 2010

CONFIRMATION BY MAIL

David Levenstein
Document Manager
Office of Environmental Compliance (EM-41)
US Department of Energy, P.O. Box 2612
Germantown, MD 20874

Re: Comments re: Draft Long-Term Management and Storage of
Elemental Mercury Environmental Impact Statement

Dear Mr. Levenstein:

Enclosed please find a copy of the Marlborough Community Coalition's
comments on the Draft Long-Term Management and Storage of Elemental Mercury
Environmental Impact Statement. These comments have been submitted on the
Mercury Storage EIS website, but a hard copy is being sent to you as confirmation
that the comments are received. We appreciate your consideration of our comments.

Best regards,

STINSON MORRISON HECKER LLP

Stephanie Lindsay
Stephanie Lindsay

SL:SLL

Enclosure

cc: Betty Ost-Everley, Marlborough Community Coalition
Steve Chinn, Stinson Morrison Hecker

KANSAS CITY
OVERLAND PARK
WICHITA
WASHINGTON, D.C.
PIERCE
ST. LOUIS
OMAHA
JEFFERSON CITY

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**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

The Marlborough Community Coalition Comments
On the Draft Long-Term Management and Storage of Elemental Mercury
Environmental Impact Statement
March 30, 2010

I. Introduction

As required by the Mercury Export Ban Act of 2008 ("Act"), the Department of Energy ("DOE") plans to designate a facility or facilities for the long-term management and storage of elemental mercury generated within the United States. Pub. L. 110-414 (October 14, 2008). To this end, DOE has considered seven candidate locations within the United States for the possible long-term management and storage of mercury. 75 Fed. Reg. 4801 (January 29, 2010); *see also* DOE, Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (2010). One of the seven candidate locations is found in Kansas City, Missouri at a DOE facility within the Bannister Federal Complex. 75 Fed. Reg. 4801 (January 29, 2010). DOE has allowed interested parties until March 30, 2010 to provide written comments on the Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement ("EIS"). *Id.* The Marlborough Community Coalition ("MCC") submitted comments during the scoping process and appreciates the consideration given to these comments in the EIS. MCC wishes to incorporate by reference the previously submitted comments into this submittal, while presenting additional comments in opposition of the proposed location of a mercury storage facility at the DOE Kansas City Plant in Kansas City, Missouri (hereinafter "Kansas City Plant"). MCC asks that each of the following reasons for opposition be fully considered in order to select a storage site at a facility other than the Kansas City, Missouri location.

II. MCC Opposes the Use of the Kansas City Plant for the Long-term Management and Storage of Mercury due to the Impacts Associated with the Facility's Urban Location

MCC opposes the use of the Kansas City Plant for the long-term management and storage of mercury due to the effects associated with the plant's urban location. The total site size of the

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35-1

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at KCP. Comments submitted during the scoping period were considered in developing the *Draft Mercury Storage EIS*, and DOE considered all comments received during the comment period on the draft EIS in preparing this final EIS.

35-2

DOE acknowledges the commentor's observations regarding the presence of minority and low-income populations in the vicinity of KCP. Chapter 4, Section 4.7.12, of this *Mercury Storage EIS* presents the analysis of potential environmental justice impacts at KCP, including the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations within the region of influence at KCP in the event of a transportation accident. As discussed in Section 4.7.9.3, transportation accidents have been predicted to pose a negligible-to-low human health risk.

35-1

The land use analysis presented in Chapter 4, Section 4.7.1 recognizes that, although no applicable land use plans, policies, or controls have been identified that would specifically restrict storage of elemental mercury, such storage might not be considered compatible with proposed redevelopment of the site, adjacent residential zoning, or the proximity of sensitive populations within 0.8 kilometers (0.5 miles) of the site. In addition, DOE performed a qualitative assessment of the impact that locating a mercury storage facility could have on property values, which is presented in Appendix B, Section B.10.2. As discussed in the analysis, some case studies have shown that the stigma created from such sites has caused property values closer to the site to decrease, some have shown an increase in value due to the potential for well-paying jobs, while many others have shown no impact. Regardless, the primary factor in determining the impact on property values is the perceived risk to human health imposed on residents of a property in close proximity to that facility. As presented in the "Occupational and Public Health and Safety" sections of Chapter 4, operation of a mercury storage facility would result in little risk of environmental contamination due to the design and safety parameters put in place. Similarly, the human health risk to the offsite population would be negligible to low.

35-2

**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

Kansas City Plant measures 136 acres and the next smallest site measures 360 acres. DOE, EIS 2-36 (2010). The Kansas City Plant is situated in the middle of an urban center. DOE, EIS 3-93 (2010). Approximately 700,014 people live within ten miles of the Kansas City Plant and about 28,184 people live within two miles of the Kansas City Plant. DOE, EIS 3-106 & 3-107 (2010). The closest residence is approximately 500 feet west of the Kansas City Plant. DOE, EIS 3-99 (2010). Of the 671 census blocks located within ten miles of the Kansas City Plant, 248 include either a disproportionately high minority population, a disproportionately high low-income population, or both. DOE, EIS 2-49 (2010). Within a smaller two mile radius, of which forty-one census blocks exist, seventeen blocks contain a disproportionately high minority population and/or a disproportionately high low-income population. *Id.* As well, Health Professional Shortage Area ("HPSA") designations have been identified for population groups located in close proximity to the Kansas City Plant, meaning these areas have a shortage of medical care providers. DOE, EIS 3-108 (2010). Lastly, the Kansas City Plant is one of only two site alternatives in which a transportation accident at or near the facility could disproportionately impact low-income and minority individuals. DOE, EIS 2-38 (2010).

The Kansas City Plant site is considerably the smallest site location out of all of the alternatives, with the next smallest site over double the size of the Kansas City Plant. The undersized nature of the site is exacerbated by the fact that a large, urban population exists within the immediate vicinity. As the only site alternative situated in the middle of an urban city, if any emergency exists at the facility, over 700,000 people could be affected. Even if the entire city were not affected, the closest resident lives a mere 500 feet from the facility, the closest resident to any site location and, thus, the person living closest to the epicenter if an emergency strikes. The people affected by such an emergency include a higher than average amount of

35-2
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***Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition***

minority populations and low-income populations, creating environmental justice concerns. Not only are such people disproportionately affected, they also have a lower than average availability of medical providers. Thus, if an emergency existed, the very people who are disproportionately affected would have inadequate medical services available from which to seek help. No other site alternative poses such a destructive threat to such a large population of people. In fact, the other proposed sites are located far enough from major urban areas that any airborne mercury would likely dissipate before reaching local populations, causing few, if any, negative health effects to humans.

Although MCC agrees that a transportation accident at or near the facility could impact minority and low-income individuals disproportionately, MCC disagrees that impacts on these communities are not expected to result from the operation of a mercury storage facility. DOE, EIS 2-49 (2010). The region surrounding the Kansas City Plant includes a variety of single and multiple family dwellings. In light of the socioeconomic makeup near the facility, many of the residents in the communities surrounding the Kansas City Plant, including the Marlborough Community, do not have the means to move away from the area if the Kansas City Plant were selected against their wishes as the housing site for mercury. The location of a toxic storage facility would serve as a deterrent for positive growth and development within the areas surrounding the Kansas City Plant. MCC specifically objects to this because it works under the mission of promoting neighborhood improvement. Placing a mercury storage facility only steps away from the MCC neighborhoods would undercut MCC's hard work by exacerbating the negative socioeconomic impacts it has strived to combat.

III. MCC Opposes the Use of the Kansas City Plant for the Long-term Management and Storage of Mercury due to the Impacts on Water

**35-2
cont'd**

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**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

35-3

DOE acknowledges the commentor's concerns regarding water resources and flooding at KCP. Protection of the environment, cleanup of pollution, and protection of public health and safety are of paramount importance to DOE. Existing groundwater conditions and the potential impacts on groundwater from construction and operation of a new mercury storage facility(ies) are analyzed in a manner commensurate with their importance and the expected level of impact on them—the sliding-scale assessment approach. This is consistent with DOE guidance contained in its *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements* (DOE 2004), in which DOE expands on Council on Environmental Quality instructions for preparing EISs (40 CFR 1502.2) by stating that impacts should be discussed in proportion to their significance and specifically recommending the use of the sliding scale for impact identification and quantification.

The impacts assessment was prepared in accordance with the methodology described in Appendix B, Section B.4, of this EIS. Chapter 3, Section 3.6.3.2, summarizes existing groundwater conditions, including contamination, across KCP, and Chapter 4, Section 4.7.3, addresses the impacts of facility construction and routine operations on surface water and groundwater hydrology and existing contaminant plumes. As noted in Section 4.7.3.2, construction activities are not expected to affect groundwater or existing contamination due to the depth to groundwater and the shallow depth of excavation. The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as referenced in Section 4.7.3.1. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, or equivalent plans as mandated by state requirements for RCRA-permitted facilities, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. DOE does not expect construction and operation of a new mercury storage facility at KCP to affect resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts, as noted in Section 4.7.8. Thus, no cumulative impacts on cleanup activities are expected.

35-3

MCC opposes the use of the Kansas City Plant for the long-term management and storage of mercury due to the potential impacts it may have on water. The location of a long-term mercury storage facility at the Kansas City Plant could heighten the harm to surface and ground water that already exists at the facility. The Kansas City Plant is located on the drainage divide between the Blue River, immediately to the east, and Indian Creek, a major tributary stream, to the south. DOE, EIS 3-96 (2010). United States Geological Survey studies have found water quality impairment in the Blue River Basin due to the intensive urbanization, flood control, and nonpoint source pollution of the area. DOE, EIS 3-97 (2010).

A groundwater aquifer underlies the Kansas City Plant. *Id.* Groundwater contamination exists at the Kansas City Plant. DOE, EIS 3-95 (2010). Specifically, groundwater contaminated by chlorinated solvents was found during cleanup activities that started in 1998. *Id.* Additional releases into groundwater have included PCBs and petroleum hydrocarbons. *Id.* In addition, three separate plumes have been identified within the boundaries of the Kansas City Plant. DOE, EIS 3-98 (2010). These contaminant plumes are the result of past activities at the site. *Id.* This contamination is being addressed pursuant to a Memorandum of Agreement between GSA, NNSA, and the U.S. Army Corps of Engineers. *Id.*

It is possible that additional activities associated with the long-term management and storage of mercury at the facility would aid in the continued degradation of the Blue River Basin and the underlying groundwater aquifer. Intense urbanization and past activities at the site have already led to the decline of these water bodies; allowing continued and additional activities will exacerbate urbanization in the area, further antagonizing the contamination. Any such impacts would more greatly affect this site alternative because of the close proximity of the surface waters to the Kansas City Plant and the directly underlying location of the groundwater aquifer.

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**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

The close proximity of water to the site means that the Kansas City Plant is one of only two sites located within a one hundred (100) year flood plain. The Blue River and Indian Creek are subject to frequent flooding due to intense urban development, causing even moderate floods to "become a serious problem." DOE, EIS 3-97 (2010). The Blue River and Indian Creek leave their banks several times a year, flowing onto portions of the Bannister Federal Complex. *Id.* A flood protection system does exist to prevent 500 year floods from reaching any structures on the site; however, effective operation of the system requires the manual closing of floodgates and placement of stop logs and sandbags. *Id.* It would take an estimated thirty-two workers approximately four hours to close the floodgates. *Id.* Operation of the facility is estimated to require between five and seven employees. DOE, EIS 4-105 (2010). The annual flow of the Blue River averages about 172 cubic feet per second, with the average flow approximately 257 cubic feet per second in 2007. DOE, EIS 3-96 (2010).

The Kansas City Plant has a higher likelihood of flooding than any other site alternative because flood water routinely flows onto portions of the Bannister Federal Complex. If a flood were to occur, the flood protection system in place would require at least thirty-two employees to carry out, while the number of employees required for the long-term management and storage of mercury is only five to seven people, meaning enough manpower may not exist to implement the flood protection system. Although many more people may work at the Bannister Federal Complex, the DOE should not rely upon those people being able to provide assistance in a flood emergency because it is unknown whether additional workers will always be onsite in the future. Also, even if an adequate number of workers existed to close the floodgates, it would still take at least four hours for the gates to be closed. With water likely flowing much faster than the

Chapter 3, Section 3.6.1, describes the flooding potential of the Blue River and Indian Creek and also discusses KCP's flood protection system. Section 3.6.1 also recognizes the contribution of urban development to frequent flooding of the Blue River and Indian Creek. Chapter 4, Section 4.7.3.1, specifically describes the potential impacts on surface water from siting a mercury storage facility at KCP, including flood protection considerations such as the need to manually close floodgates.

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Commentor No. 35 (cont'd): Stephanie Lindsay for Marlborough Community Coalition

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average rate of 172 cubic feet per second, it is unlikely that the workers would have the requisite four hours to put the floodgates into place before flooding begins.

IV. MCC Opposes the Use of the Kansas City Plant for the Long-term Management and Storage of Mercury due to the Speculative Nature of the Current Tenants' Future Location

MCC opposes the use of the Kansas City Plant for the long-term management and storage of mercury due to the speculative future location of the current tenants. The Bannister Federal Complex houses two main tenants: the United States General Services Administration ("GSA") and the National Nuclear Security Administration ("NNSA"). DOE, EIS 2-24 (2010). The long-term management and storage of mercury would occupy the 136 acres of the Bannister Federal Complex under the custody and control of NNSA. *Id.* NNSA provides the emergency planning and response support at this location. DOE, EIS 3-104 (2010). Under the Kansas City Responsive Infrastructure Manufacturing and Sourcing Project, NNSA is scheduled to relocate operations away from the Kansas City Plant to a new facility that would better accommodate the agency. DOE, EIS 3-93 (2010). The proposed facility would be at least 50% smaller than the current facility, resulting in reduced maintenance and energy costs. 73 Fed. Reg. 23244, 23245 (April 29, 2008). The relocation is tentatively scheduled to begin in 2011 and be completed in 2013. DOE, EIS 2-24 (2010). Initially, approximately 14,000 square meters of storage space could be available for the long-term storage of mercury. *Id.* If NNSA operations move to another location as planned, additional space could become available. *Id.* The building selected for the long-term management and storage of mercury must be ready to accept mercury by January 1, 2013. DOE, EIS 2-33 (2010).

In this instance, NNSA hopes to move facilities in order to modernize facilities and infrastructure, including a reduction in maintenance and energy costs. If the antiquity of the facilities was severe enough to warrant the movement of NNSA, it should have been evaluated in

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DOE acknowledges the commentor's concern related to the uncertainty of tenant status at KCP.

As noted by the commentor and addressed in Chapter 2, Section 2.4.6, NNSA is moving its operations to a new location. Although the present facility was deemed inadequate for NNSA's operations, following the upgrades described in Section 2.4.6, it would provide for the safe storage of elemental mercury. Although NNSA's move to its new facility would not be completed until 2013, 14,000 square meters (150,000 square feet) of storage space would be available prior to the 2013 deadline called for in the Mercury Export Ban Act of 2008 (P.L. 110-414). Note that this is 325 square meters (3,500 square feet) more space than needed to store the estimated 10,000 metric tons (11,000 tons) of elemental mercury that could be stored over the 40-year period of analysis (see Chapter 2, Section 2.2). Thus, adequate space is available at KCP regardless of whether NNSA moves. If it becomes necessary to expand the space required beyond that needed to store 10,000 metric tons (11,000 tons) of mercury, additional NEPA documentation would have to be prepared.

With respect to emergency planning and response, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies) (see Chapter 2, Section 2.2). The guidance is based on laws, regulations, DOE Orders, and best management practices. The *Interim Guidance* discusses (1) DOE's anticipated waste acceptance criteria; (2) procedures DOE would use to receive, store, and monitor the mercury; and (3) spill and emergency response procedures. Thus, with implementation of the *Interim Guidance*, there would be no lapse in providing for emergency planning and response support during the transition between NNSA's move from KCP and the use of the site for mercury storage.

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**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

the EIS. It is reasonable to assume that if one federal agency found the maintenance and energy costs high enough to warrant a change of facilities, then DOE, another federal agency, may come to the same conclusion.

Additionally, NNSA has not yet begun to move out of its current location. In fact, it is not scheduled to do so until 2011, with a move completion date in 2013. However, the facility slated for mercury storage must be ready to accept mercury by January 1, 2013. If events occur such that NNSA does not move or has not finished moving until after January 1, 2013, adequate space may not exist for the long-term management and storage of mercury at this location. Even if adequate space initially exists, the speculative nature of the move allows for the possibility that NNSA may not move at all, allowing no room for expansion. Room for expansion is necessary because DOE does not know exactly how much mercury will be managed and stored at the chosen facility over the life of the facility. Although some facilities may not be affected by the inability to expand, the Kansas City Plant is located on the smallest parcel of land of any of the chosen sites and could be greatly affected by this.

Lastly, if NNSA does move operations, the facility will no longer have emergency planning and response support in effect. It is possible that a lapse in emergency planning and response support could exist while DOE manages and stores mercury at the site, potentially leading to disastrous results. In conclusion, due to the speculative nature NNSA's move from the facility and the effects on emergency planning if the move occurs, MCC opposes the use of the Kansas City Plant for the long-term management and storage of mercury.

V. MCC Opposes the Use of the Kansas City Plant for the Long-term Management and Storage of Mercury due to the Recent Health Concern Complaints

MCC opposes the use of the Kansas City Plant for the long-term management and storage of mercury due to the recent health concern complaints lodged by former and present employees

35-5 DOE notes that EPA's initial and second round of sampling have both revealed no indoor health concerns. Otherwise, DOE is not in a position to respond to the many issues that appear in this comment unrelated to the management of elemental mercury, which is the focus of this *Mercury Storage EIS*. However, the commentor is referred to the most recent environmental monitoring results for KCP, which include indoor air quality, available on the EPA Region 7 website at www.epa.gov/region7/cleanup/bannister/.

Overall, DOE reiterates its commitment to ensure that mercury is stored, handled, and transported according to required regulations and best management practices (as described, for example, in the *Interim Guidance* [DOE 2009a]) to protect the health and safety of the public and workers, no matter which site is chosen.

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**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

of the Bannister Federal Complex. In the early 1940s, the Kansas City Plant was constructed by the Navy to assemble engines for Navy fighter planes. Oak Ridge Associated Universities, Dose Reconstruction Project for NIOSH, 7 (May 31, 2005). Since then, portions of the property have been used for manufacturing, for a U.S. Department of Defense landfill, and for housing various federal agencies. EPA, January 2010 Fact Sheet: New Plans for Environmental Air Sampling, Buildings 50 and 52, Bannister Federal Complex, 1 (2010). The Bannister Federal Complex is currently zoned for heavy industry and manufactures mechanical, plastic, and other nonnuclear components of nuclear weapons. DOE, EIS 3-93 (2010). It also provides short-term storage of hazardous materials and wastes, including toxic metals. *Id.* The toxic nature of these manufacturing and storage activities has led to a "long history of known and suspected environmental contamination issues" at the Kansas City Plant. *Id.* Since at least 1989, EPA Region VII has been involved in a number of environmental assessment efforts under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), and the Resource Conservation and Recovery Act ("RCRA"). EPA, January 2010 Fact Sheet: New Plans for Environmental Air Sampling, Buildings 50 and 52, Bannister Federal Complex, 1 (2010).

A host of known environmental contaminants plague the location, including trichloroethylene ("TCE") and perchloroethylene ("PCE"). *Id.* In recent months, a flurry of citizen concerns and media reports regarding the Kansas City Plant have come forward. Particularly, a local news investigation has uncovered a list of approximately one hundred dead and sick workers from the GSA side of the facility and about 1400 claims of toxin-related illnesses on the NNSA side of the plant. NBC Action News, CDC Launches Bannister Health Probe, (February 25, 2010).

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**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

These reports prompted the Missouri Department of Natural Resources ("MDNR") to formally request Region VII of the Environmental Protection Agency ("EPA") to evaluate the health concerns. *Id.* at 2. In January 2010, EPA announced that it will work in conjunction with GSA to implement a comprehensive sampling plan of the Bannister Federal Complex. *Id.* at 1. EPA and GSA are developing testing protocols and initiating a sampling plan to determine whether environmental contamination in indoor or outdoor air poses human health risks to occupants of two buildings within the Bannister Federal Complex. *Id.* Although the initial testing will be isolated to Building 50, which houses the Kansas City South Field Office of the GSA, and Building 52, which houses the Bannister Complex Child Development Center, a public child care facility operated by a private contractor on GSA's behalf, it is possible that health concerns may exist across the facility. *Id.*

In February 2010, initial rounds of testing done within these two buildings revealed no indication of health concerns related specifically to volatile organic compounds ("VOCs"); however, "it does not mean that . . . [EPA's] . . . work is done." EPA Press Release, Initial Round of Sampling at Bannister Federal Complex Buildings 50 and 52 Reveals No Indoor Air Health Concerns, (February 18, 2010). For example, EPA officials documented toxic vapors beneath the buildings. NBC Action News, Expanded Toxin Tests Likely at Bannister (February 25, 2010). As well, EPA must conduct follow-up vapor intrusion monitoring at the two buildings on a quarterly basis, as well as groundwater sampling, soil gas sampling, and soil sampling around the buildings. EPA Press Release, Initial Round of Sampling at Bannister Federal Complex Buildings 50 and 52 Reveals No Indoor Air Health Concerns, (February 18, 2010).

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**Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition**

On the same day that EPA announced its initial findings, the Centers for Disease Control ("CDC") declared that the agency's National Institute for Occupational Safety and Health will launch a health hazard investigation at the Bannister Federal Complex, again upon a request from GSA. NBC Action News, CDC Launches Bannister Health Probe, (February 25, 2010) and NBC Action News, Expanded Toxin Tests Likely at Bannister (February 25, 2010).

In light of this new and evolving information, MCC contends that the environmental risks of managing and storing mercury at the Kansas City Plant are too great. The facility has manufactured and stored hazardous materials and wastes at this location for over seventy years, leaving much uncertainty as to what exists in the air, soil, and groundwater at the Kansas City Plant. Although the DOE addressed some of these concerns in the EIS, the recent citizen complaints and news investigations regarding the multitudes of dead and sick workers associated with the site have not been addressed in the EIS. Although initial results may not have found extensive contamination, at least two federal agencies are continuing testing, with results currently unknown. Until thorough tests of the entire complex have been conducted and made available to the public, it is possible that bringing additional employees to the facility for the management and storage of mercury could expose a new round of unwitting employees to potential health hazards. As well, the synergistic effects that could occur by placing mercury on the site of unknown contaminants that have been in place for at least seventy (70) years may exacerbate the health concerns at the facility. In conclusion, due to the ongoing complaints and the unresolved health issues regarding the Kansas City Plant, MCC opposes the use of the Kansas City Plant for the long-term management and storage of mercury.

VI. Conclusion

In conclusion, MCC opposes the proposed location of a long-term mercury management and storage facility at the Kansas City Plant due to the impacts associated with the facility's

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***Commentor No. 35 (cont'd): Stephanie Lindsay for
Marlborough Community Coalition***

urban location, the potential impacts on surface and groundwater on and near the facility, the speculative future move of the current tenants, and the recent health concern complaints regarding the Bannister Federal Complex, of which the Kansas City Plant is a part. MCC respectfully asks that DOE fully consider each of the above issues when selecting a permanent site location for the long-term management and storage of elemental mercury.

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**Commentor No. 36: Ross Melinchuk, Deputy Executive Director
Texas Parks and Wildlife Department**



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March 30, 2010

Mr. David Levenstein
Office of Environmental Compliance (EM-41)
U.S. Department of Energy
P.O. Box 2612
Germantown, MD 20874

RE: Draft Long-Term Management and Storage of Elemental Mercury
Environmental Impact Statement (EIS), Andrews County, Texas

Dear Mr. Levenstein:

Texas Parks and Wildlife Department (TPWD) has reviewed the above-referenced draft EIS and offers the following comments and recommendations regarding the candidate location in northwestern Andrews County, Texas. Please note that TPWD does not maintain detailed information on natural resources outside of Texas. Therefore, this letter does not address potential impacts at candidate sites discussed in the draft EIS located in Colorado, Idaho, Missouri, Nevada, South Carolina, or Washington. This letter is intended to address and help minimize potential impacts to natural resources within Texas and does not include a comparison of natural resource impacts at the candidate sites. TPWD recommends coordination with the state natural resource agencies in the above-listed states and New Mexico regarding potential impacts in their respective areas.

Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency on or after September 1, 2009 may be required by state law. For further guidance, see the Texas Parks and Wildlife Code, Section 12.0011 which can be found online at <http://www.statutes.state.tx.us/Docs/PW/hhm/PW.12.htm#12.0011>. For tracking purposes, please refer to TPWD project number 14808 in any return correspondence regarding this project.

Project Description

The proposed candidate site in Texas is the existing Waste Control Specialists, LLC (WCS) owned site located 31 miles west of Andrews, Texas, and 6 miles east of Eunice, New Mexico, adjacent to the New Mexico state line. The site is currently operated for the treatment, storage, and landfill disposal of various

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**Commentor No. 36 (cont'd): Ross Melinchuk, Deputy Executive Director
Texas Parks and Wildlife Department**

Mr. David Levenstein
Page Two
March 30, 2010

hazardous and radioactive wastes. Of the seven candidate sites considered in the draft EIS, the WCS site in Andrews County is the preferred alternative of the DOE.

The proposed project would entail the construction and operation of a facility for the long-term management and storage of elemental mercury in accordance with the Mercury Export Ban Act of 2008. The draft EIS assumes the facility will store up to 11,000 tons of mercury over a 40-year time frame. The facility would consist of a 20-foot tall building with reinforced, epoxy-sealed, and perimeter-curbed concrete floors and would accept 3-liter flasks and 1-metric-ton containers of elemental mercury. The mercury containers would be single, double, or triple stacked and stored in spill trays designed to contain at least 10 percent of the volume of mercury stored in each tray. Additional environmental analysis would be required if the quantity or duration of storage is to be extended.

Although the WCS site contains existing facilities for current operations, the proposed storage of elemental mercury would require the construction of a new facility on the 1,338-acre site. Approximately 250 acres of the site, 125 acres north of the existing facilities and 125 acres south of the existing facilities, are considered available for locating the mercury storage facility. Construction of the new facility would require the disturbance of approximately 7.5 acres of land for building construction and laydown areas. The building footprint would be approximately 3.9 acres. The existing site is surrounded by a 13,500-acre tract of land also owned by WCS.

Rare and Protected Species

Section 3.8.5.1 of the draft EIS states that reptile species present in the WCS project area include the Sand dune lizard (*Sceloporus arenicoitus*). Section 4.9.5.3 states that no threatened or endangered species are known or expected to exist within the area of the proposed mercury storage facilities at WCS. Although the Sand dune lizard is not currently listed as threatened or endangered under the Endangered Species Act (ESA), this species is a candidate for listing under the ESA. Attached is a U.S. Fish and Wildlife Service (USFWS) handout containing additional information and recommendations regarding the Sand dune lizard. Although this handout mainly addresses the occurrence of the Sand dune lizard in New Mexico, please note that this species has been documented in Andrews County, Texas.

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DOE acknowledges the commentor's concerns regarding potential impacts on the sand dune lizard and appreciates the information provided. Chapter 3, Section 3.8.5.4, has been revised to clarify that while some of the special status species identified could occur on or near the WCS property, none have been sighted or are expected to occur on the land parcels considered for constructing the mercury storage facility. Also, Chapter 4, Section 4.9.5.3, has been revised to reflect the commentor's suggested mitigation measures regarding the species. As reflected in revised Section 4.9.5.3, a site biological survey would be performed at WCS if the site is selected for locating a new mercury storage facility.

**Commentor No. 36 (cont'd): Ross Melinchuk, Deputy Executive Director
Texas Parks and Wildlife Department**

Mr. David Levenstein
Page Three
March 30, 2010

Recommendation: TPWD recommends the DOE survey for the Sand dune lizard in suitable habitat within the project area and avoid impacts to this species if found. Because the Sand dune lizard may burrow into the soil as a defense behavior when disturbed and during hibernation, direct impacts to individuals may occur during clearing and facility construction. Therefore, disturbance of sand shin-oak habitat should be avoided during project siting. TPWD recommends the DOE contact the New Mexico Department of Game and Fish regarding potential impacts to regional populations of this species. Potential impacts to the Sand dune lizard from accidental mercury spills or other contamination should be considered and mitigated in ecological protection and monitoring plans.

Section 3.8.5.4 of the draft EIS states that marginal habitat for the federal candidate for listing Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*) (LPC) does exist in the project area, but no occurrences have been reported. Please note that the LPC has been documented in northwestern Andrews County in 1992-1993, and anecdotal reports indicate that this species may have been seen in the general area as recently as 2004. On December 10, 2008, the USFWS changed the listing priority number of this candidate from a priority number 8 to a priority number 2. Listing priority numbers range from 1 to 12, and a species with a listing priority of 1 would have the highest priority for listing as threatened or endangered under the ESA. Additional information about the LPC is attached for your reference.

Recommendation: To help preclude listing the LPC as threatened or endangered, every effort should be made to avoid impacts to this species. TPWD recommends the DOE avoid the removal of suitable LPC habitat during facility siting, construction, and throughout the life of the facility. Because the addition of vertical structures may cause the LPC to avoid or abandon otherwise suitable habitat, constructing tall structures in areas that contain occupied and potential habitat for the LPC should be avoided. Potential impacts to the LPC from accidental mercury spills or other contamination should be considered and mitigated in ecological protection and monitoring plans.

Vegetation consisting of grass, cactus, and scattered brush possibly found in the project area could potentially support the state listed threatened Texas horned lizard (*Phrynosoma cornutum*). An additional indication of suitable habitat for this species would be the presence of its primary food source, the

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DOE acknowledges the commentor's concerns regarding potential impacts on the lesser prairie chicken and appreciates the information provided. Chapter 3, Section 3.8.5.4, has been revised to clarify that while some of the special status species identified could occur on or near the WCS property, none have been sighted or are expected to occur on the land parcels considered for constructing the mercury storage facility. Also, Chapter 4, Section 4.9.5.3, has been revised to reflect the commentor's suggested mitigation measures regarding the species.

DOE acknowledges the commentor's concerns regarding the Texas horned lizard and appreciates the information provided. Chapter 3, Section 3.8.5.4, has been revised to clarify that while some of the special status species identified could occur on or near the WCS property, none have been sighted or are expected to occur on the land parcels considered for constructing the mercury storage facility. Also, Chapter 4, Section 4.9.5.3, has been revised to reflect the commentor's suggested mitigation measures regarding the species. As reflected in revised Section 4.9.5.3, a preconstruction biological survey would be performed if WCS is selected as the location of a new mercury storage facility.

**Commentor No. 36 (cont'd): Ross Melinchuk, Deputy Executive Director
Texas Parks and Wildlife Department**

Mr. David Levenstein
Page Four
March 30, 2010

Harvester ant (*Pogonomyrmex* sp.). The Texas horned lizard is active during summer and early fall and hibernates in burrows approximately 3 to 6 inches deep from September or October until April or May. Additional information about the Texas horned lizard is attached for your reference.

Recommendation: TPWD recommends avoiding disturbance of the Texas horned lizard, its burrows, and colonies of the Harvester ant during clearing and construction. Please note that state listed species such as the Texas horned lizard may only be handled by persons with a scientific collection permit obtained through this Department. For more information on this permit, please contact the Wildlife Permits Office at (512) 389-4647. Potential impacts to the Texas horned lizard from accidental mercury spills or other contamination should be considered and mitigated in ecological protection and monitoring plans.

The Western Burrowing Owl (*Athene cunicularia hypugaea*) is dependant on the Black-tailed prairie dog (*Cynomys ludovicianus*) and other fossorial animals whose burrows are used for nesting and roosting. Impacts to the Western Burrowing Owl could include displacement as well as destruction of nests and eggs if ground disturbance occurs during the breeding season. Please note that the Western Burrowing Owl is a protected species under the Migratory Bird Treaty Act (MBTA), and take of this species is prohibited. The MBTA prohibits taking, attempting to take, capturing, killing, selling/purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts and nests, except when specifically authorized by the Department of the Interior. Additional information regarding the MBTA may be obtained through the USFWS Region 2 Migratory Bird Permit Office at (505) 248-7882.

Recommendation: Burrows should be surveyed for nesting burrowing owls prior to disturbance. If nesting owls or other migratory bird species are found, they must be dealt with in a manner consistent with the MBTA. TPWD recommends excluding clearing activities during the general bird nesting season, March through August, to avoid adverse impacts to this group.

A review of records in the Texas Natural Diversity Database (TXNDD) revealed no occurrences of rare or protected species within 10 miles of the project area. However, please note that the absence of TXNDD information in

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DOE acknowledges the commentor's concerns regarding the western burrowing owl and black-tailed prairie dog and appreciates the information provided. Chapter 3, Section 3.8.5.4, has been revised to clarify that while some of the special status species identified could occur on or near the WCS property, none have been sighted or are expected to occur on the land parcels considered for constructing the mercury storage facility. Also, Chapter 4, Section 4.9.5.3, has been revised to reflect the commentor's suggested mitigation measures regarding the species. As reflected in revised Section 4.9.5.3, a preconstruction biological survey would be performed if WCS is selected as the location of a new mercury storage facility.

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DOE appreciates the information provided by the commentor and has considered it as part of its review of Chapter 3, Sections 3.8.5.1 and 3.8.5.4. As reflected in revised Chapter 4, Section 4.9.5.3, a preconstruction biological survey would be performed if WCS is selected as the location of a new mercury storage facility.

**Commentor No. 36 (cont'd): Ross Melinchuk, Deputy Executive Director
Texas Parks and Wildlife Department**

Mr. David Levenstein
Page Five
March 30, 2010

an area does not imply that a species is absent from that area. This information cannot be substituted for on-the-ground surveys. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data.

Recommendation: Please review the attached TPWD Andrews County list as rare species in addition to those discussed above could be present depending upon habitat availability. These lists are now available online at http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species.php#1. If during construction, the project area is found to contain rare species, natural plant communities, or special features, TPWD recommends that precautions be taken to avoid impacts to them. The USFWS should be contacted for species occurrence data, guidance, permitting, survey protocols, and mitigation for federally listed species. For the USFWS rare species lists by county please visit <http://www.fws.gov/southwest/es/EndangeredSpecies/lists/>.

Determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence. If encountered during construction, measures should be taken to avoid impacting wildlife.

Water Resources

Section 4.9.3.1 of the draft EIS states the northern half of the WCS site drains toward a playa lake, and the southern half drains toward an ephemeral tributary to Monument Draw referred to in the draft EIS as the Ranch House drainage. The new facility would be sited to avoid these features and minimize risk from hydrologic and geologic hazards. The draft EIS also states that design, construction, and operation of the facility would incorporate

36-6

DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414). While no facility is fail-safe, site location, design, and construction of the proposed new mercury storage facility(ies) would be conducted in accordance with the location and performance standards for new RCRA-permitted facilities. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, or equivalent plans as mandated by state requirements for RCRA-permitted facilities, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Also, in accordance with Section 5 of the Act, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies).

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Chapter 4, Sections 4.9.5.1 and 4.9.5.3, have been revised to reflect the commentor's suggestion that mitigation measures should be implemented if rare or protected species, as listed in the Texas Natural Diversity Database, are encountered during construction. As reflected in revised Section 4.9.5.3, a preconstruction biological survey would be performed if WCS is selected as the location of a new mercury storage facility.

36-6

**Commentor No. 36 (cont'd): Ross Melinchuk, Deputy Executive Director
Texas Parks and Wildlife Department**

Mr. David Levenstein
Page Six
March 30, 2010

structural controls and practices to prevent the release of elemental mercury. The proposed design should also prevent any spills or other releases, should they occur as a result of abnormal operating conditions, from reaching soils or surfaces where they could be conveyed to surface waters or ground waters.

Playa lakes are important ecological elements as they provide habitat for thousands of migratory ducks and geese as well as vital stopover habitat for many avian species during migration. Other wildlife depends on the water and surrounding habitat the playas provide. There are over 61,000 playa lakes on the Ogallala Aquifer within the southern Great Plains, and they play an important role in aquifer recharge. When compared with interplaya areas, playa lakes provide relatively fast recharge and chemical transport to the Ogallala Aquifer (Gurdak 2009). Based on the map of potential sources of mercury in the U.S. provided in Figure 2-5 of the draft EIS, many transportation routes to the WCS facility could cross the southern Great Plains, and therefore areas with a high density of playa lakes. The ecological risk of spills and other releases of elemental mercury into surface water bodies during transport is evaluated in sections 4.9.10.1.2 and 4.9.10.1.3 of the draft EIS.

Recommendation: TPWD supports efforts to avoid direct adverse impacts to the playa lake and other surface water features in the project area during project siting and construction. Unavoidable impacts to these sensitive areas should be mitigated by compensating for any loss of wetland habitat. Potential impacts to the unique habitats provided by playa lakes should be considered in scenarios that evaluate the ecological risks of mercury spills and other releases into surface waters near the facility and across the southern Great Plains during transport.

Section 3.8.3.2 of the draft EIS states that the southern limit of saturated conditions in the Ogallala Aquifer is located on the northern border of the current WCS facilities and designated landfill areas. As stated above, potential locations for the construction of a new elemental mercury storage building at the WCS site include 125 acres north of the current WCS facilities and 125 acres south of the current WCS facilities. Therefore, it appears that construction within the northern 125 acres would be over the Ogallala Aquifer and construction within the southern 125 acres would be approximately 0.5 mile from the southern boundary of the Ogallala Aquifer. Section 4.9.3.2 of the draft EIS states that because the facility would be designed and operated to

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DOE acknowledges the commentor's concerns regarding potential impacts on playas and surface-water features. Both of the locations under consideration for locating a new mercury storage facility at WCS (the northern and southern sites) are located adjacent to the existing WCS facilities area. The locations were selected so as to avoid any sensitive features and otherwise to enable facility construction adjacent to previously disturbed or developed areas of the WCS facilities area. As described in Chapter 3, Section 3.8.3.1, the principal surface-water drainage feature on the site is an ephemeral draw located just south of the existing facilities area and north of the southern mercury storage site. In addition, playas are primarily confined to the northern part of the WCS property and north of the proposed southern site. Wetlands are limited to ephemeral pools located in the extreme northern and southern portions of WCS, as noted in Section 3.8.5.2.

In addition, the design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as stated in Chapter 4, Section 4.9.3.1. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, or equivalent plans as mandated by state requirements for RCRA-permitted facilities, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. An ecological risk analysis that included mercury releases into surface-water bodies is presented in Chapter 4, Section 4.9.10. The results of these analyses will be considered in the plans and procedures developed for the proposed mercury storage facility.

36-8

DOE acknowledges the commentor's concerns regarding potential impacts on groundwater resources from mercury spills during transportation and the commentor's observations regarding the location of the High Plains (Ogallala) Aquifer. The likelihood of spills into water bodies or similar features is discussed qualitatively in Appendix D, Section D.2.8, where it is conservatively concluded that the frequency of such events anywhere along a transportation route is moderate for truck transportation and low for railcar transportation.

36-6
cont'd

36-7

36-8

**Commentor No. 36 (cont'd): Ross Melinchuk, Deputy Executive Director
Texas Parks and Wildlife Department**

Mr. David Levenstein
Page Seven
March 30, 2010

prevent any spills from reaching the ground, there would be no impact on groundwater from routine operations.

Recommendation: TPWD recommends the DOE evaluate the risk of ground water contamination during transport, including the potential for mercury spilled or released during transport to enter the aquifer through pathways such as recharge associated with playa lakes. Due to the widespread use of water from the Ogallala Aquifer for irrigation and drinking water, TPWD recommends regular monitoring of ground water for mercury contamination.

Vegetation

Section 3.8.5.1 of the draft EIS states that vegetation in the facilities area of the WCS consists of low desert grassland populated with scattered trees and shrubs. The site's vegetation is classified mainly as mixed, shortgrass, and tallgrass prairies. Shrubs and grasses such as Mesquite (*Prosopis glandulosa*) and Buffalo grass (*Buchloe dactyloides*) dominate the majority of the landscape. Based on a review of the TPWD Vegetation Types of Texas (1984) map, the vegetation found in the study area consists of Harvard shin oak (*Quercus havardii*) - Mesquite Brush.

Recommendation: TPWD recommends that the removal of native vegetation for facility construction and be minimized to the extent feasible. Unavoidable removal of vegetation should be mitigated by revegetating disturbed areas with site specific plant species where feasible. The replacement of native plants will help control erosion, provide habitat for wildlife, and provide native species an opportunity to compete with undesirable, non-native, invasive plant species. A list of native plant species that can be tailored to fit the site requirements can be developed at <http://tpid.tpwd.state.tx.us/>.

Future Environmental Analysis

Section 1.6 of the draft EIS states that the Mercury Export Ban Act of 2008 authorizes the DOE to designate existing and/or new storage facilities at property either owned or leased by the DOE. The WCS site in Texas is privately owned by a commercial entity, while many of the other six candidate sites considered in the draft EIS are owned and/or managed by the DOE or

**36-8
Cont'd**

36-9

36-10

The possibility of spillage directly into a Texas river or waterway is further discussed in Chapter 4, Section 4.9.9.3.2. The overall conclusion is that a direct spillage of mercury into a body of water could be of concern if it is not cleaned up, but there is generally adequate time for such cleanup. Hence, the consequences to humans could be managed so that they are negligible or low. Given this assumption and the fact that the frequency of crashes with spills on any of the transportation routes is no more than moderate (and this is an upper bound on the frequency of spills directly into water), the risk would be negligible or low for all transportation routes. However, DOE recognizes that there is a large degree of uncertainty regarding this conclusion in the case of spillage into fast-flowing rivers. Therefore, the observation that risk would be negligible or low for all transportation routes should be tempered by noting that the uncertainty regarding this prediction of risk is very large, as discussed in Appendix D, Section D.6.1.2.

DOE also acknowledges the commentor's statement regarding groundwater monitoring for mercury contamination. At this time, DOE anticipates that monitoring would be conducted during regular inspections of the mercury containers to ensure that no containers are corroding or leaking and testing the airspace of the mercury storage facility for elevated concentrations of mercury vapors. However, the mercury storage facility would be subject to any additional monitoring requirements imposed under a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment.

DOE acknowledges the commentor's concerns regarding vegetation removal during facility construction and appreciates the information provided on native plant species. Chapter 4, Section 4.9.5.1, has been revised to indicate that disturbance of native vegetation would be minimized to the extent practicable during construction, and temporarily disturbed areas would be revegetated with native species to the extent possible.

Footnote 4 in Chapter 2, Section 2.4, of this *Mercury Storage EIS* states that DOE has interpreted Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) to authorize DOE to designate an existing and/or new storage facility (or facilities) at property owned or leased by DOE. If a non-DOE site is selected, DOE would acquire an appropriate ownership or leasehold interest in that facility(ies) to comply with Section 5 of the Act. This would apply to both WCS and the Hawthorne Army Depot.

36-9

36-10

**Commentor No. 36 (cont'd): Ross Melinichuk, Deputy Executive Director
Texas Parks and Wildlife Department**

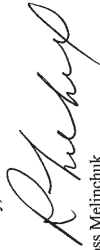
Mr. David Levenstein
Page Eight
March 30, 2010

Department of Defense. As stated above, if the amount or duration of mercury storage is modified, further environmental analysis will be required.

Request: Despite the private ownership of the WCS facility, if future analysis is required, TPWD requests that the DOE provide TPWD the opportunity to review environmental documentation and offer comments and recommendations on future project activities.

I appreciate the opportunity to provide comments and recommendations on this project. Please contact Julie Wicker of the Wildlife Habitat Assessment Program at (512) 389-4579 if you have any questions.

Sincerely,



Ross Melinichuk
Deputy Executive Director, TPWD

RM:JCW:gg.14808

Attachments

Literature Cited:

Gurdiak, J.J., and Roe, C.D., 2009, Recharge rates and chemistry beneath playas of the High Plains aquifer—A literature review and synthesis: U.S. Geological Survey Circular 1333, 39 p.

Informational attachments submitted with this comment document include the following:
(1) Texas Parks and Wildlife, Andrews County, Annotated County List of Rare Species, revised June 25, 2009; **(2) Notes for County Lists of Texas' Special Species, revised November 7, 2008;** **(3) Management of Texas Horned Lizards, by Scott E. Henke and Win. Scott Fair, Caesar Iceberg Wildlife Research Institute;** **(4) Dunes Sagebrush Lizard (Sand Dune Lizard), U.S. Fish and Wildlife Service;** **and (5) Lesser Prairie Chicken Wildlife Habitat Council and National Resources Conservation Source, September 1999 Fish and Wildlife Habitat Management Leaflet No. 6. This information was considered by DOE as it relates to analysis and discussion of ecological resources in this EIS, but since these informational documents do not include any direct comments on the EIS, they have not been reproduced in this CRD. These documents are included in the administrative record.**

Following publication of the EPA Notice of Availability for this *Final Mercury Storage EIS* in the *Federal Register*, the Texas Parks and Wildlife Department and all members of the public have at least 30 days to comment prior to DOE's making a decision. As observed by the commentor, if either the quantity of elemental mercury or the duration of the storage period changes, additional NEPA documentation would have to be prepared.

**36-10
cont'd**

Commentor No. 37: Melanie Barnes

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Tuesday, March 30, 2010 11:23 PM

Dear Mr. David Levenstein

Thank you for the opportunity to comment on the Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement Mercury Storage EIS DOE/EIS-0423D. It is my understanding that DOE has selected the commercial hazardous waste site operated by Waste Control Specialist as their preferred alternative. I have some concerns about this choice. I have listed my concerns below.

1. The presence of the Dockum Aquifer beneath the WCS hazardous waste site is of concern. Originally it was thought that the Dockum would not be considered for potable water however since the establishment of WCS there has been a study by the Texas Water Development Board about the feasibility of using water from the Dockum Aquifer. The fact that the water yielded by the aquifer is less than 3,000 milligrams of total dissolved solids at the WCS site means it is perfectly acceptable for cattle and other livestock as a water source. In addition with desalination it would be potable water for human consumption. Because of these potential uses for the groundwater resources in the area, I am concerned that the current monitoring is not sufficient for additional activities which have the potential to contaminate said groundwater resources.

2. The cumulative environmental impact of all the current and future planned activities in the vicinity of the WCS site is also of grave concern. Currently in addition to the radioactive and hazardous waste disposal at the WCS site there is the construction and operation of the National Enrichment Facility operation of the Wallace Quarry operation of the Lea County Landfill operation of Sundance Services an oilfield service company which is involved in recovering used oil from oilfield operations and the possibility of a nuclear fuel rod assembly plant plus other activities associated with oil and gas fields in the area. Again each of these activities are currently meeting the letter of law when it comes to monitoring environmental impacts on the land air water and biology BUT not with regards to the TOTAL impact. Thus the addition of mercury storage in the area only increases the possibility for contamination of the local water air and land resources. I would strongly URGE that DOE consider requiring additional monitoring to reflect the increased environmental impact.

37-1

DOE acknowledges the commentor's concerns about the Dockum Aquifer and the need for monitoring to avoid groundwater contamination. Chapter 3, Section 3.8.3.2, describes regional and local groundwater conditions, including the occurrence of the High Plains Aquifer and the Dockum Aquifer relative to WCS. Construction and routine operation of a mercury storage facility are not expected to have any impact on groundwater beneath WCS, as described in Chapter 4, Sections 4.9.3.1 and 4.9.3.2. The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility. At this time, DOE anticipates that monitoring would be conducted during regular inspections of the mercury containers to ensure that no containers are corroding or leaking and testing the airspace of the mercury storage facility for elevated concentrations of mercury vapors. However, the mercury storage facility would be subject to any additional monitoring requirements imposed under a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment.

37-1

37-2

DOE has performed a thorough cumulative impacts analysis as part of this *Mercury Storage EIS*, which is presented in Chapter 4, Section 4.11.3. The analysis was performed in accordance with the methodology presented in Appendix B, Section B.12.1, of this EIS. DOE acknowledges the commentor's concerns regarding cumulative impacts in the WCS region and the desire for additional monitoring of environmental media to detect contamination.

At this time, DOE anticipates that monitoring would be conducted during regular inspections of the mercury containers to ensure that no containers are corroding or leaking and testing the airspace of the mercury storage facility for elevated concentrations of mercury vapors, as noted in Chapter 2, Section 2.3.2, of this EIS. However, the mercury storage facility would be subject to any additional monitoring requirements imposed under a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment.

37-2

Commentor No. 37 (cont'd): Melanie Barnes

3. Another item that I do not feel was addressed in much detail is the potential from extremely large rain events. These events can happen quickly and with volumes as much as 8 of rain in a few hours. The volume of runoff from these events is not usual BUT has the potential to sweep an area clean and move contamination from hazardous wastes a long distance in a short period of time. I feel that DOE should require a monitoring plan for immediate sampling of these events and the runoff. In addition there should be monitoring stations set up on drainages that an event like this would drain into.

37-3

4. Along these same lines are the potential for contamination of the atmosphere from mercury vapors. I realize the facility is constructed to prevent this possibility however since we have the potential for strong winds that can carry dust and vapors very long distances in this part of the country it should be required that monitoring stations outside of the property be established to ensure that there is no problem associated with the facility.

37-4

I hope you will consider these comments seriously and also consider not just doing the REQUIRED monitoring but instead go the extra step and truly ensure the safety of the American citizens who are willing to take the risk for the rest of the country. This area of the country is being increasingly viewed as a place to dump all of our problems like mercury radioactive wastes and hazardous wastes. It is understandable that a small population and long distances from a major population center makes this site attractive HOWEVER that is no reason to unnecessarily ignore the safety of those citizens who live in the area. NOR is it a reason to WASTE and or THREATENED the precious water resources of the area by saving a few pennies on monitoring to ensure that safety.

37-5

Sincerely yours,
 Melanie Barnes, PhD
 Melanie Barnes
 2815 23rd St
 Lubbock, TX 79410
 XXX-XXX-XXXX
 melanie.barnes@ttu.edu

DOE acknowledges the commentor's concerns regarding severe weather and runoff from heavy precipitation. Severe weather was evaluated with respect to the proposed construction and operation of a mercury storage facility, as described in the meteorology sections of Chapters 3 and 4. For WCS, Chapter 3, Section 3.8.3.1, specifically describes the site flood hazard, while Section 3.8.4.1 summarizes the climate of the region and severe weather potential, including heavy rainfall. Chapter 4, Sections 4.9.3.1 and 4.9.4.1, note that the proposed mercury storage facility would be designed and constructed to avoid any drainage features that could be subject to flooding and to safeguard the facility from severe weather events. As further described in Chapter 2, Section 2.2.1, the new mercury storage facility would be a weather-tight structure with a reinforced-concrete floor, strong enough to withstand the heavy loads from mercury storage. The floors would also be curbed and treated with a sealant to add strength and spill containment properties. The facility would not be subject to run-on or runoff from heavy precipitation events. Normal operation of a mercury storage facility is not expected to have any impact on surface water or stormwater, as operations would be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan.

37-3

The analysis of facility accidents conducted for this EIS also addresses the potential for accidental release of mercury resulting from high winds and tornadoes, floods, and lightning strikes, as presented in Appendix D, Section D.2.5. Please see Chapter 4, Sections 4.2.9.1.4 and 4.9.9.2, for the results of all accident analyses, including severe weather scenarios considered for the mercury storage facility at WCS. At this time, DOE anticipates that monitoring would be conducted during regular inspections of the mercury containers to ensure that no containers are corroding or leaking and testing the airspace of the mercury storage facility for elevated concentrations of mercury vapors. However, the mercury storage facility would be subject to any additional monitoring requirements imposed under a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment.

37-4

Chapter 4, Section 4.9.4.2, describes the potential impacts on air quality from siting a mercury storage facility at WCS. Facility construction or modification and routine operations would have negligible to minor impacts on air quality, and air pollutant emissions are not expected to exceed air quality standards. Amounts of mercury vapor anticipated to be emitted during normal facility operations

Commentor No. 37 (cont'd): Melanie Barnes

would have a negligible effect on workers and the public, with a negligible risk to human health. Mitigation measures are presented in Section 4.12. See response to Comment No. 37-3 with regard to monitoring.

37-5

DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. DOE would perform regular facility inspections and any environmental monitoring required by a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

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Commentor No. 38: Kim James

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Wednesday, March 31, 2010 10:15 AM

The fact that there are leakage problems in Andrews is a grave concern for the area. The inaccurate information regarding the safety of the site needs to be set out for the area residents. Then you can get comments about the facts.

38-1

38-1 Chapter 3, Section 3.8.9.2, describes the accident history of WCS. This section notes that WCS has had no spills, fires, explosions, leaks, or other such incidents that have resulted in offsite impacts. However, spills and leaks from waste containers and equipment have occurred in the operational area of the site, but with only localized spread of released material. The numerous environmental permits under which WCS operates are set forth in Chapter 5, Section 5.3.7.

Potential impacts of constructing and operating a mercury storage facility at WCS, which range from none to minor, are described in Chapter 4, Section 4.9, and summarized in Chapter 2, Section 2.7.1.

Commentor No. 39: Peggy Pryor

**EIS comments on Mercury Storage in Andrews, Texas
Peggy Pryor**

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Commentor No. 39 (cont'd): Peggy Pryor

39-1 DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

DOE and its contractors have independently reviewed and evaluated the available information in preparing this *Mercury Storage EIS*. DOE and most Federal and state agencies do not conduct their own environmental studies for use in EISs. Rather, they rely on studies prepared by independent, reputable sources from government, academia, and industry. Many of these studies are prepared by professionals that maintain state licenses in their areas of study, including professional engineers and certified professional geologists. These professionals certify the accuracy of the documents they prepare under the penalty of law.

39-2 DOE believes that it has adequately described geology, geologic hazards, and high winds with regard to the hazards they pose to the storage of elemental mercury. Chapter 3, Section 3.8.2.1, describes the geologic strata that underlie WCS, and Section 3.8.2.3 summarizes the geologic hazards in the vicinity of WCS, including the presence of regional subsidence features attributable to salt dissolution at depth in the Permian Basin. However, no subsidence features have been identified in the vicinity of WCS; the closest such features are located about 24 to 32 kilometers (15 to 20 miles) from WCS. Section 3.8.4.1 summarizes the climate of the region and severe weather potential, including high winds. The proposed long-term mercury storage facility would be located, designed, and built in accordance with local building codes, and design factors to mitigate potential impacts from land subsidence and wind loads would be considered. A geotechnical study would be conducted to confirm site geologic characteristics for facility siting and engineering purposes, as noted in Chapter 4, Section 4.9.2.1.

39-3 DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to participate. Throughout the *Mercury Storage EIS* process, DOE conducted a vigorous outreach program to inform the public and solicit input: 17 public meetings/hearings were held near the seven candidate mercury storage locations, including public hearings on the draft EIS in both Eumice, New Mexico, and Andrews, Texas. DOE considered all comments received from members of the public during the comment period on the draft EIS in preparing this final EIS.

Peggy Pryor
1420 North West 12th
Andrews Texas 79714

Comments on EIS

I was under the assumption that the EPA DOE NRC was the brain trust of our nuclear and environmental trust, which left no stone unturned. Today, I can truly say you disappoint me and the work you do. I shame your report, you based it on the very reports we question.

The path of least resistance is evident in your report and what your commentators have shown me. Hawthorne, "we will have to negotiate with Native American tribes" I guess it's too hard for your people or quick enough. I suggest you need to make decisions based on expertise not biased reports payed for by a private company and a millionaire.

I see were Ulan won there bid to not receive any more waste. Information you probably already know. Mr. Egan was paid by WCS (Valhi) to Bring WCS to Andrews and the Indians used him to win their case from isn't it money talks. We have none. We lose.

You did not have people to come and do independent studies you looked at papers We asked you to get the National Geographic Survey the last I can remember was early 80's. People to come and do independent study and you looked thru papers again no new independent studies... We ask to you to see if the sink holes could happen in Andrews. You said they were in Kermit 40 miles away it doesn't concern Andrews. Duh! I ask about the possibility of it sink holes happening here looking through old reports and pay for studies by a for money organization. The easiest path of resistance

. Clay is now the nuclear solution WOW that's scary. Clay doesn't crack under ground, that's your answer? No wonder everything leaks and new brown fields are made every day. The Texas wind and heat can do funny things the wind doesn't get to 35 M.P.H. Are you real? I have lived here since I was 2(I'm 59 now) it gets higher than that in gusts....

You and The TECO act as if Eumice doesn't exist. The people are not rich either their jobs just like in Andrews are dependent on them keeping their mouths shut. NO UNIONS in West Texas ever wondered why because you don't work if you buck the system. I have no money unable to work that's why I can fight this, and not be intimidated I'm o called names at Christmas a Grinch to be exact. Letters we received a little more graphic. (Andrews NEWS look it up) WCS Mr. Tom Jones said I and my sister lay off 25 of their workers (like we could fire them). Not because they have money issues Mr. Simmons lost 189million in a law suit in Dallas (look it up) Dallas morning news..

Since you like to look at papers already written I am sending you more please read them and give your helper John M. a copy.

The train you speak so highly of has already toppled over it was in the Eumice paper or sun Hobbs Times. Just a little accident not much THIS time...

Did you look thru the TECO reports on past accidents are they edited for your eyes only, did you see the exposure to 40 employees? It will take many years of testing to sort that one out.

39-1

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39-4

39-5

Commentor No. 39 (cont'd): Peggy Pryor

39-4	DOE recognizes that a railcar transportation accident is possible; several sections in this <i>Mercury Storage EIS</i> consider such an accident (e.g., Appendix D, Sections D.2.7, D.4.3., D.4.4, and D.4.5.). In addition, Chapter 4, Section 4.9.9.3, shows that the likelihood of a railcar transportation accident in the vicinity of the site severe enough to cause a spill of mercury (with or without a fire) is negligible over the assumed analysis period of 40 years; hence, the corresponding risk to members of the public would be negligible.
39-5	Protection of the environment, cleanup of pollution, and protection of public health and safety are of paramount importance to DOE. DOE would take all necessary steps to verify regulatory compliance, investigate any instances of nonconformance, and ensure that necessary corrective and preventive actions are taken to ensure safe and secure operations at facility(ies) designated for the long-term management and storage of elemental mercury.
39-6	Appendix D, Sections D.2.4.5 and D.2.4.6, discuss the potential for fires in the mercury storage building. These sections conclude that the predicted frequency of fires that lead to a release of mercury from the storage building is in the Frequency Level I (negligible) range and that the associated risks are therefore negligible. Several factors contribute to this conclusion: (1) forklifts would be electric, so they would not provide a source of fuel for a fire; (2) there would be no fuel lines or fuel storage vessels inside the mercury storage building; (3) there would be no flammable materials in the construction of the building; (4) administrative controls would limit the amount of flammable material kept in the building; (5) the wooden pallets that contain the mercury flasks would be treated with fire-retardant coatings; and (6) there would be a fire suppression system in place.
39-7	Thank you for your comment. As described in Chapter 1, Section 1.5, this <i>Mercury Storage EIS</i> was prepared in accordance with NEPA, as amended (42 U.S.C. 4321 et seq.); the Council on Environmental Quality's NEPA implementing regulations (40 CFR 1500-1508); and DOE's NEPA implementing procedures (10 CFR 1021). In addition, in its Federal review capacity, EPA rated this EIS "LO (Lack of Objections)," its highest rating. DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to participate. Throughout the <i>Mercury Storage EIS</i> process, DOE conducted a vigorous outreach program to inform the public and solicit input: 17 public meetings/hearings were held near the seven candidate mercury storage locations, and information was provided in the

39-6

Did you only look at what it takes to get your job done? Did you see the fire at the site? They haven't even started yet!
I must say you really gave me the impression I was not very credible you didn't even know about the area the history from locals that was sets on Wind Mill Hill, Did WCS I was their on the first photo opt with some environmentalist and when it rained the night before and water was standing Wes had people out pumping it out and in my native said just let the sun dry it out and I was pounced on like a June bug they said it would never dry out. I new from that day .all the stuff I've been taught about the land and the Ogallala were going to be rewritten.

39-7

No I am not impressed with your report. This report is an example of putting papers together written just right to get what is needed for your bosses to get the job done. You wonder why we don't trust you. Your report is an example of what is Wrong. Citizens in small communities suffer the mistakes and because there's not many of us we don't count.

39-8

No money, no one to look out for the people just get the job done cause they mandated it .Where is the one with guts to stand up and say No this is not Right you'll never find it among your group that why so much waste is being spread around and more the poor community adult and children and those to be born will suffer just admit This is not a solution not even a band aid, this is a Travesty. Continue with your faux mission statement to find the best answers While spreading your pain and destruction to mother earth pretend you believe what you are saying, but we are really smarter than that, just not rich enough to prove it You did proved beyond a shadow of a doubt. That money can get you the right reports and the right support and the right Politian's and the right results whether true are not. You seem to be saying will try this again time if it doesn't work will just move it to somewhere else .and do it again and again and....
Mercury, didn't I also give you a paper about 3 miles of cracks in a building? I guess as long as it not your building it doesn't count. Another solution or path of least resistance.

My reports are included I used your EIS for an example reports by people I trust.
Peggy Pryor



Commentor No. 39 (cont'd): Peggy Pryor

form of fact sheets, posters, and website postings. Toll-free fax, mail, and email were available for submitting comments and questions. All comments, both oral and written, were considered in completing this final EIS.

39-8

DOE acknowledges the commentor's concerns about cracks in buildings. Chapter 2, Section 2.2.1, describes the construction of a new mercury storage facility. It would be located in an area under the control and authority of DOE that would include appropriate fencing and security. The building construction would be primarily of noncombustible materials and would include a fire suppression system (e.g., sprinkler). The new facility would have a reinforced-concrete floor, strong enough to withstand the heavy loads from mercury storage. The floors would also be treated with an epoxy sealant to add strength and make them impervious to mercury leaks and spills and water from fire suppression systems. The exterior of the storage facility would likely be sheet metal panels fastened to structural steel supports and connected together to form a weather-protected structure. Lighting, ventilation, fire suppression, and security monitoring systems would be incorporated into the facility design. As described in Section 2.3.2, monitoring of the storage facility and regular inspections of mercury containers would be integral to safe and secure operation of the facility. DOE would perform regular facility inspections and any environmental monitoring required by a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment. Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) specifically authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws.

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**Commentor No. 40: Jim Pokrandt, Chair
Colorado Basin Roundtable**

MAR. 31. 2010 11:56AM CRWCD NO. 693 P. 1

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David Levenstein, Document Manager
Office of Environmental Compliance (EIM-41)
U.S. Department of Energy
Post Office Box 2612
Germantown, MD
20874

March 31, 2010

RE: Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement

Dear Mr. Levenstein,

The Colorado Basin Roundtable was created by the Colorado General Assembly in 2005 to facilitate discussion and solutions to water supply and water-related environmental and recreational issues in Colorado. We are one of nine such Roundtables. We represent water users, local governments, recreational and environmental interests on the main stem of the Colorado River from the headwaters counties at the Continental Divide to the Utah state line.

We oppose the Office of Legacy Management's consideration of the Grand Junction, Colo., Disposal Site to store toxic mercury waste. We base our concern with the need to protect the Colorado River and its tributaries. One of the potential transport corridors of the mercury waste would be along Interstate 70, which parallels the Colorado River. This corridor is rife with naturally occurring rock slides and avalanches that heighten the potential waste could be swept into the river. As well, the corridor includes difficult climbs and descents on snowy mountain passes, a fact that produces many, many motor vehicle accidents and the potential for waste to enter the ecosystem.

One of our constituents, the Pitkin County Board of County Commissioners, wrote a letter to you on this matter that says the Summary and Guide for Stakeholders references a Memorandum of Understanding (MOU) from 1996 between Mesa County and the DOE that declares it is Mesa County's understanding of the MOU that "...the agreement [MOU] is clear and that [the] Grand Junction Disposal Site is only to be used for uranium mill tailings, almost exclusively of local origin. Mesa County further asserts that the DOE assured the citizens of Mesa County that the disposal site would never be used to store any wastes other than mill tailings."

40-1 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at GJDS.

40-2 The likelihood of spills into water bodies is discussed qualitatively in Appendix D, Section D.2.8, where it is conservatively concluded that the frequency of such events anywhere along a transportation route is moderate for truck transportation and low for railcar transportation. The potential for spillage into the Colorado River and other Colorado waterways is explicitly recognized in that section.

This possibility is further discussed in Chapter 4, Section 4.3.9.3.2. DOE recognizes that the route to GJDS contains the greatest distance of any route where there is potential for spillage into a river to occur. The overall conclusion is that a direct spillage of mercury into a body of water could be of concern if it is not cleaned up, but there is generally adequate time for such cleanup. Hence, the consequences to humans could be managed so that they are negligible or low. Given this assumption and the fact that the frequency of crashes with spills on any of the transportation routes is no more than moderate (and this is an upper bound on the frequency of spills directly into water), the risk would be negligible or low for all transportation routes. However, DOE recognizes that there is a large degree of uncertainty regarding this conclusion in the case of spillage into fast-flowing rivers. Therefore, the observation that risk would be negligible or low for all transportation routes should be tempered by noting that the uncertainty regarding this prediction of risk is very large, as discussed in Appendix D, Section D.6.1.2.

40-3 DOE acknowledges the commentor's statement regarding the 1996 Memorandum of Understanding (MOU) between DOE and Mesa County concerning GJDS (DOE and Mesa County 1996). As noted in Chapter 1, Section 1.7.1, DOE acknowledges that the MOU stipulates that DOE must consult with Mesa County regarding decisions related to operations at the site. DOE will evaluate the applicability of the 1996 MOU to the long-term management and storage of elemental mercury at GJDS to determine whether the 1996 MOU would affect the viability of the selection of this site as the location for a mercury storage facility.

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**Commentor No. 40 (cont'd): Jim Pokrandt, Chair
Colorado Basin Roundtable**

NO. 693 P. 2

CRWCO

MAR. 31. 2010 11:56AM

COLORADO BASIN ROUNDTABLE
P.O. BOX 1120
GLENWOOD SPRINGS, CO. 81602

INCLUDE COUNTY, STATE COUNTY
ZIP CODES, YES OR NO

THE ENERGY, CIVIL
AND ENVIRONMENTAL
DIVISIONS OF THE
DEPARTMENT OF ENERGY

We join Pitkin County in encouraging the DOE to honor this agreement as a primary reason to remove this storage site from the list of available options for long-term storage of elemental mercury. We also join Colorado Governor Bill Ritter and other concerned Colorado citizens and communities to oppose any shipment of elemental mercury waste to the DOE disposal facility for storage on Colorado's Western Slope.

This dangerous and harmful material should be stored close to the point of origin rather than being transported thousands of miles for permanent burial in Colorado.

Sincerely,



Jim Pokrandt
Chair
Colorado Basin Roundtable

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cont'd

40-4

DOE acknowledges the commentor's statement that elemental mercury should be stored close to its point of origin. Note that the Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored at or close to its point of origin, thereby reducing its movement around the country. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. The scope of this *Mercury Storage EIS* involves the storage of elemental mercury; it would not be buried or otherwise disposed of. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

Commentor No. 41: Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico



April 1, 2010

Mr. David Levenstein
EIS Document Manager
US Dept. of Energy
P.O. Box 2612
Germantown, MD 20874

Toll Free Fax: 1-877-274-5462

Via email to: egamerc@eais.com

And at: <http://www.mercurystorageeis.com/comment.asp>

Re: DOE/EIS-0423D

Dear Mr. Levenstein,

Nuclear Watch New Mexico respectfully submits these comments on the Department of Energy's Long-Term Management and Storage of Elemental Mercury draft Environmental Impact Statement (EIS).

The draft EIS states that one objective is to meet the requirements of the Mercury Export Ban Act of 2008.

DOE's objectives for the long-term management and storage of mercury are important to DOE, EPA, and the public. They are, in part, as follows:

- Protect human health and the environment and ensure safety of the public and facility workers.
- Meet the requirements of the Mercury Export Ban Act of 2008.
- Comply with applicable Federal, state, and local statutes and regulations. (Pg. 1-5)

However, the EIS misquotes the Mercury Export Ban Act of 2008. For instance -
· The U.S. Department of Energy (DOE) must designate a facility(ies) for long-term management and storage of mercury generated in the United States and have it operational by January 1, 2013. (Summary Pg. 1)

However, the actual language is -

SEC. 5. LONG-TERM STORAGE.

(a) DESIGNATION OF FACILITY.

- (1) IN GENERAL.—Not later than January 1, 2010, the Secretary of Energy (referred to in this section as the "Secretary") shall designate a facility or facilities of the Department of Energy, which shall not include the Y-12 National Security Complex or any other portion or facility of the Oak Ridge Reservation of

Nuclear Watch of New Mexico, 551 W. Cordova #808, Santa Fe, NM, 87505

April 1, 2010

41-1

Footnote 4 in Chapter 2, Section 2.4, of this *Mercury Storage EIS* states that DOE has interpreted Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) to authorize DOE to designate an existing and/or new storage facility(ies) at property owned or leased by DOE. If a non-DOE site is selected, DOE would acquire an appropriate ownership or leasehold interest in that facility(ies) to comply with Section 5 of the Act. Note that page 1 of the "Summary and Guide for Stakeholders" describes portions of the Act, but does not quote the Act.

The details of the ownership or leasehold arrangement are uncertain, but would not have a bearing on the environmental impacts of mercury storage, and therefore are not presented in this EIS. Examples of DOE's use of leased facilities include the Albuquerque Transportation and Technology Center and the Kansas City Responsive Infrastructure Manufacturing and Sourcing Project, both to be constructed by private developers and leased by the U.S. General Services Administration for DOE (Honeywell 2008). As described in Chapter 1, Section 1.2, DOE would take title to any mercury stored in the facility(ies) and therefore would be responsible (financially and otherwise) for its long-term management.

41-1

**Commentor No. 41 (cont'd): Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico**

the Department of Energy, for the purpose of long-term management and storage of elemental mercury generated within the United States.
This clearly states that "a facility or facilities of the Department of Energy" shall be designated for mercury storage.

And the Act is misquoted in other places -

The Act specifies that the DOE-designated mercury storage facility(ies) shall not include Y-12 National Security Complex or any other portion or facility at the Oak Ridge Reservation in Oak Ridge, Tennessee (42 U.S.C. 6939f(a)(1)). (Summary Pg. 17)

Explain the process whereby a "DOE facility or facilities", as specified in the Act, becomes a "DOE-designated" facility as specified in this EIS.

The draft EIS attempts to address this issue -

DOE has interpreted Section 5 of the Act to authorize DOE to designate existing and/or new storage facilities at property either owned or leased by DOE. (Pg. 1-9)

Is WCS going to lease or sell part of the site to DOE to store Mercury? The details of this arrangement must be explained in this EIS. Financial assurance must be part of this arrangement. Please include other examples of DOE purchasing or leasing private facilities. Please explain DOE's authority to reinterpret this Act or any Law. Please include the applicable DOE regulations. Is DOE required to explain to Congress any reinterpretation of an act?

There is an admission that DOE's interpretation of Section 5 of the Act is outside of the scope of what Congress has approved.

DOE may sometimes include reasonable alternatives that are outside the scope of what Congress has approved. (Pg. 1-9)

An explanation of the administrative process that concluded leasing or purchasing part of WCS was a reasonable alternative must be included in this EIS. Please include the applicable DOE regulations.

Please explain why only a 10-mile radius of influence was assessed.

For example, impacts on historic resources were evaluated at specific facility locations within each site, whereas human health risks to the general public were assessed for an area within a 16-kilometer (10-mile) radius of the facility location. (S-6)

Please explain the characterization program.

Inspections. Upon arrival at the mercury storage facility, concentrations of mercury vapor would be measured to verify that they are below actionable levels. A visual inspection would follow to detect obvious problems that may have occurred during transport. If initial inspections and manifest documentation are acceptable, the mercury would be moved to the Shipping and Receiving Area where additional visual inspections would be performed. The mercury would then be moved to the Handling Area for additional verification that it meets waste

41-2

Chapter 1, Section 1.6, states the following:

Chapter 2, Section 2.6, describes candidate site and building options considered but eliminated from detailed analysis. The Act specifies that the DOE-designated mercury storage facility (or facilities) shall not include Y-12 or any other portion or facility of the Oak Ridge Reservation in Oak Ridge, Tennessee (42 U.S.C. 6939f(a)(1)). DOE may sometimes include reasonable alternatives that are outside the scope of what Congress has approved. However, in the case of this action, where Congress has expressly prohibited a potential alternative, DOE finds that it is reasonable to forego its consideration. Accordingly, DOE has eliminated this option as an action alternative.

This statement is about analysis of mercury storage at Y-12 and not leasing or purchasing a portion of WCS.

41-3

The general impacts assessment methodology used in developing this *Mercury Storage EIS* is presented in Appendix B, Methods for assessing environmental impacts vary for each resource area (discipline) analyzed, as do the associated regions of influence considered for each resource area. The region of influence is simply the geographic area where impacts are expected to occur to a resource, as described in "Summary and Guide for Stakeholders," Section 2, and in Chapter 3, Section 3.1. For historic resources, the region of influence is the site itself because that is where ground-disturbing activities would take place. However, for the occupational and public health and safety risk and environmental justice analyses, a 16-kilometer (10-mile) radius was selected to provide a conservative measure to compare potential impacts across all sites because any adverse human health consequences to offsite populations resulting from normal operations and facility accidents are expected to be limited to a distance of well under 1.6 kilometers (1 mile), as discussed in Chapter 4, Sections 4.3.9.1 and 4.3.9.2. Nevertheless, the occupational and human health risk assessment performed for normal facility operations, accidents, and transportation sets no limit on the distance to which the impact would be determined.

41-4

Transportation of mercury would be in accordance with applicable RCRA hazardous waste and U.S. Department of Transportation hazardous materials shipping requirements. RCRA has rigorous requirements for the characterization of waste prior to shipment by the generator. Chapter 2, Section 2.3, of the *Interim Guidance* (DOE 2009a) discusses in detail generator requirements for shipping mercury to a DOE long-term storage facility(ies), which includes steps that must be completed

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**Commentor No. 41 (cont'd): Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico**

acceptance criteria (e.g., 99.5 percent purity). Containers and pallets that pass the acceptance/verification process would be placed into long-term storage. Containers that fail inspection would be returned to the sender. (S-16)
Please use the WIPP model and characterize the shipments BEFORE shipping to avoid the need to return to sender. The actual actionable levels of vapor must be stated in this EIS.

The Environmental Impacts of Waste Control Specialists (WCS) Must Be Reexamined

- WCS's licenses are with the state of Texas. Most of the reference documents cited are older documents written by WCS. DOE must independently reach its own conclusions about the environmental impacts of storing mercury at WCS.
- DOE must independently examine the environmental impacts of storing mercury at WCS and NOT take any previous analyses by other entities at face value.
- DOE must independently assess the quality of any WCS documents used as references in this EIS.

The Site Conditions at WCS Must Be Reexamined

- WCS's licenses are with the state of Texas. DOE must independently reach its own conclusions about the site conditions at WCS.
- DOE must independently examine the environmental impacts of storing mercury at WCS and NOT take any previous analyses by other entities at face value.
- DOE must independently assess the quality of any WCS documents used as references in this EIS.

Alternatives to a Generic Storage Facility Must Be Analyzed

- The scoping presentation for this EIS describes a generic facility. Some sites have proposed using existing facilities.
- Existing facilities under consideration must be thoroughly analyzed. Please include construction details of the existing facilities.

Explain the Financial Details

- The Mercury Export Ban Act requires DOE to assess fees based upon the pro rata costs of long-term management and storage.
- Please explain these costs.
- Compare the alternatives and analyze which sites would be cheaper.
- Please explain the funding mechanism.
- Private users will be encouraged to ship to the facility but will have to pay for storage. Who pays for storage of DOE mercury and what is the funding mechanism?
- WCS is seeking \$75 million in bonds from Andrews County, TX. How would the storage of mercury affect the repayment of the bond?
- Will financial assurance be required of WCS?
- What are projected fees that the federal government will pay to WCS if it is selected for long-term storage of mercury?
- Describe any lease or purchase arrangements.

prior to shipping. In the unlikely event that a shipment of mercury is found not to meet established waste acceptance criteria when received at the DOE long-term mercury storage facility(ies), the shipment would be returned to the generator, at the generator's expense. As stated in Chapter 4, Section 4.3, of the *Interim Guidance*, mercury vapor concentrations shall be measured near the containers in the Shipping and Receiving Area and compared with the American Conference of Governmental Industrial Hygienists' (ACGIH's) guidelines, prior to transferring mercury into the storage areas. According to Appendix D, Sections D.1.1.2.5 and D.1.4, of this *Mercury Storage EIS* and Chapter 5, Section 5.3.2, of the *Interim Guidance*, the ACGIH threshold limit of mercury vapor is 0.025 milligrams per cubic meter, as a time-weighted average for a normal 8-hour workday.

DOE and its contractors have independently reviewed and evaluated the available information in preparing this *Mercury Storage EIS*. DOE and most Federal and state agencies do not conduct their own environmental studies for use in EISs. Rather, they rely on studies prepared by independent, reputable sources from government, academia, and industry. Many of these studies are prepared by professionals that maintain state licenses in their areas of study, including professional engineers and certified professional geologists. These professionals certify the accuracy of the documents they prepare under the penalty of law. DOE believes that it has adequately described the existing environment at WCS.

Chapter 2, Section 2.2.2, discusses which candidate sites propose to use existing facilities and acknowledges that minor modifications to these buildings may be necessary to meet RCRA permitting requirements for the storage of elemental mercury. Appendix C, Table C-1, presents important construction details of the existing buildings proposed at candidate sites and potential modifications that might be required prior to accepting mercury for long-term storage.

Costs are not presented in this *Mercury Storage EIS*. As described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the

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**Commentor No. 41 (cont'd): Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico**

- All Impacts On Surface And Groundwater Must Be Analyzed**
Construction of a new mercury storage facility would require approximately 1,270,000 liters (336,000 gallons) of water over the 6-month construction period for dust suppression and for potable and sanitary needs. (Pg. 2-41)
- Where will the construction water come from?
 - Describe the storm water pollution prevention.
 - The actual location of the Ogallala Aquifer must be determined as to whether it is under WCS or not.
 - There is no reason to consider the most recent map, issued 7 months after the previous (December, 2006, and April, 2006), to be the final version. This controversy must be resolved by an independent, accurate scientific survey sponsored by DOE.
 - Please include the map of the Ogallala that was used in determining that this aquifer is not located under the site.
 - The WCS non-potable water supply is obtained from a well in the Santa Rosa Formation. Explain the effects of WCS water use and drawdown due to pumping in the Santa Rosa.

41-8

- Analyze Socioeconomic Impacts – Please Don't Just Characterize**
 The draft EIS does a good job of characterizing the socioeconomic data for the projected sites, but falls a bit short on analyzing the impacts of the proposed action at each site. If the impacts are determined to be negligible, please state that.
- Is there enough housing for the construction workers? Will housing prices increase?
 - Will the increased traffic be a burden?
 - How does expanding WCS affect future land use in the area?
 - Where do the economic benefits accrue?
 - How much of every dollar spent for mercury storage would actually stay in the local region of the selected site?
 - All existing places that are proposed to ship mercury to the proposed facilities, where mercury is now stored, must be examined to compare to relative socioeconomic impacts.

41-9

- Impacts from accidents at nearby facilities, including the National Enrichment Facility must be analyzed.**
- Include all other known existing and possible future contaminants at each facility that would be involved in an accident.

41-10

- Status of Compliance With All Applicable Federal, State and Local Statutes and Regulations**
- Describe the two-year gap from when the facility starts up (Jan. 1, 2013) and when it will be RCKA permitted (Jan. 1, 2015) as described in the scoping presentation.

41-11

Place Reference Documents Online

- Nuclear Watch of New Mexico
Mercury Storage draft EIS Comments, April 1, 2010

4

generators of mercury. In addition, the generators of the mercury will be responsible for the costs of shipping mercury to the DOE storage facility(ies).

DOE notes the commentor's concerns about long-term funding for operation of the mercury storage facility. The U.S. Congress and the President are responsible for determining year-to-year funding priorities for Government programs. DOE spends funds in accordance with congressional intent. DOE is committed to the following near- and long-term objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations.

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

DOE acknowledges the commentor's concerns regarding water use and groundwater drawdown, impacts on stormwater, and location of the High Plains (Ogallala) Aquifer. Chapter 4, Section 4.9.7.2, addresses the water demands for construction and operation of a mercury storage facility at WCS. Water demands would be met from WCS's existing supply sources, which are described in Chapter 3, Section 3.8.7.4. Construction activities and subsequent operations would have a negligible impact on water use compared with current site operations, with construction increasing site water use by about 5 percent annually and operations increasing site water use by about 0.4 percent.

41-8

As summarized in Chapter 2, Section 2.3.2, and further described in Chapter 4, Section 4.9.3.1, best management practices, including adherence to an integrated contingency plan and spill prevention, control, and countermeasures plan for mercury storage, would be employed to prevent spills and releases, including the use of spill trays under mercury containers, spill containment features, and regular inspections. With regard to facility construction, best management practices for soil erosion and sediment control and spill prevention and waste management practices would be employed to minimize suspended sediment, the transport of other deleterious materials, and potential water quality impacts. Further, a

Commentor No. 41 (cont'd): Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico

- DOE should make cited reference documents immediately available on the Internet.

Thank you for Analyzing Climate Change Effects

Describe The DOE Approval Process

- After the final EIS, what is the process for DOE to approve any site for mercury storage?

These comments and questions respectfully submitted,

Jay Coghlan
 Scott Kovac
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 www.nukewatch.org

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National Pollutant Discharge Elimination System General Permit Notice of Intent would be filed to address stormwater discharges associated with construction activity, and a stormwater pollution prevention plan would be developed and implemented for the construction activity. Chapter 3, Section 3.8.3.2, describes regional and local groundwater conditions, including the occurrence of the High Plains Aquifer and the Dockum Aquifer relative to WCS. Specifically, current information indicates that the dry line marking the southernmost extent of the saturated sediments comprising the High Plains Aquifer is located just to the north and east of the WCS landfills (i.e., with generally saturated conditions comprising the northeastern quadrant of WCS). Unsaturated conditions exist across the southern and western portions of WCS.

The proposed action's potential impacts on socioeconomic conditions were analyzed in a manner commensurate with their importance and the expected level of impact on them—the sliding-scale assessment approach. This is consistent with DOE guidance, presented in *Interim Guidance*, in which DOE expands on Council on Environmental Quality instructions for preparing EISs (40 CFR 1502.2) by stating that impacts should be discussed in proportion to their significance and specifically recommending the use of the sliding scale for impact identification and quantification. This means that impacts are only quantified to the extent practicable and/or where they are meaningful. This approach is discussed in Appendix B, Section B.1, and the methodology for analyzing socioeconomic conditions is presented in Section B.10.

As presented in Chapter 4, Section 4.9.11, the proposed action would create approximately 18 temporary construction jobs and 5 to 8 full-time jobs to support facility operations. This would increase employment in the two-county region of influence by about 0.2 percent. The projected increase in workforce is not expected to generate substantial indirect employment over existing conditions; therefore, there would be negligible change in other socioeconomic conditions, including housing and regional demographics. When complete, the proposed mercury storage facility would increase the developed area of the WCS property by about 1 percent, as noted in Section 4.9.1. The increase in traffic volume associated with the small increase in the WCS workforce to support mercury storage facility operations would increase average annual daily traffic by less than 0.5 percent during the first 2 years of facility operations.

Commentor No. 41 (cont'd): Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico

The purpose of this *Mercury Storage EIS* is to evaluate the environmental impact of the No Action Alternative and reasonable alternatives for constructing or modifying and operating DOE mercury storage facility(ies), as discussed in Chapter 1, Section 1.3. A summary comparison of socioeconomic impacts of the alternatives is discussed in Chapter 2, Section 2.7.1.11. Socioeconomic impacts are projected to be negligible under all alternatives. Chapter 4, Section 4.2.11, discusses the projected socioeconomic impacts under the No Action Alternative.

41-10

Chapter 4, Table 4-71, lists the facilities that were considered for their potential to contribute to cumulative impacts, including the National Enrichment Facility near WCS. Furthermore, possible accidents at the National Enrichment Facility have been analyzed in the *Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico* (NRC 2005). That EIS considered two basic types of accidents: those leading to radiological exposures and those leading to exposures to hydrogen fluoride following accidental releases of uranium hexafluoride. While such accidents could conceivably affect workers at WCS, they would not cause releases of mercury from the mercury storage building. Also, as summarized in Section 4.11.1, impacts on occupational and public health and safety from constructing and operating a mercury storage facility were projected to be negligible; therefore, these resource areas were not considered further in the context of cumulative impacts with respect to other nearby facilities.

41-11

Chapter 5, Section 5.2.4, subsection "Owner/Operator of Hazardous Waste Treatment, Storage, and Disposal Facilities Interim Status Regulations" discusses operation of a long-term mercury storage facility(ies) under interim status until issuance of a final RCRA permit. Section 5(d)(1) of the Mercury Export Ban Act of 2008 (P.L. 110-414) states:

A designated facility in existence on or before January 1, 2013, is authorized to operate under interim status pursuant to section 3005(e) of the Solid Waste Disposal Act until a final decision on a permit application is made pursuant to section 3005(c) of the Solid Waste Disposal Act. Not later than January 1, 2015, the Administrator of the Environmental Protection Agency (or an authorized State) shall issue a final decision on the permit application.

41-12

Reference documents cited in this *Mercury Storage EIS* are available for review in designated reading rooms listed in the *Federal Register* Notice of Availability for this document. The full EIS and other related documents are also available for review at the reading rooms, as well as at www.mercurystorageeis.com.

Comment side of this page intentionally left blank.

Commentor No. 41 (cont'd): Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico

- 41-13** DOE acknowledges the commentor's statement supporting the discussion on climate change effects that can be found in Chapter 4, Section 4.11.4.2.
- 41-14** DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

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**Commentor No. 42: Mark N. Templeton, Director
State of Missouri, Department of Natural Resources**



DEPARTMENT OF NATURAL RESOURCES

Jeremiah W. (Jay) Nixon, Governor • Mark N. Templeton, Director

www.dnr.mo.gov

MAR 25 2010

Mr. David Levenstein
EIS Document Manager
P.O. Box 2612
Germantown, MD 20874

RE: State of Missouri Comments on the Department of Energy Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (EIS)

Dear Mr. Levenstein:

The Missouri Department of Natural Resources (Department) has reviewed the U.S. Department of Energy's (DOE) Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement. The Department repeats our strong recommendation that the DOE not select the Kansas City Plant as the location for elemental mercury storage based on this review, our August 21, 2009, review of the DOE Notice of Intent To Prepare an Environmental Impact Statement for the Long-Term Stewardship and Storage of Elemental Mercury, as well as feedback received at the public scoping meeting on July 23, 2009.

The Draft EIS concludes that an unspecified portion of the Main Manufacturing Building at the Kansas City Plant (KCP) is suitable to locate the mercury storage facility. The Department does not agree with this conclusion and believes this site is an unsuitable location based on environmental, human health and socioeconomic impacts that include:

- The close proximity of an onsite daycare facility,
- The close proximity of residential housing and commercial businesses,
- The potential for flooding at the site, and
- The impact of the storage facility on the disposition and reuse of the current plant.

Despite the fact that the KCP location has not been definitively chosen as the preferred site, the Department believes that it is important that it be removed from consideration.

In addition to the concerns noted above, we feel that transporting hazardous waste through residential areas and over the nearby highway interchanges of Interstates 435, 470, and Highways 50 and 71 (the triangle), may present a potential danger to the public that can and should be avoided.



Recycle Paper

42-1

DOE acknowledges the Missouri Department of Natural Resources' opposition to the long-term management and storage of elemental mercury at KCP and its desire to remove it from the list of sites under consideration. However, as described in Chapter 1, Section 1.5.1, KCP was identified as a potential site for the storage of elemental mercury based on a number of objective criteria used to identify the range of reasonable alternatives, as required under NEPA. The site was one of several evaluated following responses to the publication of a Request for Expressions of Interest in the *Federal Register*, as well as in *Federal Business Opportunities*, and an internal memorandum requesting that DOE site offices determine if they have a facility(ies) that could be used for mercury storage.

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

42-2

DOE acknowledges the commentor's concerns regarding KCP due to environmental impacts, proximity to sensitive populations and the general public, flooding, and future site reuse considerations. As described in the appropriate sections of Chapter 4 and summarized in Chapter 2, Section 2.7, construction and operation of a mercury storage facility(ies) are expected to have negligible to minor environmental, socioeconomic, and cultural resources impacts. Chapter 4, Section 4.7.3.1, specifically describes the potential impacts on surface water from siting a mercury storage facility at KCP, including flood protection considerations. As described in the human health risks sections in Chapter 4 and Appendix D, human health risk would be negligible to low.

42-3

DOE acknowledges the commentor's observations regarding the presence of minority and low-income populations in the vicinity of KCP; Chapter 4, Section 4.7.12, of this *Mercury Storage EIS* presents the analysis of potential environmental justice impacts at KCP, including the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations within the region of influence at KCP in the event of a transportation accident. As discussed in Section 4.7.9.3, transportation accidents have been predicted to pose a negligible-to-low human health risk.

42-1

42-2

42-1
cont'd

42-3

**Commentor No. 42 (cont'd): Mark N. Templeton, Director
State of Missouri, Department of Natural Resources**

Mr. David Levenstein
Page Two

The Department appreciates the opportunity to provide comments as this issue is being considered, and we wish to remain engaged as the process proceeds. If you have any questions regarding the statements above, please contact Aaron Schmidt of my staff at (573) 751-0763. Direct written correspondence to his attention at the Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102. Thank you.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES



Mark N. Templeton
Director

MNT:bdd

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Commentor No. 43: Terry Burns

43-1 DOE acknowledges the commentor's support for the Mercury Export Ban Act of 2008 (P.L. 110-414) and the desire to eliminate mercury from our economy and environment. This *Mercury Storage EIS* has been prepared in response to Section 5 of the Act, which directs DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States.

43-2 DOE acknowledges the commentor's statement that elemental mercury should be stored where it is generated. The Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored at or near the source of generation. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

As discussed in Chapter 2, Section 2.2, the proposed storage facility would be an aboveground structure and would incorporate numerous safety features, including monitoring, to protect personnel and the environment.

As stated in Chapter 1, Section 1.3.1, currently there is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Evaluation of potential treatment and disposal methods is beyond the scope of this *Mercury Storage EIS*.

43-3 It is true that WCS would require the third-highest number of miles of truck travel. Although the transportation miles are the third highest, the risk assessment in this *Mercury Storage EIS* shows that no traffic fatalities are expected, and the risk to the public from a serious transportation accident would be negligible to low. As described in Chapter 4, Section 4.9.4.2, transportation emissions would minimally add to global and U.S. annual emissions of carbon dioxide. Section 4.11.4.2 further discusses impacts on global climate change.

43-4 DOE acknowledges the commentor's concerns regarding earthquakes in the vicinity of WCS and the risk to stored elemental mercury. Chapter 2, Table 2-4, shows that WCS has one of the lower measures of seismic risk among the seven candidate locations. In addition to evaluating the historical seismicity of each site, the analysis included using the latest probabilistic earthquake ground motion

Mr. David Levenstein, EIS Document Manager
 U.S. Department of Energy
 Draft Mercury Storage EIS Comments
 P.O. Box 2612,
 Germantown, Maryland 20874.

29 March 2010

Dear Mr. Levenstein:

I have reviewed the 798 page EIS.

I express some of my many concerns about the proposed Preferred Alternative of WCS.

I support PL110-414, and hope safe methods can be found to eliminate mercury from our economy, and mercury contamination from our bodies and our environment. We are already exposed to far too much mercury in the air we breath and fish we eat, mainly from excessive pollution released from coal and cement plants.

I support the principles of minimizing movements of hazardous materials such as mercury around the country, and support the use of multiple storage sites for this and other safety reasons. I support the use of above ground, continuously monitored storage rather than outdated leaky burial methods. I encourage continued research to find better ways to inactivate mercury and render it safer to handle, store and potentially dispose of.

I understand, after careful review, that none of the proposed sites is ideal. I also understand the attraction of WCS because: "The area around this location has a very low population density". Unlike other sites, people there are very unquestioning.

I question:

- 1) This site is far from any of the current locations of mercury, requiring 1.8 million miles of truck travel, exceeded only by Hawthorne and Hanford. Only Hanford exceeds WCS (and Hawthorne's) estimated 395,000 miles of rail transport. The accident estimates for this transportation, by rail or truck, are therefore among the highest. Likewise the carbon impact of this shipping on global warming.
- 2) "Within a radius of 100 kilometers (62 miles) of WCS, a total of 9 earthquakes (larger than magnitude 2.5) have been recorded since 1973." "The largest... had a magnitude of 5 and occurred in 1992." So we could expect another ten or dozen such events in the 40 years of planned operation. The stacks of mercury containers need to be able to withstand such movement. I don't see where this is addressed. The claim is 0.12 g acceleration, but the possibility of falling containers is not mentioned.

Commentor No. 43 (cont'd): Terry Burns

<p>3) The EIS states the following with regard to water: Water (liters per year) 24,721,000 current usage, 49,740,311 capacity. "The primary source of potable water for WCS is via pipeline from Eunice, New Mexico... WCS uses water from its central well for fire water and dust suppression. Production from the central well is at a rate of 95-114 liters (25-30 gallons) or 50-60 million liters (13-16 million gallons) per year. I do not see any analysis of what this continued and expanding draw on ground water will do to the area over time. In particular, I see no study of how the future of Eunice community and potable well water supplies will be affected by this development.</p>	<p>43-5</p>	<p>data from the U.S. Geological Survey to specifically compare the candidate sites. Appendix B, Table B-4, presents a general comparison of the earthquake measures used in this <i>Mercury Storage EIS</i>.</p>
<p>4) I find the discussion of groundwater at the site very interesting. There are clearly described areas of high water content close to the surface. I believe these are in strong contradiction to the WCS position that the 80 foot deep LLRW trenches are at no risk of water infiltration. I strongly urge a new, thorough and independent study of groundwater characteristics in the WCS site prior to its further consideration for mercury.</p>	<p>43-6</p>	<p>Chapter 3, Section 3.8.2.3, describes geologic hazards in the WCS region, including historical seismicity (i.e., frequency and location of earthquakes). As noted by the commentor, the 1992 "Rattlesnake Canyon earthquake" produced Modified Mercalli Intensity V shaking at its epicenter location. As shown in Appendix B, Table B-4, such an earthquake is considered light in terms of shaking effects. Chapter 4, Section 4.9.9.2, specifically assesses the effects earthquakes could have on a mercury storage facility at WCS and concludes that the risk is minimal. This conclusion is based on the predicted peak ground acceleration of 0.12 g (force of acceleration relative to that of Earth's gravity) at the site from an earthquake with an annual probability of occurrence of 1 in 2,500. The cited acceleration of 0.12 g is an empirically calculated value based on U.S. Geological Survey data and methodology applicable to the entire United States, as described in Section B.3.2 of this EIS. Ground motion in this range could cause slight damage to ordinary structures, but is not expected to affect modern structures that have been designed and constructed to withstand the assessed hazard.</p>
<p>5) "Severe weather events in the area include flash floods; high winds; dust storms; tornadoes; hail... During a 42-year period of record, Andrews County reported 21 tornadoes." The EIS describes a "Fully enclosed weather-protected building", which, unlike several other sites, would have to be constructed at WCS, at considerable expense. There is no indication that the metal building pictured in the EIS would withstand a tornado. How likely is it that the people of Eunice would be pelted with flying mercury canisters in the event of a tornado? How likely is it these would leak?</p>	<p>43-7</p>	<p>Nevertheless, the facility accidents analysis specifically evaluated earthquake-induced spills of flasks or 1-metric-ton (1.1-ton) containers, as shown in Chapter 4, Table 4-3, for all candidate sites and described in Section 4.9.9.2 specifically for WCS. Appendix D, Section D.2.5.2, describes the methodology used for evaluating earthquake-induced spills and conservatively assumed beyond-design-basis earthquake conditions. Section D.2.2 describes the conditions under which the mercury containers would be stored. The pallets of 3-liter (34.6-kilogram [76-pound]) flasks would stand in a metal spill tray capable of holding the contents of 10 percent of the flasks in the pallet. They could then be placed onto seismically rated storage racks and stacked either two or three high. The 1-metric-ton (1.1-ton) containers would be stored on spill trays on the floor of the facility. In addition, the design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as referenced in Section 4.9.3.1. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1, of this EIS.</p>
<p>6) 4.9.5.3 Threatened and Endangered Species states: "No threatened or endangered species are known or are expected to exist within the area of the proposed mercury storage facilities at WCS. Thus, no impacts on threatened or endangered species are expected". However, 3.8.5.4 states "Nine federally and/or state-listed threatened, endangered, and candidate species have been identified as occurring or possibly occurring on WCS." I do not find any explanation for this discrepancy. Clearly, no actions should take place at WCS that will further threaten these species.</p>	<p>43-8</p>	<p>earthquake conditions. Section D.2.2 describes the conditions under which the mercury containers would be stored. The pallets of 3-liter (34.6-kilogram [76-pound]) flasks would stand in a metal spill tray capable of holding the contents of 10 percent of the flasks in the pallet. They could then be placed onto seismically rated storage racks and stacked either two or three high. The 1-metric-ton (1.1-ton) containers would be stored on spill trays on the floor of the facility. In addition, the design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as referenced in Section 4.9.3.1. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1, of this EIS.</p>
<p>7) I do not see any cost analysis in the site evaluations. Where is the cost benefit study to help understand what will be spent to do this mercury project? DOE considered the possibility of using a "hybrid" or multiple-site strategy composed of candidate sites being evaluated in this Mercury Storage EIS. DOE eliminated such a strategy from further evaluation because the duplicative resources that would be required would not be cost-effective." I can find no cost analysis anywhere in the study that would support this conclusion. It seems to me entirely possible that such a study would show that multiple smaller sites, using and improving on existing infrastructure, and not requiring cross country shipping, could be less expensive not more. Furthermore, producers are supposed to pay fees to cover costs. And yet, cost is presented as the major reason for not considering the No Action multiple-site strategy.</p>	<p>43-9</p>	<p>earthquake conditions. Section D.2.2 describes the conditions under which the mercury containers would be stored. The pallets of 3-liter (34.6-kilogram [76-pound]) flasks would stand in a metal spill tray capable of holding the contents of 10 percent of the flasks in the pallet. They could then be placed onto seismically rated storage racks and stacked either two or three high. The 1-metric-ton (1.1-ton) containers would be stored on spill trays on the floor of the facility. In addition, the design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as referenced in Section 4.9.3.1. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1, of this EIS.</p>

Commentor No. 43 (cont'd): Terry Burns

- 8) The other statement about this strategy is that evaluation of potential impacts "would be highly speculative". I conclude that no scientific effort was made to assess current mercury sites, and what could be done, at what cost, to render these sites safe for a 40 year storage period. The failure to consider the environmental impacts of this strategy is a serious oversight in the EIS.
- 9) Most seriously, the "Cumulative Impacts" provides no study of the risks of storing not only mercury at WCS, but storing it in close proximity to toxic radioactive waste, and other commercial hazardous waste, including Hudson River PCBs. The Lenexa, Kansas site was eliminated for this very consideration: "Due to concerns about permitting and operating an underground facility for long-term storage of mercury and concerns about mercury storage being incompatible with storage of other materials, DOE has eliminated this option." Surely, the possibility of incompatibility of mercury storage with these other hazardous materials should at least be considered and studied.
- 10) 4.10 describes closure. This entire project is planned to last only a few (4) decades. Then the problem will remain, unless new technology to safely inactivate elemental mercury arises. All the millions of miles of transport, the hundreds of millions of dollars, the construction, etc. may well be duplicated again in sending the stuff off to yet another storage site(s).

I oppose the WCS site for the reasons mentioned, among others. It is illogical, I think, to spend so much money, to construct a facility, so far from all the mercury, to ship so much highly toxic material so far, to store it there for 40 years, to then shut it down. The safety questions of the site have not been answered adequately. The water usage has not been adequately addressed. The 'potential witches' brew of elemental mercury, LLRW and commercial hazardous wastes such as PCBs has not even been mentioned.

I strongly urge you to adopt the "No Action Alternative". You give minimal consideration to this. It merits your serious attention. You do not seriously evaluate the environmental risks and costs and benefits of widely dispersed storage. Smaller sites would have smaller amounts to spill. Transportation costs and risks would be largely eliminated. The users of mercury would bear the cost and responsibility of its proper handling and storage. Federal inspections could be as successful here as elsewhere. New construction would not be needed. No new environmental degradations would be required. No new populations would be threatened. That is the best kind of environmental justice.

I appreciate the opportunity to provide input.

Terry Burns, M.D.
4009 Fox Hollow CT
Midland, TX 79707

43-5	The values cited by the commentor reflect the existing usage and site water supply capacity for WCS, as described in Chapter 3, Section 3.8.7. Chapter 4, Section 4.9.7.2, addresses the impacts of water demands for construction and operation of a mercury storage facility at WCS. Construction activities would increase site water use by about 5 percent for 6 months, and operations would increase water use by about 0.4 percent annually. As discussed in Section 4.11.1, water usage for a mercury storage facility is projected to have a negligible contribution to cumulative impacts on water resources, and thus, would have a negligible impact on the future supply of potable water in Eunice, New Mexico.
43-6	DOE acknowledges the commentor's concerns regarding the depth to groundwater at WCS. Chapter 3, Section 3.8.3.2, summarizes existing groundwater conditions at WCS, based on relevant information obtained and reviewed by DOE. Chapter 4, Section 4.4.3, addresses the impacts of facility construction and routine operations on surface-water and groundwater hydrology and existing contaminant plumes. As described in Section 4.9.3.2, construction of a mercury storage facility at WCS is not expected to affect groundwater due to the depth to groundwater and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). No mercury would be stored below ground level. Also, as summarized in Section 4.11.1, impacts on water resources and waste management from constructing and operating a mercury storage facility were projected to be negligible; therefore, these resource areas were not considered further in the context of cumulative impacts at WCS. A geotechnical study would be conducted to confirm site geologic and hydrogeologic characteristics for facility siting and engineering purposes, as noted in Section 4.9.2.1. This would include determination of the depth to groundwater beneath the mercury storage facility.
43-7	A long-term mercury storage facility(ies) would be built in accordance with local building codes, and design factors to mitigate potential impacts from wind loads would be considered. Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site. Tornadoes of severity F1 and F0 (using the Fujita or "F" scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D-6, the predicted annual strike rate for an F2 or more-severe tornado at WCS is less than 1 in a million.
43-8	Chapter 3, Section 3.8.5.4, indicates that a total of nine special status species could occur on site at WCS as a whole; however, only two of these are federally endangered. Chapter 4, Section 4.9.5.3, notes that no threatened or endangered species are known to occur within the two areas considered for construction of the

Commentor No. 43 (cont'd): Terry Burns

mercury storage facility at WCS. Therefore, there would be no impact on this group of species as a result of constructing and operating the proposed facility; thus, there is no discrepancy. Section 3.8.5.4 has been revised for clarity and consistency with Section 4.9.5.3. Further, as reflected in revised Section 4.9.5.3, a site biological survey would be conducted to ensure that threatened and endangered species would not be impacted.

43-9

Costs are not presented in this *Mercury Storage EIS*. As described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury. In addition, the generators of the mercury will be responsible for the costs of shipping mercury to the DOE storage facility(ies).

As described in Chapter 2, Section 2.6.1, DOE considered the possibility of using a “hybrid” or multiple-site strategy composed of candidate sites being evaluated in this *Mercury Storage EIS*. However, DOE eliminated such a strategy from further evaluation because the duplicative resources that would be required would not be cost-effective. Although a specific cost study has not been prepared for the mercury storage alternatives, the factors that make up the total costs are reviewed here. As stated in Section 5 of the Act, land acquisition and permitting cost cannot be recovered in the fees collected from the generators of the mercury. Land acquisition costs would be variable, ranging from no new costs at current DOE facilities to potentially substantial new costs at commercial facilities. Permitting and regulatory oversight costs would be substantially higher for a multiple-site strategy because these activities would need to be performed for each storage location. Equipment costs would also be substantially higher for the multiple-site strategy because each facility would require their own mercury monitoring systems, security systems, forklifts, and pollution control systems. Operations staffing would also be substantially higher since most of the staff would need to be duplicated at each storage location. Although not substantially higher, even utility and materials costs for operations would be higher in total for multiple-site storage alternatives because of the inefficiencies in supplying these resources to multiple facilities.

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Commentor No. 43 (cont'd): Terry Burns

Therefore, although a cost study has not been performed, it is clear that multiple-site alternatives would be more costly.

43-10

DOE acknowledges the commentor's statement regarding DOE's analysis of the No Action Alternative. Chapter 4, Section 4.2, presents a qualitative analysis of the range of potential environmental and human health impacts of activities at existing mercury storage and mercury-generating facilities under the No Action Alternative. While DOE has given consideration to the No Action Alternative, as required by Council on Environmental Quality and DOE regulations for implementing NEPA, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414), "Long-Term Storage," requires DOE to designate a facility (or facilities) for the long-term management and storage of elemental mercury generated within the United States. However, the Act does not require generators to store their elemental mercury at the DOE storage site. Thus, some or all such mercury could be stored within or near the generating sites, which would be similar to the No Action Alternative or status quo.

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The exception to this status quo is that the ban on the export of elemental mercury would take effect January 1, 2013; this is expected to result in surplus inventories of mercury. The No Action Alternative also considered DOE mercury in storage at Y-12 in Oak Ridge, Tennessee. DOE believes it is speculative to surmise what existing private facilities and generators would do with their mercury once the mercury export ban goes into effect, assuming, for the purposes of analysis, that no DOE facility(ies) exists to accept the growing inventory of elemental mercury that could no longer be sold and exported. Further analysis of the various parameters and options under which mercury could be stored, consolidated, transferred, or shipped in the absence of a DOE facility(ies) under the No Action Alternative is not possible.

43-11

DOE acknowledges the commentor's concerns about the cumulative impacts analysis and the compatibility of elemental mercury with other materials stored at WCS.

DOE is cognizant of compatibility issues with mercury storage. So as to mitigate any compatibility concerns, the proposed mercury storage facility(ies) would only store elemental (metallic) mercury that is at least 99.5 percent pure. As discussed in Chapter 2, Section 2.2, of this EIS, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The *Interim Guidance* discusses DOE's anticipated waste acceptance criteria for

Commentor No. 43 (cont'd): Terry Burns

discarded mercury to be stored at the facility(ies). All mercury to be stored at the facility(ies) must meet these requirements. Further, as an engineered, aboveground facility designed and constructed for the exclusive use of storing elemental mercury, a DOE mercury storage facility(ies) differs from the underground limestone mine operated by Meritex Enterprises in Lenexa, Kansas, as discussed in Section 2.6.1. Section 2.2.1 describes the construction of a new mercury storage facility. It would be located in an area under the control and authority of DOE that would include appropriate fencing and security. The building construction would be primarily of noncombustible materials and would include a fire suppression system (e.g., sprinkler). The new facility would have a reinforced-concrete floor, strong enough to withstand the heavy loads from mercury storage. The floors would also be treated with an epoxy sealant to add strength and make them impervious to mercury leaks and spills and water from fire suppression systems. The exterior of the storage facility would likely be sheet metal panels fastened to structural steel supports and connected together to form a weather-protected structure. Lighting, ventilation, fire suppression, and security monitoring systems would be incorporated into the facility design.

43-12

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS. As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for such elemental mercury wastes. As described in Section 2.1, the Mercury Export Ban Act of 2008 (P.L. 110-414) does not specify how long the DOE mercury storage facility(ies) would need to be operated. For purposes of analysis, DOE assumes the operation of a mercury storage facility(ies) with a capacity of 10,000 metric tons (11,000 tons) over a 40-year period of analysis. These are estimates with a degree of uncertainty; therefore, it is possible that more or less than 10,000 metric tons (11,000 tons) of mercury could eventually require storage for a period longer or shorter than 40 years. Additional NEPA documentation would be required to evaluate expanding the facility(ies) to accept more than 10,000 metric tons (11,000 tons) of mercury or extending its operations beyond the 40-year period of analysis. Details on closure of the mercury storage facility are addressed in Chapter 4, Section 4.10.

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Commentor No. 43 (cont'd): Terry Burns

- 43-13** DOE believes that the commentor's concerns regarding site safety, water use, and compatibility with other waste management activities at WCS have been adequately addressed. Please see the responses to Comment Nos. 43-3, 43-4, 43-5, 43-6, 43-7, and 43-11.
- 43-14** DOE acknowledges the commentor's preference for the No Action Alternative. While DOE has given consideration to this alternative (see Chapter 4, Section 4.2), Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) requires DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States. However, the Act does not require generators to store their elemental mercury at the DOE storage site. Thus, some or all such mercury could be stored within or near the generating sites, which would be similar to the No Action Alternative.

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**Commentor No. 44: Ron Velarde, NW Regional Manager
State of Colorado, Department of Natural Resources, Division of Wildlife**

STATE OF COLORADO
Bill Ritter, Jr., Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
AN EQUAL OPPORTUNITY EMPLOYER
Thomas E. Remington, Director
6580 Broadway • 80216
Telephone: (303) 297-1182
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March 31, 2010

David Levenstein
EIS Document Manager
U.S. Department of Energy
P.O. Box 2612
Germantown, Maryland 20874

RE: Threatened and Endangered Species Consultation for the Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (Mercury Storage EIS) (DOE/EIS-0423D)

Dear Mr. Levenstein:

Thank you for the opportunity to provide comments on the *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (Mercury Storage EIS)*. The Colorado Division of Wildlife (CDOW) appreciates the DOE's interest in wildlife and their request for "information on state-listed or sensitive species that may be affected by the proposed project." CDOW has a statutory responsibility to manage all wildlife species in Colorado, as such we encourage the Department of Energy to include our comments and suggestions in the final EIS recommendations to provide the highest possible wildlife and habitat protection to all of Colorado's wildlife species and habitats.

The CDOW has reviewed the Mercury Storage EIS and agrees with DOE's preliminary finding that the Grand Junction Disposal Site (GJDS) is not the preferred alternative for this project. CDOW offers the following comments should the GJDS move forward: they are organized into two sections: 1) construction, operations, and maintenance impacts, and; 2) potential long-term mercury impacts.

1) Construction, Operations, and Maintenance Impacts

The Mercury Storage EIS states that the project will occupy the entire 7.7 acres and require new surface disturbance of up to 3 acres to develop the facility structure as proposed (EIS page 2-10, § 2.4.2, page 4-3, § 4.3.1 et seq.).

The proposed site and adjacent area that will be disturbed provides habitat for numerous sensitive desert dwelling species; the site lies on the east-central edge of the Colorado Plateau in the upper sonoran life zone – a hot dry climate with uniquely adapted vegetation and allied wildlife. The species that CDOW identify in this correspondence are not common, and occur within specific micro-habitats that are relatively limited.

DEPARTMENT OF NATURAL RESOURCES, James B. Martin, Executive Director
WILDLIFE COMMISSION, Tim Glenn, Chair • Robert Streeter, Vice Chair • Mark Smith, Secretary
Members, David R. Brougham • Dennis Buechler • Dorothea Farris • Allen Jones • John Singletary • Dean Wingfield
Ex. Officio Members, James B. Martin and John Stulp

44-1

DOE acknowledges the Colorado Division of Wildlife's statement that GJDS should not be selected for the long-term management and storage of elemental mercury. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

44-2

DOE acknowledges the commentor's concerns regarding potential impacts on sensitive desert-dwelling species in the vicinity of GJDS and appreciates the information provided. Ecological resources of GJDS are addressed in Chapter 3, Section 3.2.5. Threatened and endangered and other special status species (including Federal candidates and state-listed species) and critical habitat identified by DOE as potentially present in the vicinity of the site are discussed in Section 3.2.5.4. However, no such species have been observed on GJDS. Chapter 4, Section 4.3.5.1, has been revised to clarify that approximately 60 percent (1.8 hectares [4.5 acres]) of the proposed construction area at GJDS is disturbed land and 40 percent (1.2 hectares [3 acres]) contains native vegetation. This is consistent with Chapter 3, Section 3.2.5.1. As cited in Section 4.3.5.3, no threatened or endangered species are known or have been observed on the site and, thus, no impacts on threatened or endangered species are expected. However, native flora and fauna occurring within 40 percent of the construction site would be impacted. Chapter 3, Section 3.2.5.1, has been revised to incorporate the relevant species information provided by the commentor. As reflected in revised Section 4.3.5.3, a preconstruction biological survey would be performed if GJDS is selected as the location of a new mercury storage facility.

44-1

44-2

**Commentor No. 44 (cont'd): Ron Velarde, NW Regional Manager
State of Colorado, Department of Natural Resources, Division of Wildlife**

The development, long-term monitoring, and maintenance of this facility may cause impacts at the individual, population, or community level. Many of the species identified at the proposed site are closely linked ecologically, for example white-tailed prairie dogs are a keystone species and are vital to kit fox which are a state endangered species. Similarly, white-tailed prairie dog burrows, (abandoned or not in active use) provide breeding habitat for burrowing owls – a state threatened species. Golden eagles, red-tailed hawks, great horned owls (mapped, nesting species using this area) all rely on prairie dogs as a prey base. Negative impacts and changes to a keystone species or their habitat have a far-ranging influence resulting in impacts to all of the allied species.

The following is the list of wildlife species and potential impacts per your request for “information on state-listed or sensitive species that may be affected by the proposed project.”

Species of Special Concern (SC):

White-tailed prairie dog *Cynomys leucurus* S4, S4 *

CDOW has mapped an extensive number of prairie dog colonies within close proximity to the proposed site and construction area. There are 5 colonies within a half mile of the site; more than 12 within one mile; and many more within the region of influence. The proposed site, the immediate area, and the extended area surrounding the proposed project make-up landscape scale habitat that is part of and supports a relatively intact prairie dog town and individual population area (prairie dog ecosystem) as identified in the CDOW *Grand Valley and Uncompahgre Valley Population Area Action Plan*, November 2009.

Potential Impacts

Impacts may result during the construction and maintenance phase of the project. Impacts may include habitat destruction from perimeter security and maintenance roads, vehicle collisions with wildlife, noxious weeds, employee pets on site, and use of pesticides.

The CDOW recommends that the design and construction of the project protect the integrity (vegetation, soils, and burrow systems) of prairie dog colonies. DOE should establish and require no disturbance buffers of ½ mile from the perimeter fence during the construction period as well as for the life of the project-maintenance and monitoring. Construction disturbance should be limited during birthing (production) periods - between March 1 and June 15. Long term maintenance activities (ventilation, emergency testing, etc.; EIS page 4-38, §4.3.9.1) should be scheduled so that they do not occur between March 1 and June 15. Other recommendations include: promptly reclaim disturbed areas around the construction site with native grasses and forbs appropriate to the ecological site; aggressively control non-native and invasive weeds, particularly cheatgrass, in reclamation areas within prairie dog habitat; and prohibit the use of pesticides for rodent control.

According to the EIS, (table 2-6, page 2-44) electric consumption would be approximately 2.5 times current capacity and would require upgrades to electrical distribution system. Power poles are often used by raptors for hunting perches. The potential exists for increased predation to white-tailed prairie dogs; CDOW recommends the installation of raptor perch deterrents with upgrades to distribution system. Similarly, raptor perch deterrents should be placed on perimeter fencing (EIS page 4-30) of the disposal facility. See Other Important Species comment section for additional issues.

During the construction, stockpiling, and maintenance phase of the project, DOE should develop contractor guidelines to minimize wildlife mortality from vehicle collisions on roads. The DOE should also post a speed limit of 20 MPH on ingress/egress and any maintenance and or security roads.

44-3

DOE acknowledges the commentor's concerns regarding the white-tailed prairie dog and appreciates the information provided. Chapter 3, Section 3.2.5.1, has been revised to incorporate the relevant information provided on the species. Also, Chapter 4, Sections 4.3.5.1 and 4.3.5.3, have been revised, as appropriate, to reflect the commentor's suggested mitigation measures regarding the species and site disturbance. Please see the response to Comment No. 44-2.

44-2
cont'd

44-4

DOE acknowledges the commentor's observations regarding the need for upgrades to the GJDS electrical distribution system and concerns regarding increased predation of the white-tailed prairie dog. Chapter 4, Sections 4.3.5.1 and 4.3.5.3, have been revised, as appropriate, to reflect the commentor's suggested mitigation measures regarding the species. Please see the response to Comment No. 44-2.

44-5

DOE acknowledges the commentor's recommendations for minimizing vehicle impacts on wildlife during facility construction. The “Terrestrial Resources” sections of Chapter 4 have been revised to include a brief discussion of the recommendations to reduce wildlife mortality during facility construction and subsequent operations.

44-3

44-4

44-5

**Commentor No. 44 (cont'd): Ron Velarde, NW Regional Manager
State of Colorado, Department of Natural Resources, Division of Wildlife**

44-6

DOE acknowledges the commentor's concerns regarding potential impacts on surface drainage features and associated vegetation and wildlife from the proposed construction and operation of a mercury storage facility at GJDS. As described in Chapter 4, Section 4.3.3.1, construction and operation of a mercury storage facility are not expected to impact natural surface-water drainages on or in the vicinity of the site, as no such features exist within the construction footprint. Ground disturbance would be limited to the northwestern corner of GJDS, as noted in Section 4.3.1. During construction, appropriate soil erosion and sediment control measures, as described in Section 4.3.2.1, and spill prevention practices would be employed to minimize suspended sediment and deleterious material transport (such as from spills and leaks from construction equipment) and potential water quality impacts. A National Pollutant Discharge Elimination System General Permit Notice of Intent would be filed to address stormwater discharges associated with construction activity. Also, development and implementation of a stormwater pollution prevention plan would be required for the construction activity. Use of sedimentation ponds, as suggested by the commentor, as well as use of sediment fencing, staked hay bales, and similar measures, would be considered for use as part of the stormwater pollution prevention plan.

Although the conceptual design of the new mercury storage facility is not sufficient to evaluate the size or even need for a stormwater management pond, owing to site-specific hydrologic and permitting considerations, DOE will consider the commentor's recommendations. However, fencing of such ponds is standard practice in the construction industry for heavy-industrial facilities. Finally, DOE exercises sound waste minimization and pollution prevention practices at all of its facilities. Any need for pesticide use or chemical treatment during facility operations would be carefully considered and, if determined to be necessary, would be conducted only by licensed applicators.

44-6

Species of Special Concern (SC)
Northern leopard frog *Rana pipiens* G5, S3
Currently, the USFWS lists the species as under review - they are conducting a 90 day finding on a petition to list (<http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D03D>). The CDOW has identified and mapped two locations of the leopard frog in relatively close proximity to the proposed site; numerous other known, mapped locations are well within the region of influence.

Potential Impacts
Development of the facility and supporting activities should not lead to changes to the existing network of small creeks, ephemeral streams, and shallow arroyos. Site grading and paving will lead to an increase in surface water and storm water runoff that will impact water quality and quantity especially during storm events. The planning or use of pesticides for insect control may have impacts to northern leopard frogs adjacent to the site. The creation of new water bodies (evaporation ponds) will likely be an attraction to wildlife which could in turn lead to negative impacts to northern leopard frogs from increased predation or an increase in the numbers or species of predators.

The CDOW recommends that the design, construction, and maintenance of the project protect the functional and vegetative integrity of ephemeral streams, and shallow arroyos around the project site, and for the larger drainage basin, feeding into Indian Creek and Kannah Creek. Protection can be accomplished by avoiding construction activities, staging areas and the development of monitoring roads or road segment in the channel of an ephemeral stream or arroyo. Avoid maintenance road low water crossings of ephemeral streams or arroyos surrounding the area. All site runoff should be directed into lined sedimentation ponds and sedimentation ponds should not discharge directly into drainages. The storage facility's evaporation ponds and drainage ditches as described in the Draft EIS may provide an amphibian habitat. Pesticide, herbicide and fertilizer use should be restricted where such chemicals may inadvertently enter ephemeral streams or arroyos. If necessary, weed management should be done by mowing and should occur between November 1 and April 1. The evaporation ponds should be fenced to exclude cattle and large wildlife species. All surface disturbances should be revegetated promptly with locally adapted native species to the site.

State Threatened Species (ST):
River Otter *Lutra Canadensis*
CDOW has confirmed sightings and mapped locations of river otters within Kannah Creek. The known, mapped locations are well within the region of influence as described in the EIS.

Potential Impacts
Site runoff and water quality and storm water runoff of the larger drainage area may have an impact on species and their habitats. Changes in water quality may impact prey species including fish, crustaceans, frogs, salamanders, garter snakes, and aquatic macro invertebrates.

CDOW's recommendations are the same as for northern leopard frog; avoid changes to existing water quality and quantity, is crucially important to manage site runoff, prohibit or limit pesticide use, mow vegetation as weed control method, and fence evaporation ponds to exclude wildlife and livestock.

State Threatened Species (ST):
Western burrowing owl *Athene unicinctaria* G4, S4B
CDOW has located and mapped burrowing owls within close proximity to the proposed site. Several known, mapped locations are well within the region of influence.

44-6
cont'd

**Commentor No. 44 (cont'd): Ron Velarde, NW Regional Manager
State of Colorado, Department of Natural Resources, Division of Wildlife**

Potential Impacts

Impacts from facility development may result in changes in community/population dynamics of vegetation, prairie dog colonies, and the prairie dog town. Also, increased human activity at the site and immediately adjacent to it may result in indirect disturbance and change in use of habitat. The potential use of herbicide and pesticides would have impacts to insect and rodent populations and their dependent prey populations. Permitting employee pets on site can result in increased stress and may also result in direct mortality.

Prior to facility construction DOE should inventory prairie dog colonies per *CDOW Recommended Survey Protocol and Actions to Protect Burrowing Owls*. Efforts should include monitor nest location and use and provide the information to CDOW to evaluate long term population trends.

Planning, design, and construction of the storage facility should include actions to maintain the existing size and population of the prairie dog colonies within the entire facility property to maintain functionality of the prairie dog town and to ensure the highest potential for burrowing owl nest site selection and use. The integrity of prairie dog colonies and overall town may be protected by creating buffers of no disturbance within 1/2 mile of the perimeter fence. Limiting or prohibit surface disturbance within 300 feet of any active burrowing owl nest site between March 1 and August 15 will also provide protection.

State Endangered Species (SES):

Kit fox *Vulpes macrotis* G4, S1

The proposed project is located in known, mapped kit fox habitat; several documented sightings are in close proximity to the proposed facility.

Potential Impacts

Increased human disturbance resulting in indirect impacts. Potential use of pesticides for rodent control, resulting in the reduction of food sources for the fox and secondary toxicity. Potential to change (increase) competitive predators into kit fox habitat.

Several steps should be taken by DOE to avoid and minimize impacts to kit fox habitat. Prior to any facility development the DOE, in consultation with CDOW, should survey for kit fox den sites in appropriate habitats. Den locations should be monitored and information provided to CDOW for long term population monitoring or for analysis of future potential population augmentations.

Other activities should include restricting human activity and avoid surface disturbance within 0.25 mile of den sites while young are den dependent (Feb 1 to May 1); restricting the use of pesticides for rodent control across the entire facility area to prevent reduction of kit fox food supplies and secondary toxicity; and limit or restrict artificial water sources within the entire project area to prevent the spread of competitive predators into kit fox habitat. The DOE should plan on fencing the evaporation ponds to exclude all wildlife species. And finally, the DOE should post and enforce 20 MPH speed limits on all roads including service roads to minimize wildlife collisions and mortality and prohibit pets - dogs at the facility and on site.

Aquatic resources

The Gunnison River is home to the Colorado pikeminnow, *Ptychocheilus lucius* G1,S1; razorback sucker, *Xyrapetich texanusa* G1,S1; fannelmouth sucker, *Catostomus latipinnis* G3G4, S3 roundtail chub, *Gila robusta* G3,S2; and bonytail chub, *Gila elegans* G1, SE.

44-7

44-7

DOE acknowledges the commentor's concerns and information provided regarding the white-tailed prairie dog and use of burrows by the western burrowing owl. Chapter 3, Sections 3.2.5.1 and 3.2.5.4, have been revised to incorporate the relevant information provided on the species. Also, Chapter 4, Sections 4.3.5.1 and 4.3.5.3, have been revised, as appropriate, to reflect the commentor's suggested mitigation measures regarding the species and site disturbance.

44-8

DOE acknowledges the commentor's concerns and information provided regarding the potential presence of the kit fox in the vicinity of GJDS. Chapter 3, Section 3.2.5.4, has been revised to incorporate the relevant information provided on the species. Also, Chapter 4, Section 4.3.5.3, has been revised, as appropriate, to reflect the commentor's suggested mitigation measures regarding the species.

44-8

**Commentor No. 44 (cont'd): Ron Velarde, NW Regional Manager
State of Colorado, Department of Natural Resources, Division of Wildlife**

Potential Impacts

Site runoff and water quality and storm water runoff of the larger drainage area may have an impact on species and their habitats. Site and storm water runoff from the larger drainage area may influence water quality, negatively impacting aquatic species and their associated habitats.

The proposed GJDS may be underlain with Mancos Shale, which easily erodes. Soils derived from Mancos Shale have slow permeability rates, and thus, surface water runoff contributes to increased erosion and sedimentation. These soils also harbor high concentrations of selenium, a metalloid that is an essential trace nutrient for aquatic and terrestrial species. Bioaccumulation of selenium by waterfowl and aquatic life at low concentrations is highly toxic. The U.S. Fish and Wildlife Service (USFWS) has documented mortalities, reproductive failure, and deformities in fish and aquatic birds exposed to high concentrations of selenium throughout the United States.

Watershed protection for aquatic wildlife should include compliance with local, state, and federal laws, statutes, regulations, and standards designed to protect aquatic resources. The EIS on page 3-6 states that "limited data exist for Kannah Creek and the Gunnison River down gradient of the site; however, these data indicate that the quality of these bodies is influenced more by groundwater recharge than the flow that enters from the small creeks and ephemeral streams in the area of the GJDS." The CDOW agrees and recommends that all site runoff be directed into lined sedimentation ponds to eliminate percolation/leaching of wastewater into groundwater. The ponds and/or other containment areas should be managed with effective Best Management Practices (BMPs) that are regularly monitored and evaluated for effectiveness and efficiency; BMPs that are ineffective should be replaced with new ones that may be more appropriate. BMPs should be implemented to reduce selenium concentrations and selenium loading in waterways and containment areas. Netting should be placed over open, containment areas to preclude exposure of migratory birds to increased selenium concentrations, as well as any other hazardous materials. Sedimentation ponds should be fenced and not discharge directly into drainages.

Small creeks, ephemeral streams, and numerous shallow arroyos drain rainfall from the planning area to the larger drainages of Indian and Kannah Creeks and ultimately into the Gunnison River. The seasonal drainages also provide micro-invertebrate wildlife habitat in the desert environment. Maintaining the functionality and vegetation components of ephemeral streams and arroyos is essential to maintain beneficial food resources and acceptable water quality for aquatic wildlife. Avoiding changes to existing water quality and quantity is crucially important.

Other important species:

Golden eagle *Aquila chrysaetos*
The *Bald and Golden Eagle Protection Act* provides management guidelines and conservation strategies. <http://www.fws.gov/midwest/eagle/guidelines/dgepa.html>

Potential Impacts

Upgrades to the electrical distribution system may increase the risk of electrocution without mitigative measures. There is a potential for decreases in rodent population, including prairie dogs, which may interfere with normal breeding, feeding, or sheltering behavior; or nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

The following suggestions apply to Golden eagle, *Aquila chrysaetos* as well as Red-tailed hawk, *Buteo jamaicensis* and great horned owl, *Bubo virginianus* which have known, mapped nest locations in close proximity to the proposed facility.

44-9

44-9

DOE acknowledges the commentor's observations on the geology and soils of GJDS and the need for compliance with relevant laws and regulations to protect the watershed and wildlife. The geology and soils of the site are described in Chapter 3, Section 3.2.2. As described in Chapter 4, Section 4.3.2.1, facility construction and operation at GJDS would have negligible impacts on site geology and soils due to the relatively small area of disturbance (3.1 hectares [7.6 acres]) and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). No mercury would be stored below ground level. Required geologic resources would be procured from local and/or regional commercial vendors. Adherence to best management practices for soil erosion and sediment control would minimize soil erosion and loss, and no impacts are expected on areas outside the site footprint. A geotechnical study would also be conducted to confirm site geologic characteristics for facility siting and engineering purposes. Chapter 5 of this EIS identifies the laws, regulations, and other relevant requirements that would govern the construction and operation of a new mercury storage facility, including environmental permits and notifications. Please see the response to Comment No. 44-6.

44-10

DOE acknowledges the commentor's concerns regarding raptor species in the vicinity of GJDS and appreciates the information provided on locations and resources for mitigating potential impacts. Chapter 4, Section 4.3.5.1, has been revised to reflect the commentor's suggested mitigation measures for raptors. Please see the response to Comment No. 44-4.

44-10

**Commentor No. 44 (cont'd): Ron Velarde, NW Regional Manager
State of Colorado, Department of Natural Resources, Division of Wildlife**

The CDOW recommends implementing actions in: "Suggested Practices for Avian Protection on Power Lines, the State of the Art in 2006" and the "Avian Protection Plan (APP) Guidelines" (2005). Follow the document suggestions for proper design and retrofit considerations for power lines and poles to minimize raptor electrocution. These documents can be ordered at the Edison Electric Institute web site (www.eei.org) or can be downloaded at the Avian Power Line Interaction Committee web site (www.aplic.org).

Several species of economic importance (to CDOW) use the area and may be impacted by the proposed project. The species are: pronghorn antelope *Antilocapra americana*; elk *Cervus canadensis*; and mule deer *Odocoileus hemionus*. The storage site is adjacent to an antelope perennial water source; a winter concentration area for elk, and elevational/seasonal migration corridor for mule deer.

The best protection for all three of these species is for DOE to establish policies to protect wildlife (e.g., no poaching, no firearms, no dogs on location, no feeding of wildlife, etc.), minimize human outdoor activities during critical times between December 1 and April 15, and control weeds. The DOE should develop (in cooperation with CDOW and the Mesa County Pest & Weed Inspector) and implement a long-term, comprehensive weed management plan for the site.

2) Potential long-term mercury impacts

The CDOW does not have any issues with the environmental analysis and assignment of potential risk to ecological factors as indicated at various sections in the EIS. However, CDOW is concerned about the long term (greater than 40 years), potential for mercury accumulation that may result from the ventilation of the handling and storage rooms. CDOW requests that long-term soil monitoring sites, schedules, and protocol be established around the facility (outside of the security-perimeter fence) in prairie dog habitat and or colonies, to identify and track any residual mercury (regardless of the limited likelihood of occurrence and limited distance of transport EIS page 4-39 §4.3.9.2.2).

The CDOW believes long-term monitoring is important because prairie dogs are fossorial rodents that live all life stages in an above or below ground soil environment. Prairie dog's sole cover and production habitat is made up of underground burrows, as a result their exposure to inhaled, dermal absorption, or ingestion of elemental or methylmercury may be different than any other organism - in the long-term. Prairie dogs are the primary prey base for many allied species that occupy the area; nothing is mentioned in the EIS regarding long-term (greater than 40 years) bio accumulation or behavioral responses of predator species in the context of complex interrelationships. Potential exposure is unknown. Long-term soil monitoring should be combined with strategies and recommendations of the CDOW *Grand Valley and Uncompaggre Valley Population Area Action Plan*, November 2009 to monitor and protect the entire prairie dog ecosystem in which the site is located.

The EIS is explicit about the limited potential for translocation of elemental mercury, wet or dry, (EIS page 4-39 §4.3.9.2.2., et seq.); however, CDOW believes that unanticipated factors may occur regardless of the rigorosity of the risk modeling. Infrequent, but severe flash floods occur and the network of washes and arroyos carry large quantities of surface flow water, sediment, and detritus to the Gunnison and Colorado Rivers via Indian and Kannah Creek.

CDOW requests that soil monitoring sites, schedules, and protocol be established in the drainage network leading to and including Indian Creek and Kannah Creek to identify and track any residual mercury (regardless of the limited likelihood of occurrence and limited distance of transport). Additionally, CDOW requests that DOE develop a spill prevention control plan that includes the storage of emergency response equipment at strategic locations along waterways draining into perennial water courses, including Indian and Kannah Creek, and the Gunnison River. Designated spill stations higher

44-10
cont'd

44-11

44-12

44-12
cont'd

44-11 DOE acknowledges the commentor's concerns regarding potential impacts on species of economic importance in the vicinity of GJDS and appreciates the information provided on them. DOE also acknowledges the recommendations offered regarding species protection. DOE implements wildlife protection policies and procedures at all facilities and would consult with the Colorado Department of Wildlife and Mesa County. Chapter 3, Section 3.2.5.1, has been revised to incorporate the relevant information provided on the species. Further, Chapter 4, Section 4.3.5.1, has been revised to reflect the commentor's concerns about species of economic importance.

44-12 DOE acknowledges the commentor's concerns regarding the need for specified monitoring of potential mercury accumulation and transport in the environment and need for staging of emergency response equipment as part of a spill prevention plan. As described in Chapter 2, Section 2.3.2, and Chapter 4, Section 4.3.3.1, best management practices, including adherence to an integrated contingency plan and spill prevention, control, and countermeasures plan for mercury storage, would be employed to prevent spills and releases, including the use of spill trays under mercury containers, spill containment features, and regular inspections. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Also, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility. In accordance with Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414), DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). As described in Section 2.3.2, DOE anticipates that monitoring would be conducted during regular inspections of the mercury containers to ensure that no containers are corroding or leaking and testing the airspace of the mercury storage facility for elevated concentrations of mercury vapors. However, the mercury storage facility would be subject to any additional monitoring requirements imposed under a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment.

**Commentor No. 44 (cont'd): Ron Velarde, NW Regional Manager
State of Colorado, Department of Natural Resources, Division of Wildlife**

44-12
cont'd

up in the watershed will expedite effective response and minimize the possibility of contamination reaching fish-bearing waterways downstream.

The CDOW agrees with DOE's preliminary finding that the Grand Junction Disposal Site is not the preferred alternative for this project.

The CDOW appreciates the opportunity to comment on this project. The mission of the CDOW is to protect, preserve, enhance, and manage wildlife and their environment for the use, benefit and enjoyment of the people of Colorado and its visitors. One of the ways we achieve this mission is to comment on land use proposals such as the request we received from you.

Please do not hesitate to contact Dean Riggs, Assistant Regional Manager at 970-255-6173 if you have any questions or would like clarification on any of our concerns.

Ron Velarde
Ron Velarde, NW Regional Manager

- cc. Dean Riggs, NW Assistant Regional Manager
- Brad Petch, Senior Terrestrial Conservation Biologist
- Sherm Hebein, Senior Aquatic Biologist
- Dan Neubaum, Terrestrial Conservation Biologist
- Lori Martin, Area Aquatic Biologist
- Stephanie Duckett, Terrestrial Biologist
- J.T. Komatzke, Area Wildlife Manager
- Frank McGee, District Wildlife Manager
- Ryan Swygman, District Wildlife Manager

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* Ranking System Key per Colorado Natural Heritage Program 2010 <http://www.cnhp.colostate.edu/about/heritage.asp>
 Species and ecosystems are ranked on the Global (G), National (N), and Subnational/State/province (S) levels. The basic ranks used to classify species and ecosystems are:
 1 = Critically Imperiled (Example: G1 = Globally Ranked Critically Imperiled)
 2 = Imperiled (Example: N2 = Nationally Ranked Imperiled)
 3 = Vulnerable to Extirpation (Example: S3 = State Ranked Vulnerable to Ext.)
 4 = Apparently Secure
 5 = Demonstrably Widespread, Abundant, and Secure
 B = Breeding - Basic rank refers to the breeding population of the element in the nation or subnation (Example: S2B = Subnational Imperiled - Breeding Population).

Commentor No. 45: Phillip Barr

45-1

Consideration of site selection and decisionmaking by other entities and regulatory agencies regarding other facilities in the WCS region is beyond the scope of this *Mercury Storage EIS*. However, DOE did consider the cumulative impacts of constructing and operating the proposed mercury storage facility, as presented in Chapter 4, Section 4.11, of this EIS. This analysis identified both existing and planned projects within the area near WCS in light of the impacts projected to occur from the proposed mercury storage facility. The specific analysis for WCS, presented in Section 4.11.3.7, determined that the contribution to cumulative impacts from construction and operation of a mercury storage facility at WCS would range from none to negligible.

45-1

[Note to Reader: Mr. Phillip Barr submitted the comments shown below via website, e-mail, fax, and regular mail. Duplicate comments, extraneous attachments and/or submissions are not repeated in this Comment Response Document. A complete copy of the original submissions are included in the Administrative Record.]

From: pharb2@msn.com [mailto:pharb2@msn.com]
Sent: Tuesday, March 23, 2010 10:25 AM
To: ron.curry@state.nm.us; NMENV; michael.weber@nrc.gov; tej@nrc.gov; Levenstein, David; IGHOTLINE; hill.troy@epamail.epa.gov; Scott.Burnell@nrc.gov
Cc: janet.greenwald; nmlady2000; prvors02@suddenlink.net; James.Park@nrc.gov; Swickhow, Deborah; Woody, Carolyn (ENRD); nmqgovmat@state.nm.us
Subject: Nuclear industry/nuclear waste in Lea county New Mexico

Its my concern that placing anything nuclear over an aquifer and in a seismic hazard zone in Lea county New Mexico as determined by the USGS and (Mesa water company on aquifer) below is a form of :

Willful Negligence. Intentional performance of an unreasonable act in disregard of a known risk, making it highly probable that harm will be caused. Willful negligence usually involves a conscious indifference to the consequences.

phillip barr
 nm

From: pharb2@msn.com <pharb2@msn.com>
To: janet.greenwald <contactus@cardim.org>; Levenstein, David; glenbeck <glenbeck@foxnews.com>; Cyrus Reed <cyrus.reed@sterrachub.org>; oreilly <oreilly@foxnews.com>
Cc: michael.weber@nrc.gov <michael.weber@nrc.gov>; Matthew <Matthew.Bartlett@nrc.gov>; tej@nrc.gov <tej@nrc.gov>; nmlady2000 <nmlady2000@hotmail.com>; Laura <Laura.Quinn@nrc.gov>; CMRSVINICKI@nrc.gov <CMRSVINICKI@nrc.gov>; CMRKLIN@nrc.gov <CMRKLIN@nrc.gov>; Serenci, Diane <Diane.Serenci@nrc.gov>; Scott.Burnell@nrc.gov <Scott.Burnell@nrc.gov>; Brozowski,George@epamail.epa.gov <Brozowski,George@epamail.epa.gov>
Sent: Fri Mar 19 19:11:13 2010
Subject: andrews county Waste dump and aquifer map

I would really like to ask something. Consider the fact that nuclear waste is being buried over an aquifer and in a seismic hazard zone in Andrews county Texas. Along with PCB waste in the future.. Call me old fashioned, but this sounds like a danger to the public. People live very close to this place just across the line in NM. And the NRC has licensed facilities in Lea county in the same seismic hazard area.

Page 1 of 5

Commentor No. 45 (cont'd): Phillip Barr

And the determination of the hazard was done by the US geological survey. Not a bunch of tree-hugging hippies.

The NRC, DOE, and EPA are supposedly responsible for nuclear safety to the public. But everyone I've written about this in these agencies have ignored it completely. They appear to set their responsibility for safety aside.

What you see out here you may think off as the boondocks, but to us its home.

Is there a legal penalty on the books to NRC; DOE and EPA employees who ignore nuclear safety hazards to the public? If not there should be.....

Phillip Barr nm

<http://www.mesawater.com/ogallala.asp>

I added this Ogallala aquifer map from Mesa Water. See link or file.

From: pharb2@msn.com <pharb2@msn.com>
To: Levenstein, David; michael.weber@nrc.gov <michael.weber@nrc.gov>; General, Inspector (OIG) <Inspector.General@usdoj.gov>; oreilly <oreilly@foxnews.com>; glennbeck <glennbeck@foxnews.com>; sean hammy <hammy@foxnews.com>; Quinn, Laura <Laura.Quinn@nrc.gov>
Cc: Matthew <Matthew.Barlett@nrc.gov>; tejt@nrc.gov <tejt@nrc.gov>; nmilady2000 <nmilady2000@hotmail.com>; Pena Hector@epamail.epa.gov <Pena.Hector@epamail.epa.gov>; Brozowski,George@epamail.epa.gov <Brozowski,George@epamail.epa.gov>; hill.troy@epamail.epa.gov <hill.troy@epamail.epa.gov>
Sent: Mon Mar 01 10:57:42 2010
Subject: News tip for Fox news

How about a change from all the health care bill reporting on fox?
And I have a suggestion.

Shows government at work.

A uranium enrichment plant licensed by federal agencies and under construction in Lea county, New Mexico.

Its in the indicated hazard area in the lower right hand corner of New Mexico. And across the border in Andrews county Texas, a large nuclear waste and pcb waste dump has been licensed by federal agencies and under construction in the same hazard area.

And here's the interesting part. According to the USGS(see below) that area for

**45-1
cont'd**

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Commentor No. 45 (cont'd): Phillip Barr

both facilities is in a seismic hazard area.

And I bet any of these federal employees would be glad to explain how that is safe.

<http://earthquake.usgs.gov/earthquakes/states/texas/hazards.php>

Regards
Phillip Barr
mm

From: pharb2@msn.com <pharb2@msn.com>
To: matthew.bartlett@nrc.gov <matthew.bartlett@nrc.gov>; nmlady2000 <nmlady2000@hotmail.com>; aguavida@valornet.com <aguavida@valornet.com>; Levenstein, David
Sent: Wed Feb 10 08:58:40 2010
Subject: Seismic Hazard map for Western Andrews county Texas and Eastern Lea county, New Mexico

I would like to donate this page from the USGS to the Department of Energy and the nuclear regulatory commission concerning the Seismic Hazard Map for Western Andrews county Texas and Eastern Lea county, New Mexico.

Mrs. Gardner, make sure all your friends that are concerned for their safety get a copy of this email showing the NUCLEAR REGULATORY COMMISSION and DEPARTMENT OF ENERGY have been made aware of the EARTHQUAKE hazard in that area.

I request they take the USGS map into consideration when considering any nuclear storage or activity in that area.

Phillip Barr
New Mexico

<http://earthquake.usgs.gov/earthquakes/states/texas/hazards.php>

From: pharb2@msn.com [mailto:pharb2@msn.com]
Sent: Tuesday, December 01, 2009 11:54 AM
To: radnat@ceq.state.tx.us; inspector.general@usdoj.gov; Levenstein, David; GSmith@tceq.state.tx.us; president@messages.whitehouse.gov; Brozowski.George@epamail.epa.gov; Miller.Gary@epamail.epa.gov; Starfield.Lawrence@epamail.epa.gov; wright.larry@epa.gov; breen.harry@epa.gov; Cyrus.Rosch.greg.abbott@oag.state.tx.us; senator@hutchison.senate.gov; rick.perry@governor.state.tx.us; Pena.Hector@epamail.epa.gov; hill.troy@epamail.epa.gov; erin@brockovich.com; Gilrein.Stephen@epamail.epa.gov

Response side of this page intentionally left blank.

Commentor No. 45 (cont'd): Phillip Barr

Subject: Andrews county Hazardous waste site
I understand the EPA is going to do another study in the future on the hazardous waste dump site in Andrews county Texas.
I would ask the EPA to look at this aquifer map and web page from this company.
I found this map as a favor for a well owner in the area.

regards
Phillip Barr
New Mexico

From: pharb2@msn.com [mailto:pharb2@msn.com]
Sent: Wednesday, August 12, 2009 11:00 AM
To: Levenshtein, David; Scott.Burnell@erc.gov; Starfield.Lawrence@epamail.epa.gov; Gilrein.Stephen@epamail.epa.gov; nmlady2000
Cc: 60m@cbsnews.com; greggharman@gmail.com; editors@texasobserver.com; glembeck@foxnews.com; Political@gop.com; copielat@texasgop.org
Subject: question to the DOE, NRC and EPA

Same Simple question that I posed to the republican party and the WH-
Who came up with the idea of storing nuclear waste, and soil with pchs directly over an area that has a history of earthquakes and is over a main aquifer in Andrews county Texas? Its my understanding theres a lot more Toxic material they want to dump in that place.

If this area is so safe; seems like an answer as to who thought up the idea of building that dumpsite there in the first place would be easy.

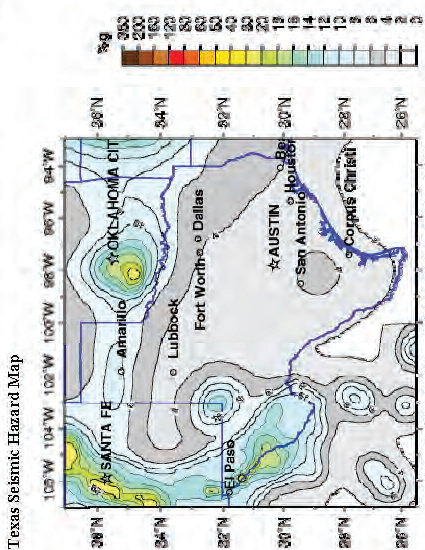
Phillip Barr
New Mexico
(republican)

1. State of Texas source on the earthquakes
2. Epa on the water

Response side of this page intentionally left blank.

Commentor No. 45 (cont'd): Phillip Barr

[Attachments or material referenced in Mr. Phillip Barr's comments above.]



National Seismic Hazard Mapping Project (2008)

Seismic Map accessed via <http://earthquake.usgs.gov/earthquakes/states/txas/hazards.php>

The second figure referenced is copyright material from Mesa Water, Inc. website and is not included in this Comment Response Document; however, can be accessed via <http://www.mesawater.com/ogallala.asp>

Response side of this page intentionally left blank.

Commentor No. 46: Phillip Barr

46-1

DOE acknowledges the commentor's concerns regarding depth to groundwater, land subsidence and sinkholes, and earthquakes as they relate to potential mercury storage operations at WCS. With regard to groundwater, Chapter 3, Section 3.8.3.2, of this *Mercury Storage EIS* summarizes existing groundwater conditions at WCS, based on relevant information obtained and reviewed by DOE. Chapter 4, Section 4.4.3, addresses the impacts of facility construction and routine operations on surface-water and groundwater resources. As described in Section 4.9.3.2, construction of a mercury storage facility at WCS is not expected to affect groundwater due to the depth to groundwater and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). No mercury would be stored below ground level.

Section 3.8.2.1 of this EIS describes the geologic strata that underlie WCS, and Section 3.8.2.3 summarizes the geologic hazards in the vicinity of WCS, including the presence of subsidence features attributable to salt dissolution in the Permian Basin and earthquakes. However, no subsidence features have been identified in the vicinity of WCS; the closest such features are located about 24 to 32 kilometers (15 to 20 miles) from WCS.

As for earthquakes, Chapter 2, Table 2-4, shows that WCS has one of the lower measures of seismic risk among the seven candidate locations. In addition to evaluating the historical seismicity of each site, the analysis included using the latest probabilistic earthquake ground motion data from the U.S. Geological Survey to specifically compare the candidate sites. Appendix B, Table B-4, presents a general comparison of the earthquake measures used in this EIS. Chapter 3, Section 3.8.2.3, of this EIS describes the historical seismicity of the WCS region (i.e., frequency and location of earthquakes). As noted by the commentor, the 1992 "Rattlesnake Canyon earthquake" produced Modified Mercalli Intensity V shaking at its epicenter location. As shown in Table B-4, such an earthquake is considered light in terms of shaking effects. Chapter 4, Section 4.9.9.2, specifically assesses the effects earthquakes could have on a mercury storage facility at WCS and concludes that the risk is minimal. This conclusion is based on the predicted peak ground acceleration of 0.12 g (force of acceleration relative to that of Earth's gravity) at the site from an earthquake with an annual probability of occurrence of 1 in 2,500. Ground motion in this range could cause slight damage to ordinary structures, but is not expected to affect modern structures that have been designed and constructed to withstand the assessed hazard. The proposed long-term mercury storage facility would be located, designed, and built in accordance with local building codes, and design factors to mitigate potential impacts from land subsidence and seismic events would

46-1

[Note to Reader: Mr. Phillip Barr submitted the comments shown below via website, e-mail, fax, and regular mail. Duplicative comments, extraneous attachments, and/or submissions are not repeated in this Comment Response Document. A complete copy of the original submissions are included in the Administrative Record.]

From: pharb2@msn.com [<mailto:pharb2@msn.com>]
Sent: Thursday, January 28, 2010 1:41 PM
To: JEFF BINGAMIAN; Levenstein, David
Cc: inspector_general@usdoj.gov; matthew_bartlett@nrc.gov; donna.hoffman; pryors02@suddenlink.net; nmlady2000
Subject: storage safety at andrews county Texas waste site

As I understand the rules on waste disposal at the Waste control Dump site in Andrews county Texas, some wastes cannot be disposed of over ground water and in an area with a history of earthquakes. Here are articles where TCEQ (Texas Commission on environmental quality) employees say the water is under the site at 14 feet under a certain trench. These are trained professionals. State of Texas employees An EPA official also says water under the site.

- Its my concern that the :
1. State of Texas, DOE, EPA, and the NRC are ignoring the work of these trained state and federal employees.
 2. That the water under the site and the earthquake history at the site is being ignored by the EPA; DOE, NRC, and State of Texas.
 3. That any safety risks to people who live close to this dump in New Mexico are being ignored because of a state line. Environmental justice seems to have been set aside .

Got a question:
 State and federal offices have been made aware of these pre-existing conditions: If there is another quake at the waste dump or a sink hole forms on site and the result of either is the waste gets into the aquifer:

Is that negligence on the part of NRC; EPA; DOE; State of Texas?
 Phillip Barr
 NM

From: pharb2@msn.com [<mailto:pharb2@msn.com>]
Sent: Wednesday, January 27, 2010 4:08 PM
To: JEFF BINGAMIAN; Levenstein, David; matthew_bartlett@nrc.gov
Cc: nmlady2000; donna.hoffman; pryors02@suddenlink.net
Subject: consolidated comment on storage safety at andrews county Texas waste site nb1

As I understand the rules on waste disposal at the Waste control Dump site in Andrews county Texas, some wastes cannot be disposed of over ground water and in an area with a history of earthquakes. Here are articles where TCEQ (Texas Commission on environmental quality) employees say the water is under the site at 14 feet under a certain trench. These are trained professionals. State of Texas employees An EPA official also says water under the site.

Commentor No. 46 (cont'd): Phillip Barr

be considered. Also, as summarized in Section 4.11.1, impacts on water resources and waste management from constructing and operating a mercury storage facility were projected to be negligible; therefore, these resource areas were not considered further in the context of cumulative impacts at WCS. A geotechnical study would be conducted to confirm site geologic characteristics for facility siting and engineering purposes, as noted in Section 4.9.2.1 of this EIS. This would include determination of the depth to groundwater beneath the mercury storage facility.

46-1
cont'd

county Texas, some wastes cannot be disposed of over ground water or in an area with an earthquake history. Its my concern that the Doe , NRC and State of Texas are ignoring the information about the earthquake history at the area of the WC dump site in Andrews county. This study is worth looking at. It was sent during the comment period. Ck the date. That was a 4.6 earthquake in 92 in the area of the WC dump.

All this goes into the public sector.

Phillip Barr
NM

----- Original Message -----
From: pharb2@msn.com <<mailto:pharb2@msn.com>>
To: president@messages.whitehouse.gov <<mailto:president@messages.whitehouse.gov>>; Jackson.lisa@epa.gov <<mailto:jackson.lisa@epa.gov>>; Roger V.ughan <<mailto:R.V.ughan@tceq.state.tx.us>>; The.Secetary@hq.doe.gov <<mailto:The.Secetary@hq.doe.gov>>; radmat@tceq.state.tx.us <<mailto:radmat@tceq.state.tx.us>>; Robert Belckis <<mailto:R.Belckis@tceq.state.tx.us>>; greg.abbott@oag.state.tx.us <<mailto:greg.abbott@oag.state.tx.us>>; rick.perry@governor.state.tx.us <<mailto:rick.perry@governor.state.tx.us>>; inspector_general@usdoj.gov <mailto:inspector_general@usdoj.gov>; LGloyste@tceq.state.tx.us <<mailto:LGloyste@tceq.state.tx.us>>; Jackie Hurdee <<mailto:JHURDEE@tceq.state.tx.us>>; augerson.shirley@epa.gov <<mailto:augerson.shirley@epa.gov>>
Cc: SJABLONS@tceq.state.tx.us <<mailto:SJABLONS@tceq.state.tx.us>>; Gilrein.Stephon@epamail.epa.gov <<mailto:Gilrein.Stephon@epamail.epa.gov>>; CKuharie@tceq.state.tx.us <<mailto:CKuharie@tceq.state.tx.us>>; PShaver@tceq.state.tx.us <<mailto:PShaver@tceq.state.tx.us>>; SSimmmons@tceq.state.tx.us <<mailto:SSimmmons@tceq.state.tx.us>>; GSmith@tceq.state.tx.us <<mailto:GSmith@tceq.state.tx.us>>; HWeger@tceq.state.tx.us <<mailto:HWeger@tceq.state.tx.us>>; Dateline@mbctm.com <<mailto:Dateline@mbctm.com>>; Jessica.Farrar@house.state.tx.us <<mailto:Jessica.Farrar@house.state.tx.us>>; 60m@cbnews.com <<mailto:60m@cbnews.com>>; David.levenstein@em.doe.gov <<mailto:David.levenstein@em.doe.gov>>; Kelly.Hancock@house.state.tx.us <<mailto:Kelly.Hancock@house.state.tx.us>>; Jim.Dunnam@house.state.tx.us <<mailto:Jim.Dunnam@house.state.tx.us>>
Sent: Thursday, August 20, 2009 5:41 PM
Subject: consolidated comment on storage safety at andrews county Texas waste site nb1

Its my belief that the geology at the Andrews county TX waste site area is not stable enough for a nuclear pcb/Mercury storage site.
I. I submit these news reports on the sinkhole activity in the area.

Page 2 of 5

Commentor No. 46 (cont'd): Phillip Barr

Sinkholes north and south of the nuclear waste site at Andrews county Texas and the waste site area itself has an earthquake history that's on record.
2. Earthquake study 12a,12b, 12w-a on record.

The state of Texas and federal government's safety analysis on the andrews county dump is hypothetical at best because :
The State of Texas and the Nrc, EPA and Dve can not guarantee there will not be another earthquake at the Andrews county Texas waste site which would endanger the aquifer which is under the site as determined by the epa:

News quote "But David Barry, spokesperson for the Environmental Protection Agency for Region 6 says, "Yes, the facility does sit above the Ogallala aquifer. It sits on the southern end of the aquifer."

The state of Texas, EPA,NRC,DOE also cannot guarantee that in an area with sinkholes, one would not form under the waste site.
High winds and sandstorms blowing toxic particles offsite and over Eunice and Hobbs. There is no way to prevent this and at no time has any government agency demonstrated to the public how to do so.

I believe for the Federal Government and the State of Texas to open up a waste dump for anything toxic at the andrews county nuclear waste site with this sinkhole and earthquake history is highly irresponsible and a disaster waiting to happen.

Phillip Barr
Lea county, New Mexico

Yoakum county north of the site
<http://www.newswest9.com/Global/story.asp?S=10811930><<http://www.newswest9.com/Global/story.asp?S=10811930>>
Giant Sinkhole Opens Near Denver City
Posted: July 29, 2009 11:43 AM MDT

Winkler county south of the site
<http://www.kwes.com/Global/story.asp?S=7936458><<http://www.kwes.com/Global/story.asp?S=7936458>>
or

www.kwes.com/Global/story.asp?S=7936458<<http://www.kwes.com/Global/story.asp?S=7936458>>
Wink Sink Study Needs Funding
by Victor Lopez
NewsWest 9

From: pharb2@msn.com [mailto:pharb2@msn.com]
Sent: Thursday, November 19, 2009 8:51 PM

Response side of this page intentionally left blank.

Commentor No. 46 (cont'd): Phillip Barr

To: president@messages.whitehouse.gov; jackson.lisa@epa.gov; Roger Vaughan; The Secretary; radmat@tceq.state.tx.us; greg.abbott@oag.state.tx.us; risk.perry@governor.state.tx.us; inspector.general@usdoj.gov; LGHoyate@tceq.state.tx.us; Jackie Hardee
Cc: SJABLONS@tceq.state.tx.us; Gilrein.Steph@epamail.epa.gov; CKuharic@tceq.state.tx.us; PShaver@tceq.state.tx.us; SSimmons@tceq.state.tx.us; GSmith@tceq.state.tx.us; Daiteline@nbcuni.com; Jessica.Farrar@house.state.tx.us; 60m@chsnews.com; Levenstein, David; Kelly.Hancock@house.state.tx.us; Jim.Dunnam@house.state.tx.us
Subject: something to think about

The Andrews county Texas nuclear dump is in an established area of sinkholes and earthquakes. If the nuclear or pcb waste brakes containment by either one, would there be a similar liability to the Federal government and the State of Texas like there was to the ship channel in New Orleans that the Army Corps of engineers recently lost a lawsuit on? (Established hazards ignored.)

I think you guys need to ask yourselves this one.....

regards
 Phillip Barr
 New Mexico

From: pharb2@nsn.com [mailto:pharb2@nsn.com]

Sent: Thursday, November 05, 2009 2:35 PM

To: radmat@tceq.state.tx.us; inspector.general@usdoj.gov; Levenstein, David; GSmith@tceq.state.tx.us; president@messages.whitehouse.gov; Brozowski.George@epamail.epa.gov; Miller.Gary@epamail.epa.gov; Starfield.Lawrence@epamail.epa.gov; wright.larry@epa.gov; breen.barry@epa.gov; Cyrus.Reed; greg.abbott@oag.state.tx.us; risk.perry@governor.state.tx.us; Pena.Hector@epamail.epa.gov; hill.troy@epamail.epa.gov; erin@brockovich.com; mmady2000

Cc: Gilrein.Steph@epamail.epa.gov

Subject: note to the epa about Andrews county TX waste dump

I understand the EPA is going to do another study on the Waste control dump site in Andrews county Texas.

I would ask the EPA to look at:

1. what the TCEQ site team said about the site being unsuitable in regards to the geology.
2. The statements of an EPA official named David Barry who said the Ogallala is directly under the site
3. A State of Texas funded study by the Jackson school of Geosciences that says the area has a history of earthquakes. Study done for the Texas governors office.

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Commentor No. 46 (cont'd): Phillip Barr

It seems a waste to ignore all these statements and studies made by Texas state and federal officials or funded by Texas or Federal tax dollars.

Add in news reports of sinkholes in counties north, south and west of the site.

All this has been submitted during the comment period. Several times.

Phillip Barr
New Mexico
concerned citizen

From: pharrh2@msn.com [mailto:pharrh2@msn.com]

Sent: Tuesday, November 03, 2009 5:56 PM

To: Gilrein,Stephen@epamail.epa.gov

Cc: radmat@teq.state.tx.us; inspector-general@usdoj.gov; Levenstein, David; GSmith@teq.state.tx.us; president@messages.whitehouse.gov;

Brozowski,George@epamail.epa.gov; Miller,Gary@epamail.epa.gov;

Starfield,Lavrence@epamail.epa.gov; wright,larry@epa.gov; broen,barry@epa.gov;

Cyrus Reed, greg.abbot@oag.state.tx.us; nick.perry@governor.state.tx.us;

Pena,Hector@epamail.epa.gov; hill,troy@epamail.epa.gov; erm@brockovich.com;

mm1ady2000

Subject:

Got a question guys,

What happens to containment at the Waste control dump site in andrews county Texas if there is another 4.6 earthquake there and a sinkhole(s) form under the covered nuclear waste and the PCB waste?

Phillip Barr
New Mexico
concerned citizen

[Attachments or material referenced in Mr. Phillip Barr's comments above.]

NewsChannel 11 Investigates: Toxic Waste Coming to West Texas, Part 1

Posted: April 27, 2009 04:21 PM MDT

NewsChannel 11 Investigates: Toxic Waste Coming to West Texas, Part 2

Posted: April 28, 2009 07:20 PM MDT

NewsChannel 11 Investigates: Toxic Waste Coming to West Texas, Part 3

Posted: April 29, 2009 05:48 PM MDT

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46-1
cont'd

**Commentor No. 47 : Earl Lott, Director, Waste Permits Division
Texas Commission on Environmental Quality**



Bryan W Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubenstein, *Commissioner*
Mark R. Vickery, P.C., *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 2, 2010

Mr. David Levenstein
EIS Document Manager
Office of Environmental Compliance (EM-41)
U.S. Department of Energy
P.O. Box 2612
Germanstown, MD 20874

Re: Comments on Proposed Mercury Storage Site

Dear Mr. Levenstein:

Thank you for meeting with us by conference call on June 30, 2010 and for the opportunity to prepare formal comments in regard to the Texas Commission on Environmental Quality's (TCEQ) review of the Federal Register notice, the Draft Environmental Impact Statement, and referenced materials on the Department of Energy (DOE) website regarding the Mercury Export Ban Act of 2008 (MEBA) and DOE's proposed preferred designated facility in Andrews, Texas. TCEQ welcomes the opportunity to participate as a cooperating agency in the DOE's efforts to implement in consultation with appropriate state agencies in potentially affected states from the Draft Environmental Impact stage through the start up date of January 1, 2013 and throughout the permitting process deadline of January 1, 2015.

TCEQ offers the following comments:

- 1) Please confirm whether DOE will own and operate a separate and new federal facility in Andrews, Texas. Under Texas law, DOE, as owner, is liable for any harm caused by the mercury from the point of delivery and through clean closure. Please clarify whether DOE would take title to all mercury for storage in the facility and to the underlying property and land interests. DOE may not be aware that the State of Texas owns the mineral interests below the proposed site. If liability of mercury generators is limited, then TCEQ suggests that DOE should indemnify the State of Texas. TCEQ would prefer that any application for permitting expressly represent this role in conformance with Texas and federal laws and regulations. Please be aware that any application under state solid waste rules would be subject to public participation and a potential administrative hearing.

- 2) Financial Assurance is required for any Resource Conservation Recovery Act (RCRA) activity in the State of Texas. Governmental entities would be exempt from this requirement only if they are a permit holder. As MEBA requires state permitting and "management under RCRA," TCEQ seeks to address certain aspects of financial assurance as required by TCEQ prior to final decision-making. Also, please note that if Waste Control Specialties (WCS) is the permit holder, even if WCS seeks to modify their existing RCRA permit, then WCS financial assurance is

¹ 75 Fed. Reg. 4801 (January 29, 2010).

P.O. Box 13087 Austin, Texas 78711-3087 Internet address: www.tceq.state.tx.us
512-239-1000
Printed on recycled paper using soy based ink.

47-1

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*. As described in Chapter 1, Section 1.4, of this *Mercury Storage EIS*, DOE will consider the environmental impact information presented in this final EIS, as well as other factors (e.g., cost, schedule, strategic objectives, and public comments), when making long-term mercury management and storage decisions.

At WCS, DOE proposed to construct a new mercury storage facility, as described in Chapter 2, Sections 2.2.1 and 2.3.1, and Appendix C of this EIS. As noted in Section 2.4.8, DOE might consider using the existing Container Storage Building at WCS to store mercury on an interim basis until construction of a new facility is completed.

As described in Chapter 1, Section 1.2, DOE would take ownership of the mercury delivered to a designated facility and indemnify the generators from future liability in accordance with the provisions of the Mercury Export Ban Act of 2008 (P.L. 110-414). The mercury would remain under DOE ownership regardless of the contractual arrangement for storage. DOE would be responsible for any harm caused by the mercury after such mercury is delivered to a designated facility.

DOE has interpreted Section 5 of the Act to authorize DOE to designate existing and/or new storage facilities at property owned or leased by DOE. Accordingly, if DOE decides to designate a facility that currently is owned by a commercial entity or by another Federal agency, DOE would acquire an appropriate ownership or leasehold interest in that facility to comply with Section 5 of the Act. DOE would ensure that any such facility currently owned by a commercial entity or by another Federal agency would afford DOE the opportunity to exercise the same level of responsibility and control over stored mercury as a facility owned by DOE.

Discussion of the potential applicability of financial assurance provisions is premature because DOE's legal relationship to the designated facility has not been determined. As stated in response to Comment No. 47-1, DOE would take ownership of the mercury delivered to a designated facility and indemnify

47-1

47-2

47-2

**Commentor No. 47 (cont'd): Earl Lott, Director, Waste Permits Division
Texas Commission on Environmental Quality**

Mr. David Levenstein
Page 2
July 2, 2010

currently insufficient to provide protection for the indemnification that the DOE would be responsible to remunerate in regard to short-term or long-term liability. WCS has existing RCRA permits in Texas with financial assurance under a corporate guarantee. The corporate guarantee would not cover the MEBA activity under any applicable RCRA mechanism in Texas. Thus, it would be inappropriate to rely on WCS's existing financial assurance or terms of any existing WCS permits.

- 3) If liability of mercury generators is limited, then TCEQ suggests that DOE should indemnify the State of Texas. Please elaborate on how DOE commits to make indemnification payments and what kind of indemnity language would be executed as briefly mentioned in the MEBA and draft EIS. Also, it should be noted again that WCS's financial assurance is insufficient to provide protection for the indemnification that the DOE would be responsible to remunerate in regards to short-term or long-term liability.
- 4) TCEQ would expect that details regarding the manifesting of elemental mercury shipments as delivered to the facility would be in compliance with Texas laws and would offer that it may not be appropriate for WCS employees or contractors to sign manifests without some agreement in place regarding long-term liability as the generator has an indemnity from DOE.
- 5) At the end of the storage term, does DOE plan to have a "clean closure" as that term is defined in Federal and State laws and regulations? In its draft Environmental Impact Statement (EIS)², the DOE states that it would remove all elemental mercury in storage and transport it to suitable Transportation Storage and Disposal facilities when it performs closure activities, 40 years after the facility is created. In addition, the draft EIS states that the DOE will take financial responsibility for closure. TCEQ prefers that DOE commit to future performance of the closure activities as presented in their draft EIS and as required by applicable federal and state laws.
- 6) Similarly, once clean closure is complete would DOE commit to perform post-closure actions to clean the area through applicable permitting and post-closure orders as required by Texas law.

TCEQ realizes that responses to formal comments are pending, and appreciates DOE's time and attention. Please contact myself at elot@tceq.state.tx.us or (512) 239-2047 or Ms. Amie Richardson, Staff Attorney, Environmental Law Division at arichard@tceq.state.tx.us or (512) 239-2999 to arrange future communications or to address any questions you may have.

Sincerely,

Earl Lott
Earl Lott, Director
Waste Permits Division
Texas Commission on Environmental Quality

² DOE EIS 443/798

47-2
cont'd

47-3

47-4

47-5

47-6

47-3

47-4

47-5

the generators from future liability in accordance with the provisions of the Act. The mercury would remain under DOE ownership regardless of the contractual arrangement for storage. DOE would be responsible for any harm caused by the mercury after such mercury is delivered to a designated facility.

As stated in response to Comment No. 47-1, DOE would take ownership of the mercury delivered to a designated facility and indemnify the generators from future liability in accordance with the provisions of the Act. The mercury would remain under DOE ownership regardless of the contractual arrangement for storage. DOE would be responsible for any harm caused by the mercury after such mercury is delivered to a designated facility. Under the Anti-Deficiency Act, the ability of the United States to agree to indemnification arrangements is limited. See 31 U.S.C. 1341. As stated in response to Comment No. 47-2, discussion of financial assurance is premature.

Manifesting of elemental mercury shipments would be in compliance with applicable Federal and state laws and regulations. In signing manifests and accepting mercury for storage, DOE employees or designated contractor employees would be acting as agents of DOE. As stated in response to Comment No. 47-1, DOE would take ownership of the mercury delivered to a designated facility and indemnify the generators from future liability in accordance with the provisions of the Act. The mercury would remain under DOE ownership regardless of the contractual arrangement for storage. DOE would be responsible for any harm caused by the mercury after such mercury is delivered to a designated facility.

Closure would be performed in compliance with applicable Federal and state laws and regulations. Chapter 4, Section 4.10, briefly describes the potential impacts of facility closure. Closure would be executed in accordance with a detailed closure plan prepared by the facility operator (i.e., by DOE or DOE's authorized contractor). This plan would be subject to review and approval by EPA or the state's environmental protection agency responsible for permitting the long-term elemental mercury storage facility. Environmental contamination is not expected because the mercury storage facility(ies) would be a permitted hazardous waste storage facility(ies) in which mercury would be stored in sealed containers or epoxy coated and curbed floors.

It is possible that after closure, the former mercury storage building could be reused. Future plans for facility reuse or other disposition would be the subject of additional NEPA documentation, as appropriate.

***Commentor No. 47 (cont'd): Earl Lott, Director, Waste Permits Division
Texas Commission on Environmental Quality***

47-6

DOE expects that clean closure could be accomplished such that postclosure care would not be required. In any case, closure and any required postclosure care or monitoring would be performed in compliance with applicable Federal and state laws, regulations, and permits.

Comment side of this page intentionally left blank.

Campaign A

The Secretary

From: Raymond J. Dauphinais (rdauphinais@mccarthy.com)
Sent: Friday, October 02, 2009 1:50PM
To: The Secretary
Subject: Opposing storage of mercury at Grand Junction Disposal Site in Colorado

Secretary Steven Chu,

I am writing to oppose the office of Legacy Management's consideration of the Grand Junction Disposal Site in Colorado to permanently store thousands of tons of toxic mercury waste.

The risks posed by this plan are simply too great. That's why I am joining with Colorado Governor Bill Ritter and other concerned Coloradans to oppose any shipment of mercury waste to the Department's disposal facility on Colorado's Western Slope. This dangerous and harmful material should be stored near where it was generated, rather than transported thousands of miles and dumped in Colorado.

Thank you for removing Colorado's Grand Junction Disposal Site from consideration for the long-term management and storage of elemental mercury.

Raymond J. Dauphinais
 9945 W. 34th Dr.
 Wheat Ridge, CO 80033

||| A-1

||| A-2

||| A-3

A-1 DOE acknowledges the commentator's opposition to the long-term management and storage of elemental mercury at GJDS.

A-2 DOE acknowledges the commentator's concerns about the risks of management and storage of elemental mercury in Colorado. This *Mercury Storage EIS* contains a comprehensive assessment of the risks to workers and members of the public that encompasses all sites and transportation routes, including Colorado. Chapter 2, Table 2-2, of this EIS provides a summary (applicable to all sites) of the risk and impacts associated with all of the accident scenarios analyzed in this EIS. This shows that the risks to the public associated with these scenarios are in the negligible-to-low range.

DOE acknowledges the commentator's statement that elemental mercury should be stored close to its point of origin. However, note that mercury will be placed in long-term storage within the proposed facility(ies), and not dumped or otherwise disposed of in or on the ground.

The Mercury Export Ban Act of 2008 (P.L. 110-414) does not require generators to store their elemental mercury at a DOE site; thus, some or all such mercury could be stored at or close to its point of origin, thereby reducing its movement around the country. However, DOE is required under Section 5 of the Act to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States, thus providing a storage alternative. Specific details related to the selection of the alternative storage sites analyzed in this *Mercury Storage EIS* are set forth in Chapter 1, Section 1.5.1.

A-3 DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Campaign A (cont'd)

Commentors that also submitted Campaign A

Maxwell Aley
Sarah Aley
Carol Bach
Roger Belfuss
Joel Bradley
Raymond J. Dauphinais
Max Eisele
Tasha Enright
Nicole Griffin
RoseAnn Hausman
Ray Jennings
Sara Kraus
Richard Lirtzman
Kerstin Nernitz
Randal O'neal
Judy Pflaus
Alan Ponelli
Ted Schultz
Beverly Smith
Dalayne Vollstedt
Leonard Weiss
Marla Wilcox
Carmen Wide
Kristine Williams
Juanita Wright

Response side of this page intentionally left blank.

Campaign B

From: comment@mercurystorageeis.com
To: MercuryEIS@saic.com
Subject: Mercury Storage EIS – Comment
Sent: Friday, March 19, 2010 6:25 PM

Dear Mr. David Levenstein and U.S. Department of Energy

The following are comments from the Sustainable Energy and Economic Development SEED Coalition and Public Citizen on the Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement, the Mercury Storage EIS, DOE/EIS-0423D.

Texas is already under assault from toxic mercury from coal burning power plants. They spewed over 11,000 pounds into our air in 2007. Our children are at risk for permanent brain damage from mercury exposure and unfortunately we rank worst in the nation for coal plant emissions. This must change and emissions must be reduced.

Texas needs less mercury, not more. Now the DOE supports Texas as the preferred site for storing up to 11,000 tons of toxic elemental mercury.

Why should Texas be the national dumping ground for stored toxic mercury? I do not support 11,000 tons of toxic mercury coming to our state and proudly say "Don't Mess With Texas."

An artificial 40-year timeframe has been constructed for this storage effort but the truth is that elemental mercury lasts forever, and someone will have to continually repackage mercury flasks for centuries to come. Can we assured that this will be possible at a site that will take huge amounts of radioactive and hazardous waste? Will it always be accessible?

The option to consider multiple sites was simply written off and not examined in your draft EIS, although it should have been. There are many viable sites under consideration; some that have military security and some that already store mercury. Some of it, including the DOE mercury at the Y-12 National Security Complex in Tennessee, could stay where it is. There is no reason to ship mercury here from around the country increasing the number of trucks and trains in Texas carrying loads of toxic mercury and increasing risks of a serious accident.

B-1 This *Mercury Storage EIS* addresses the long-term storage of elemental mercury. Chapter 4, Section 4.9.4.2, discusses projected air emissions resulting from the construction and operation of a mercury storage facility. The cumulative effect of air emissions at WCS is discussed in Section 4.11.3.7.3; this section includes a reference to Section 4.11.3.1.3, where other sources of mercury emissions, including those from coal-fired power plants, are also considered in the cumulative impacts analysis.

B-2 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS. Tables 2-1 and 2-2 in Chapter 2, Section 2.7 provide a comparison of alternatives.

B-3 As described in Chapter 1, Section 1.3.1, although the Mercury Export Ban Act of 2008 (P.L. 110-414) contemplates indefinite storage, DOE has used a 40-year period of analysis in this *Mercury Storage EIS* for the purposes of evaluating potential environmental impacts associated with long-term storage. Additional NEPA documentation would be required to evaluate extending storage facility operations beyond the 40-year period of analysis.

Regarding the commentor's concern about repackaging flasks over the long-term, the Handling Area described in Chapter 2, Section 2.3.2, and in Appendix C, Section C.2.1, would be used to transfer mercury from leaking containers into new containers in a safe and controlled manner. DOE expects that very few flasks will leak over the 40-year period of analysis. As described in Section D.2.3, based on historical evidence, it is estimated that one flask will leak every 11 years, assuming the maximum expected number of flasks (approximately 120,000) are maintained in storage. Leaking flasks would be quickly identified during regular Storage Area inspections and immediately moved to the Handling Area for repackaging. The management and operation of an elemental mercury storage facility(ies) would be independent of other site waste management activities, and, because the mercury would be stored aboveground in a warehouse type building, it will remain accessible.

B-4 DOE acknowledges the commentor's statement that elemental mercury should be stored at multiple sites. However, as noted in Chapter 2, Section 2.6.1, DOE eliminated the alternative of multiple sites from further evaluation because the duplicative resources that would be required would not be cost-effective. The site selection process is described in Chapter 1, Section 1.5.1.

B-1

B-2

B-3

B-4

Campaign B (cont'd)

Furthermore, this a grand experiment in risking the mixing toxic and hazardous materials with dangerous radioactive materials all at one site? Why has no cumulative impacts analysis been conducted? The WCS site is licensed to take hazardous waste. Highly radioactive "K-65" weapons waste from Fernald is already onsite and they're licensed to take over 59 million cubic feet of radioactive waste.

Where is there no independent analysis of the groundwater level as opposed to information provided by Waste Control Specialists, the company that would benefit by taking more waste?

The characterization of the site is inadequate and inaccurate. Tornadoes and earthquakes pose serious risks that need to be further examined. There have been 21 tornadoes in 42 years. Cars can be lifted and houses lifted off of their foundations by tornadoes. It is unreasonable to assume that a building not specifically reinforced and designed to withstand a tornado would do so, and there should be requirement for reinforcing the building exterior if a facility is built at this site. Containers of mercury spread throughout West Texas as a result of a tornado would be a true disaster.

Despite claims to the contrary, groundwater lies beneath trenches adjacent to where the mercury would be stored. Independent analysis of the exact location must be conducted. Relying on WCS studies is inadequate. Three former TCEQ employees quit the agency in protest of licensing the radioactive waste facility due to the inadequacy of the site, including the fact that groundwater is only 14 feet below the bottom of some trenches. Fractures and fissures, in addition to onsite wells, provide pathways through which contamination could spread. Several aquifers are in the region. The Ogallala Aquifer underlies eight states in the wheat and soy-growing region of the U.S.

The health impacts of mercury inhalation are inaccurately minimized in the EIS. Microbeads of mercury can condense on the storage canisters, increasing the possibility of inhalation. Vapors would be monitored, but what if monitors are not calibrated correctly or are in error? Container flasks can leak and no repackaging plans or container lifespan data have been included in the EIS.

The EPA states the following regarding elemental mercury risks:

"Elemental metallic mercury primarily causes health effects when it is breathed as a vapor where it can be absorbed through the lungs. These exposures can occur when elemental mercury is spilled or products that contain elemental mercury break and expose mercury to the air, particularly in warm or poorly-ventilated indoor spaces. The first paragraph on this page lists the factors that determine

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Impacts under all the candidate sites have been determined to be negligible to minor, including transportation risks. WCS is a site that is designed for and routinely manages hazardous materials, and the proposed mercury storage activity is consistent with its current operations. The risk to the public would be low under all alternatives, and the area surrounding WCS has a low population density.

As addressed in Chapter 2, Section 2.6.1, the Mercury Export Ban Act of 2008 (P.L. 110-414) specifies that the DOE-designated mercury storage facility(ies) shall not include Y-12 or any other portion or facility of Oak Ridge Reservation. Accordingly, DOE eliminated this option as an action alternative. The Act does not require generators to transport excess mercury to the new DOE facility(ies) for long-term storage. Also, there may be some ongoing DOE missions that require the use of elemental mercury. Therefore, as described in Chapter 1, Section 1.3.1, either the entire inventory of Y-12 mercury or a portion of this inventory could be retained in storage at Y-12. See Chapter 4, Section 4.9.3, for a discussion of transportation risks associated with WCS, and Appendix C, Section C.1, which addresses the number of shipments to the site (i.e., no more than 79 trucks or 23 railcars per year).

DOE acknowledges the commenter's concerns about the cumulative impacts analysis and the compatibility of elemental mercury with other materials stored at WCS.

DOE is cognizant of compatibility issues with mercury storage. So as to mitigate any compatibility concerns, the proposed mercury storage facility(ies) would only store elemental (metallic) mercury that is at least 99.5 percent pure. As discussed in Chapter 2, Section 2.2, of this EIS, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The *Interim Guidance* discusses DOE's anticipated waste acceptance criteria for discarded mercury to be stored at the facility(ies). All mercury to be stored at the facility(ies) must meet these requirements.

B-5

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cont'd**

B-8

B-5

Campaign B (cont'd)

the severity of the health effects from exposure to mercury <<http://www.epa.gov/mercury/effects.htm#contents>>. Symptoms include these: tremors; emotional changes (e.g., mood swings, irritability, nervousness, excessive shyness); insomnia; neuromuscular changes (such as weakness, muscle atrophy, twitching); headaches; disturbances in sensations; changes in nerve responses; performance deficits on tests of cognitive function. At higher exposures there may be kidney effects, respiratory failure and death. People concerned about their exposure to elemental mercury should consult their physician." (<http://www.epa.gov/mercury/effects.htm>)

Only the handling area would be air conditioned at the WCS site. With volatilization of mercury a serious problem, the whole building should be required to be kept at a constant low temperature. Geothermal energy might be tapped for such a purpose. In such a hot desert location in Texas, the entire facility should be cooled in order to protect worker health and minimize mercury vapors. Monitors should measure mercury vapors escaping the building and a requirement should be in place to make real-time data available to the public online on an ongoing basis.

Socioeconomic factors should rule out the WCS site. Andrews County is 40% minority and 17% below poverty levels. Environmental justice is not adequately being considered in the EIS. While the area is not heavily populated, people living in the region are not dispensable and the city of Eunice, New Mexico is only 5 miles from the site.

In summary, I strongly oppose sending any toxic mercury to the WCS site in Texas and urge you to immediately reconsider other alternatives and safer sites. The EIS needs to fully analyze the many issues discussed here, conduct independent studies and strengthen requirements for mercury storage. The mercury is going to last forever, not just 40 years, and the possibility that it will remain at a designated site should be more carefully considered in developing the storage requirements, including building design.

Please reply to our comments.

Karen Hadden
Executive Director SEED Coalition
1801 Westlake Dr. 209
Austin Texas 78746
Karen@seedcoalition.org
512-797-8481

Tom Smitty Smith
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B-6 DOE acknowledges the commentor's concerns regarding groundwater at WCS, implications for existing site disposal trenches, and the need for independent analysis. Chapter 3, Section 3.8.3.2, of this *Mercury Storage EIS* summarizes existing groundwater conditions at WCS, based on relevant information obtained and reviewed by DOE. This material includes documentation from the *Application for License to Authorize Near-Surface Land Disposal of Low-Level Radioactive Waste*, which was prepared by Cook-Joyce, Inc., Intera, Inc., URS Corporation, and Washington Group, Inc., for Waste Control Specialists, LLC (WCS 2007). Note that this is the document submitted to the Texas Commission on Environmental Quality and used by that agency for the issuance of the license to construct and operate WCS. Thus, use of this material is considered appropriate for the analysis undertaken in this EIS. As described in Chapter 4, Section 4.9.3.2, construction of a mercury storage facility at WCS is not expected to affect groundwater due to the depth to groundwater and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). Also, as summarized in Section 4.11.1, impacts on water resources and waste management from constructing and operating a mercury storage facility were projected to be negligible; therefore, these resource areas were not considered further in the context of cumulative impacts at WCS. No mercury would be stored below ground level. A geotechnical study would be conducted to confirm site geologic characteristics for facility siting and engineering purposes, as noted in Section 4.9.2.1 of this EIS. This would include determination of the depth to groundwater beneath the mercury storage facility.

B-7 DOE believes that it has adequately described the potential for earthquakes and tornadoes, as well as the hazards they pose to the storage of elemental mercury. The characterization of WCS relative to earthquakes and tornadoes is presented in Chapter 3, Sections 3.8.2.3 and 3.8.4.1. Chapter 2, Table 2-4, shows that WCS has one of the lower measures of seismic risk among the seven candidate locations. Chapter 4, Section 4.9.9.2, specifically assesses the effects earthquakes could have on a mercury storage facility at WCS and concludes that the risk is minimal. A long-term mercury storage facility would be built in accordance with the requirements of DOE Order 420.1B and its companion guide (DOE Guide 420.1-2), which require that facilities be designed, constructed, and operated so that the public, workers, and environment are protected from adverse impacts of natural phenomena hazards, including earthquakes and meteorological events. The Order also stipulates natural phenomena hazards mitigation for DOE facilities. RCRA-permitted facilities, such as the proposed mercury storage facility, must also meet applicable

B-9

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B-11

Campaign B (cont'd)

design, construction, and operation requirements under Title 40 of the *Code of Federal Regulations*, Section 264.31, and applicable state RCRA requirements to prevent the release of stored wastes. Appendix D, Section D.2.5.3, presents data on the frequency and severity of tornadoes for each candidate site, including WCS. Tornadoes of severity F1 and F0 (using the Fujita or "F" scale) are not expected to cause storage building damage sufficient to result in any significant mercury release to the environment. As shown in Table D-6, the predicted annual strike rate for an F2 or more-severe tornado at WCS is less than 1 in a million. As the WCS region is susceptible to regular occurrence of high winds, the existing Container Storage Building at WCS would be upgraded as necessary and the new mercury storage facility designed and constructed to withstand the potential for high winds and tornadoes and other meteorological events, as noted in Section 4.9.4.1 of this EIS.

B-8

DOE does not expect small beads of mercury to be present on the mercury storage containers. The commentor is referring to beads of mercury that were found in the past on the surface of flasks in storage at the U.S. Department of Defense mercury storage facilities. The beads of mercury were attributed to residual contamination from the improper cleaning of the exterior of the flasks after filling and to past leaks from nearby flasks with improper welds that splashed or dripped on the flasks (DLA 2004: 3-7, 3-39). As described in Appendix D, Section D.4.1.2, even with beads of mercury on some of the flasks, readings taken in residential areas near the U.S. Department of Defense mercury storage buildings reflected mercury levels below the EPA limit for long-term exposure.

During normal operations, it is unlikely that involved workers would be exposed to concentrations of mercury vapor above the American Conference of Governmental Industrial Hygienists' (ACGIH's) 8-hour time-weighted average/threshold limit value of 0.025 milligrams per cubic meter of mercury vapor (see Appendix D, Section D.4.1.1). Regular inspections of the mercury containers would be performed in accordance with RCRA regulations within the Storage Area to ensure that no containers are corroding or leaking. Monitoring is likely to include visual inspection of the storage containers and spill trays to ensure that none are leaking and testing the airspace for elevated concentrations of mercury vapors. The mercury vapor detectors would be calibrated and tested on a regular basis to ensure correct operation. Leaking containers would be immediately moved to the Handling Area for repackaging. Chapter 2, Section 2.3.2, of this *Final Mercury Storage EIS* was modified to clarify container lifespan data, as discussed in

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Campaign B (cont'd)

Appendix D, Section D.2.3, of this EIS, with reference to an Oak Ridge National Laboratory metallurgical analysis of flasks from the U.S. Department of Defense stockpile. These showed no corrosion after many decades of use.

B-9

The mercury storage facility(ies) would be operated in accordance with all applicable regulations and the hazardous waste storage permit issued by the host state. Mercury would be stored in closed containers in the Storage Area, thereby reducing the potential for volatilization of mercury. As discussed in Chapter 2, Section 2.3.2, prior to and during occupancy, the Storage Area would be ventilated using low-vacuum, high-volume, industrial-sized roof- or wall-mounted vent fans. Additionally, regular inspections of the mercury containers would be performed in accordance with RCRA regulations, and monitoring would include testing the airspace for mercury vapors. DOE expects that very few flasks will leak over the 40-year period of analysis. As described in Appendix D, Section D.2.3, based on historical evidence, it is estimated that one flask will leak every 11 years, assuming the maximum expected number of flasks (approximately 120,000) are in storage. Leaking flasks would be quickly identified during routine Storage Area inspections and immediately moved to the Handling Area for repackaging. Section D.4.1.1 discusses and compares historical air monitoring results from previous mercury storage facilities with expected storage conditions in a new DOE facility(ies). The overall conclusion is that concentrations of mercury vapor above the American Conference of Governmental Industrial Hygienists' threshold of 0.025 milligrams per cubic meter are not likely to occur. At this time, DOE anticipates that monitoring would be limited to that described above. However, the mercury storage facility(ies) would be subject to any additional requirements imposed under the state-issued RCRA permit that would govern facility operations.

B-10

Chapter 3, Section 3.8.11, of this *Mercury Storage EIS* describes the existing distribution of minority and low-income populations within 16 kilometers (10 miles) and 3.2 kilometers (2 miles) of WCS. Chapter 4, Section 4.9.11, presents the analysis of potential environmental justice impacts, that is, the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations. As stated in Section 4.9.11, only one of the eight census block groups within the 16-kilometer (10-mile) radius of WCS contains a minority population. Based on this analysis and the public health and safety analysis presented in Section 4.9.9, implementing the WCS alternative would result in negligible offsite human health risks from mercury emissions during

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Campaign B (cont'd)

normal operations and facility accidents and negligible-to-low human health risk from transportation accidents, with no disproportionately high and adverse effects on minority or low-income populations.

B-II

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

In addition to operating the DOE facility in accordance with all applicable regulations and the hazardous waste storage permit issued by the host state, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a) (see Chapter 2, Section 2.2), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The guidance is based on laws, regulations, DOE Orders, and best management practices. The *Interim Guidance* discusses (1) DOE's anticipated waste acceptance criteria; (2) procedures DOE would use to receive, store, and monitor the mercury; and (3) spill and emergency response procedures. Thus, implementation of the *Interim Guidance* would ensure that elemental mercury would be stored in such a manner as to protect the environment, workers, and the general public. If the storage facility(ies) operates beyond 40 years, additional NEPA documentation would be prepared as appropriate. A copy of the *Interim Guidance* can be obtained by sending a request to Ms. Tish O'Connor, Guidance Document Manager, DOE Office of Environmental Management, Office of Compliance EM-41, 1000 Independence Avenue SW, Washington, DC 20585 or by visiting DOE's *Mercury Storage EIS* website at <http://www.mercurystorageeis.com/library.htm>.

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Campaign B (cont'd)

Persons also submitting Campaign B

Frank Aaron
Vernon Berger
Stephanie Blevins
Juanita Butler
Julia Crow
G.L. Daniel
Francisco Dominguez
Angie Drake
Carmen Druke
Angelica Garcia
Everett Goar
Carrie L. Gosslee
Stacy Guidry
Karen Hadden
Hall Hamond
James Hanon
Thomas Heikkala
Bobby Hendley
Benjamin Holland
Julia Holland
Nancy Hynes

Jan Justice
Lou Ann Ligon
Nakisha Nathan
Hobert Richardson
Molly Rooke
Sonia Santana
Mark Schram
Kelly Sennhauser
Linda Siefert
Brenda Smith
Tom Smitty Smith
Edgar Stahl
Philip Virgil
Liz Wally
Cynthia Weehler
Georgiana Wells
Thomas Windberg
Shelley Wright
Elizabeth Young

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Campaign B (cont'd)

Commentors that submitted Campaign B, in part or in whole, with additional comments

Drake, Angie

.....

40 years puts this smack in the laps of my children when they are adults. We need to find a permanent fix – not a bandaid.

Figure out a better solution, one that is long term, that doesn't put the problems at the feet of my children.

BI-1

Schram, Mark

.....

This is important business. The business of the common citizen as well as those with much larger corporate pockets (I disagree with the Supreme Court's ruling that a company can be considered an individual).

B2-1

BI-1

As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for such elemental mercury wastes. As described in Section 2.1, the Mercury Export Ban Act of 2008 (P.L. 110-414) does not specify how long the DOE mercury storage facility (or facilities) would need to be operated. For purposes of analysis, DOE assumes the operation of a mercury storage facility(ies) with a capacity of 10,000 metric tons (11,000 tons) over a 40-year period of analysis. These are estimates with a degree of uncertainty; therefore, it is possible that more or less than 10,000 metric tons (11,000 tons) of mercury could eventually require storage for a period longer or shorter than 40 years. Additional NEPA documentation would be required to evaluate expanding the facility(ies) to accept more than 10,000 metric tons (11,000 tons) of mercury or extending its operations beyond the 40-year period of analysis.

B2-1

Thank you for your comment. In preparing this *Final Mercury Storage EIS*, DOE gave equal consideration to all written and oral comments received during the comment period on the draft EIS from individual members of the public as well as from agencies and organizations.

Campaign C

Sarah Wilson
188 Bocana St.
San Francisco, CA 94110-5530

CitizenLetter

An urgent message from a concerned citizen.

October 23, 2009

Secretary Chu
Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Dear Secretary Chu,

I am writing to urge you to stop using our state as a dumping ground for the rest of the country and cancel plans to dispose of toxic mercury at the Hanford Nuclear Reservation.

Hanford is already one of the most polluted places on the planet. It holds 50 million gallons of high-level radioactive waste in leaking tanks. Over the past 50 years, 450 billion gallons of contaminated liquids were simply poured into the ground here.

Small wonder that farmers in the area regularly report the birth of three-legged chicks and two-headed calves. One can only imagine the damage Hanford is doing to the people who live or work nearby.

And now the Department of Energy has decided to make the problem worse. It has chosen Hanford as one of seven possible sites that will receive 10,000 metric tons of highly toxic mercury that the federal government will start accumulating when the Mercury Export Ban Act takes effect in 2013.

Perhaps you consider Hanford a place beyond hope. But Washington residents have had enough. We don't want the federal government's leftover mercury and I urge you to abandon your plan to bring it here. Please tell me how you intend to address this issue.

Sincerely,
Sarah Wilson

CitizenLetters are a service of CREDO:

1015 10th St. • Oakland, CA 94612 • 510.434.2700 • www.credowatch.org

CREDO

more than a network.
a movement.

C-1 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at Hanford. However, note that mercury would be placed in long-term storage within the proposed facility and not dumped or otherwise disposed of in or on the ground.

C-2 DOE acknowledges the commentor's statements and concerns regarding off-site impacts from Hanford operations. DOE performs environmental monitoring and surveillance of radiological and nonradiological constituents in air, liquid effluent emissions from Hanford facilities, and potentially affected environmental media on site and in offsite locations for analysis and comparison with regulatory standards. Media surveyed on a regular basis include ambient air, soils, sediments, surface water, drinking water, and groundwater. DOE also monitors vegetation, fish, and wildlife for contaminants from Hanford operations. Samples of food and farm products are also collected from locations near Hanford and analyzed on a recurring basis. The numbers, locations, and distribution of sampling locations and analysis results are detailed in publicly available documents, such as the annual Hanford environmental reports (accessible through <http://hanford-site.pnl.gov/envreport/>). DOE has no sampling or other objective, reliable data regarding reports of animal deformity attributable to Hanford operations.

Regardless, DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

C-1

C-2

Campaign C (cont'd)

Commentors that also submitted Campaign C:

Keith Bacon
Peter Bahls
Helen Bassler
Toni R. Burton
Marjorie Cogan
Ardella Culp
Bruce Dobson
Teresa J. Elisabeth
E. Gubelman
Cathy Hendrickson
Susan Holland
Keith T. Johnson
Fred Kellogg
Jane Klassen
Elizabeth R. Larson
A. Lowen
Scott Mauk
Melissa Mccullough
Doug Miller
Kent Morrison
Philip Myers
Janet Ross
Amanda Ruston
Andrea Sasse
Muriel Severns
Ansel Wald
Kathy Wilson
Sarah Wilson

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Comments from the Grand Junction, Colorado, Public Hearing (February 23, 2010)

1

U.S. DEPARTMENT OF ENERGY
DRAFT LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL
MERCURY
ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING
FEBRUARY 23, 2010
5:30 P.m.
TWO RIVERS CONVENTION CENTER
159 MAIN STREET
GRAND JUNCTION, COLORADO

Linda Robinson, Facilitator

PANEL MEMBER:
David Levenstein, U.S. Department of Energy



Nationwide Scheduling
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Facsimile: 1.973.355.3094
www.deponet.com

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Comments from the Grand Junction, Colorado, Public Hearing (February 23, 2010)

	February 23, 2010
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2	2
3	U.S. DEPARTMENT OF ENERGY
4	LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY
5	ENVIRONMENTAL IMPACT STATEMENT
6	
7	FORMAL COMMENT SESSION PAGE LINE
8	
9	(There were no public comments offered.)
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22	(WHEREUPON the within proceedings adjourned at
23	8:30 p.m. on Tuesday, February 23, 2010.)
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Comments from the Grand Junction, Colorado, Public Hearing (February 23, 2010)

Public Hearing February 23, 2010

3

REPORTER'S CERTIFICATE

1 I, MARTHA LOOMIS, CSR NO. 7982, a Certified
2 Shorthand Reporter in and for the State of Colorado, do
3 hereby certify:
4 That the foregoing proceedings were taken by me
5 in shorthand at the time and place herein named and were
6 thereafter transcribed into typewriting under my
7 direction, said transcript being a true and correct
8 transcription of my shorthand notes so far as my ability
9 to hear and understand.
10 I further certify that I have no interest in the
11 outcome of this action.
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Marttha Loomis
MARTHA LOOMIS
CSR NO. 7982

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Comments from the Hawthorne, Nevada, Public Hearing (February 23, 2010)

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U.S. DEPARTMENT OF ENERGY

DRAFT LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

FEBRUARY 23, 2010
5:30 P.M.

EL CAPITAN RESORT
540 F STREET
HAWTHORNE, NEVADA

Robin Brandin, Facilitator

PANEL MEMBER:
William Levitan, U.S. Department of Energy

Atkinson-Baker, Inc.
Court Reporters
(800) 288-3376
www.abpc.com
REPORTED BY: CARRIE HEWERDINE, RDR, NV OCR NO. 820
FILE NO.: A3086C1

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Comments from the Hawthorne, Nevada, Public Hearing (February 23, 2010)

U.S. DEPARTMENT OF ENERGY	PAGE	LINE
LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY ENVIRONMENTAL IMPACT STATEMENT		
FORMAL COMMENT SESSION		
(There were no public comments offered)		

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Comments from the Hawthorne, Nevada, Public Hearing (February 23, 2010)

1 HAWTHORNE, NEVADA, TUESDAY, FEBRUARY 23, 2010, 6:29 P.M.
2 -o-o-
3
4 MS. BRANDIN: Does anybody want to make a
5 comment?
6 You guys are easy. Okay.
7 MR. LEVITAN: We have to sit here for two
8 hours, by the way, because we published that we'd be here
9 until 8:30. So we are here if you do have comments.
10
11 (There were no public comments to be placed on the record)
12
13
14 (Proceedings went off the record from
15 6:26 P.M. until 8:30 P.M.)
16 - - -
17 (There being no public comments, the proceedings officially
18 concluded at 8:30 p.m.)
19
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Comments from the Hawthorne, Nevada, Public Hearing (February 23, 2010)

REPORTER'S CERTIFICATE

I, CARRIE HEWERDINE, RDR, Nevada CCR No. 820,
Certified Shorthand Reporter, certify;


That the foregoing proceedings were taken before
me at the time and place therein set forth, at which time
the Formal Public Comment portion was stenographically
recorded by me and were thereafter transcribed;

That the foregoing is a true and correct
transcript of my shorthand notes so taken.

I further certify that I am not a relative or
employee of any attorney of the parties, nor financially
interested in the action.

I declare under penalty of perjury under the laws
of California that the foregoing is true and correct.

Dated this 23rd day of February, 2010.


CARRIE HEWERDINE, RDR
Nevada CCR No. 820

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

1

U.S. DEPARTMENT OF ENERGY

* * * * *

DRAFT LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL
MERCURY
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

Monday, February 25, 2010
5:30 p.m.

Shilo Inn, O'Callahan's Convention Center,
780 Lindsey Boulevard, Idaho Falls, Idaho

Linda Robinson, Facilitator

PANEL MEMBER:
William Levitan, U.S. Department of Energy

Reported by: DiAnn Erdman Prock
CSR SRL 963, CCR, RPR

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing February 25, 2010

F O R M A L C O M M E N T S E S S I O N		I N D E X	
NAME	PAGE	LINE	
WILLIE PREACHER	4	3	2
ERICK NEHER	6	17	

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing February 25, 2010

3

(WHEREUPON, the formal comment session proceeded at 6:52 p.m. as follows:)

* * * * *

MS. ROBINSON: Okay. This is now the beginning of your opportunity to present formal comments on this draft environmental impact statement.

The court reporter is DiAnn Prock, and her objective is to produce a complete and an accurate record of comments, and she'll put them in a transcript which will appear later on in the client EIS.

It will help if we keep it quiet, but you all are already very good at that tonight.

I'll call the speakers in the order of which they registered. I have three.

MR. LEVITAN: I would like -- I don't know if Mr. Preacher is first on your list -- I don't know, Willie, if you were going to make a comment, but if you are, I'd appreciate, Linda, if you would allow him to go first --

MS. ROBINSON: Please, Sir, do come forward.

MR. LEVITAN: -- as he has a meeting at 7:30.

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing February 25, 2010

4

1 MS. ROBINSON: He's going on the record.
 2
 3 WHEREUPON,
 4 WILLIE PREACHER was called forward to
 5 present public comments and the following
 6 proceedings were had:
 7 * * * * *
 8
 9 MR. PREACHER: My name is Willie
 10 Preacher, and I'm a member of the Shoshone Bannock
 11 Tribes, and with the ROD that's going to be signed,
 12 the tribe is extremely grateful that Texas is going
 13 to be taking this elementary mercury.
 14 There's been a lot of issues that have
 15 been going on with the INL, which is out here,
 16 particularly transportation and the safety aspects
 17 of our aboriginal treaty right areas that we have
 18 had at one time and we still use and occupy the
 19 area.
 20 One of the main issues that we wanted to
 21 discuss and convey to DOE when they were here last
 22 is to find an alternate site instead of the INL.
 23 And I know that hasn't been quite
 24 decided yet, but let's hope they go with the ROD and
 25 their decision and take it to Texas, and the tribes

301-1

301-1

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing

February 25, 2010

5

1 are okay with that here.

2 The other question I think I had was in

3 Texas, are there other tribes in Texas that may be

4 affected by this site?

5 MR. LEVITAN: There are not, Willie.

6 There are no tribes in that area.

7 MR. PREACHER: And with that, that's all

8 I needed to say.

9 MS. ROBINSON: Thank you, sir. And

10 since I didn't have your name here, would you leave

11 your spelling with one of the ladies at the desk

12 because we want to get it spelled right.

13 MR. LEVITAN: Thanks.

14 MS. ROBINSON: Thank you so much.

15 We invite you to give your full name and

16 your organization, if you are representing one, and

17 if there needs to be a spelling for the court

18 reporter to get it right, you can do that, too.

19 The people who have signed up, I think

20 you have your spellings. Okay? At least of your

21 names.

22 Once everyone who has signed up to speak

23 has spoken, I will then open the floor to anybody

24 who is inspired to speak, so you will have an

25 opportunity. Or even if someone already spoke, you

301-2

301-2

As indicated by Mr. Levitan, there are no tribes in the WCS area. There are three federally recognized tribes in Texas: the Alabama-Coushatta Tribe of Texas, Kickapoo Traditional Tribe of Texas, and Ysleta del Sur Pueblo. None of these tribes are located in the vicinity of WCS. While there are numerous tribes located in New Mexico, none are located within the area of WCS. A map of American Indian reservations in the continental United States may be viewed at <http://www.nps.gov/history/nagpra/documents/RESERV.PDF>.



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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing February 25, 2010

6

1 can come back.

2 If you have an extremely long comment,
3 like pages and pages, I would ask that you summarize
4 it here, and then you're invited to turn it in in
5 its entirety, and the entire thing will be included
6 as your comments, and you will turn that in either
7 to me or at the front desk, but I guess people might
8 not want to hear an hour or so.

9 Okay. Let us begin. The first person,
10 and I'm going to name the next one so that you'll
11 know that you're going to be the next one up if
12 you'll get ready.

13 Erick Neher first followed by Bruce
14 LaRue.

15 Erick?

16
17 WHEREUPON,

18 ERICK NEHER, was called forward to present
19 public comments, and the following proceedings were
20 had:

21 * * * * *

22 MR. NEHER: Sure. My name is Erick

23 Neher. I'm representing the State of Idaho and the
24 Idaho Department of Environmental Quality.
25

Response side of this page intentionally left blank.



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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing February 25, 2010

7

1 MS. ROBINSON: I'm sorry. Can you all
 2 hear? I can barely.
 3 MR. NEHER: Is this on?
 4 MS. ROBINSON: It was on.
 5 MR. NEHER: I'll speak up a little
 6 louder.
 7 My name is Erick Neher. I represent the
 8 Idaho Department of Environmental Quality. I have
 9 just a few brief comments, and I want to submit some
 10 formal written comments from our director's
 11 office.
 12 To begin, DEQ and the State of Idaho are
 13 appreciative of the thoroughness of the draft
 14 Mercury EIS and are supportive of the preferred
 15 alternative proposed by IDP for storage of the
 16 mercury at the WCS facility in Texas.
 17 Furthermore, DEQ is appreciative of the
 18 significant progress that has been made at clean-up
 19 of the legacy waste at the INL, and believes that
 20 storage of mercury at the INL would be contrary to
 21 the vital progress and to the INL's primary energy
 22 mission.
 23 Finally, DEQ believes that the Texas WCS
 24 facility, a commercial operation specifically
 25 designed to receive and store hazardous waste, is the

302-1

302-1

302-2

302-2

302-1
cont'd

DOE appreciates the Idaho Department of Environmental Quality's comment on the thoroughness of the *Draft Mercury Storage EIS* and acknowledges its support for the identification of WCS as the Preferred Alternative. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

DOE acknowledges the Idaho Department of Environmental Quality's appreciation of the progress that has been made with regard cleaning up legacy waste at INL. As stated in Chapter 4, Section 4.6.8, of this *Mercury Storage EIS*, DOE continues to manage several ongoing programs and projects at INL in support of sitewide remediation. The proposed action and the existing cleanup missions are independent programs; thus, actions related to one would not impact the other. Cleanup activities at INL continue to be high priority for DOE. Neither construction nor operation of the proposed mercury storage facility(ies) is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing

February 25, 2010

8

1 best alternative as the facility is already well
2 characterized and proven suitable for long-term
3 storage, and is permitted already for receipt of and
4 waste management activities.

5 With that, I'd just like to provide my
6 written comments.

7 Over here?

8 MS. ROBINSON: Thank you, sir. I'll
9 take it.

10 MR. NEHER: Okay. Thank you.

11 MS. ROBINSON: Thank you very much.

12 MR. LaRUE: I thought that was the
13 sign-in sheet. I don't have any comment.

14 MS. ROBINSON: Okay. Great.

15 Willie Preacher we already had. So --
16 that was Willie, correct?

17 MR. LEVITAN: Right. Absolutely.

18 MS. ROBINSON: And that's all the people
19 who have signed up to speak tonight.

20 Would anybody else now like to make a
21 comment?

22 (No audible response.)

23 MS. ROBINSON: Okay. Well, then, that
24 is the case.

25 I thank you all for coming to express

302-1
cont'd

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing February 25, 2010

9

1 your opinions and to learn. Thank you all for
 2 coming.

3 Do we have a speaker?
 4 (No audible response.)

5 MS. ROBINSON: I'll let Mr. Levitan make
 6 closing remarks.

7

8 (Whereupon, the public hearing concluded
 9 at 8:30 p.m.)

10

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Comments from the Idaho Falls, Idaho, Public Hearing (February 25, 2010)

Public Hearing February 25, 2010

10

REPORTER'S CERTIFICATE

STATE OF IDAHO)
) ss.
 COUNTY OF BONNEVILLE)

I, DiAnn Erdman Prock, CSR, CCR, RPR, a duly commissioned Notary Public in and for the State of Idaho, do hereby certify:

That I took down in Stenotype all of the proceedings had in the before-entitled matter at the time and place indicated, and that thereafter said Stenotype notes were transcribed into typewriting at and under my direction and supervision, and the foregoing transcript constitutes a full, true and accurate record of the proceedings had.

I further certify that I have no interest in the event of the action.

WITNESS my hand and seal this 3rd day of March, 2010.

DiAnn Erdman Prock

 DiAnn Erdman Prock
 Idaho CSR SRL 963, CCR, RPR
 Notary Public in and for
 the State of Idaho

My Commission Expires: 11-14-2013

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Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

1

U.S. DEPARTMENT OF ENERGY

DRAFT LONG-TERM MANAGEMENT AND STORAGE OF
ELEMENTAL MERCURY
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

MARCH 2, 2010
5:30 p.m.

COURTYARD MARRIOTT
500 EAST 105th STREET
KANSAS CITY, MO 64131

Linda Robinson, Facilitator
PANEL MEMBER:
David Levenstein, U.S. Department of Energy

REPORTED BY: Sheila R. Vogt

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Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing	March 2, 2010
1	2
2	
3	U.S. DEPARTMENT OF ENERGY
4	LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY
5	ENVIRONMENTAL IMPACT STATEMENT
6	FORMAL COMMENT SESSION
7	CATHY JOLLY
8	JOHN SHARP
9	MAURICE SMITH
10	MAURICE COPELAND
11	DENNIS MURPHEY
12	ARNOLD MCWANN
13	SHARON DUNCAN
14	TERRENCE NASH
15	BRIAN DREIER
16	LAURIE HINES
17	BILL BRANT
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Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

3

MS. ROBINSON: Now, it is your opportunity to begin to give comments on the Draft Environmental Impact Statement. The court reporter is Sheila Vogt, over here (indicating). She's starting to run her fingers. Her objective is produce a complete and accurate transcript of your comments. Know that you do not get responses at this point. This is not a Q&A, but you will be answered in the final Environmental Impact Statement. Everybody's questions -- comments will be responded to. I'm going to call the speakers in the order that they registered. We're going to start with the representatives of the city council, then I will name each speaker who signed up. I'm also going to name the subsequent speakers in advance so you'll know that it's time for you to be coming, so you can get ready to get up.

When it's your turn, you may give your full name and any organization that you represent. And if you think your name or your organization might be a challenge in spelling to the court reporter, we invite you to spell it. She wants to get it right, and I've given her the authority to interrupt if she needs to, if she can't hear, so please speak up. I think we're in a small enough room that she'll pretty well hear.

Response side of this page intentionally left blank.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

4
1 Once all the people who have registered to
2 speak have spoken, I will open it up to anybody else
3 in the room who is inspired to also speak. If you
4 have a written comment of what you're going to say
5 tonight, we would welcome you turning it in, either to
6 the court reporter or the desk; and if you have
7 extremely long comments, I ask that you summarize them
8 here and turn them in in their many-page entirety for
9 the record.
10 The many-paged one will be the one that
11 counts on the record. Both of them will count, but
12 that's the one that will be responded to in full. All
13 oral and written comments will be considered equally.
14 No one is given any more weight than the other. All
15 right. Let us begin.
16 Let's start with Cathy Jolly from the city
17 council. You may -- actually, come right here,
18 please. Do you mind?
19 MS. JOLLY: Right here?
20 MS. ROBINSON: Right where the microphone
21 is.
22 MS. JOLLY: Sure.
23 MS. ROBINSON: Thank you.
24 MS. JOLLY: Good evening, I'm Cathy Jolly,
25 C-A-T-H-Y, J-O-L-L-Y, City Councilwoman, 6th District

Response side of this page intentionally left blank.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

5

1 at large. On behalf of the many residents of Kansas
2 City who live in proximity to Bannister Road Kansas
3 City Plant, I appreciate the opportunity to provide
4 input to the DOE regarding the Draft Environmental
5 Impact Statement for its proposed long-term storage
6 facility for mercury.

7 In July of 2009, the mayor and the City
8 Council of Kansas City, Missouri, unanimously
9 expressed our strong opposition regarding the DOE's
10 consideration of the Bannister Road Kansas City Plant
11 as the possible long-term storage site for mercury.

12 The facility's location near residential
13 neighborhoods and the city's plan for economic
14 redevelopment at the site of the DOE's move of its
15 existing operations to another location were two of
16 the many reasons why the Bannister Road Plant was a
17 poor site for consideration by the DOE. I am pleased
18 that the recently published DEIS identified a facility
19 other than the Bannister Road Kansas City Plant as a
20 preferred alternative for the mercury storage
21 facility.

22 On February 11, 2010, the mayor and the
23 City Council of Kansas City, Missouri, unanimously
24 adopted Resolution No. 100107 in support of the DOE's
25 preferred alternative. A copy of that resolution has

401-1

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at KCP.

401-2

DOE acknowledges the commentor's statements about site selection. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

401-2

401-3

DOE acknowledges the commentor's support for the identification of WCS as the Preferred Alternative. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

401-3

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

6

1 previously been provided as part of the official
 2 record of the site selection of its mercury storage
 3 facility.

4 As noted in the DEIS, there were several
 5 factors that made the preferred alternative location
 6 the Waste Control Specialists Facility near Andrews,
 7 Texas, the more appropriate site for long-term mercury
 8 storage rather than the Bannister Road facility here
 9 in Kansas City. Those include the capability of
 10 mercury storage with its current operation as a
 11 commercial hazardous waste management facility, a
 12 remote location with no residential population nearby,
 13 no surface water bodies nearby, and environmental
 14 impacts that are otherwise similar to the other
 15 candidates' sites.

16 The DEIS also noted that the Bannister Road
 17 Kansas City Plant was one of two candidate sites under
 18 consideration by the DOE where minority and/or low
 19 income populations are present within a two-mile
 20 radius and transportation accidents at or near the
 21 facility could disproportionately impact low income
 22 and/or minority individuals.

23 We had previously called this to the DOE's
 24 attention, and we believe that this factor alone makes
 25 the Bannister Road Kansas City Plant an inappropriate

401-4

401-4

DOE acknowledges the commentor's observations regarding the presence of minority and low-income populations in the vicinity of KCP. Chapter 4, Section 4.7.12, of this *Mercury Storage EIS* presents the analysis of potential environmental justice impacts at KCP, including the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations within the region of influence at KCP in the event of a transportation accident. As discussed in Section 4.7.9.3, transportation accidents have been predicted to pose a negligible-to-low human health risk.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

7

1 location for consideration of a mercury storage
2 facility.

3 In order to provide peace of mind to the
4 residents of the neighborhoods nearby to Bannister
5 Road who are concerned regarding the uncertainty of
6 these plans, I urge you -- vehemently urge you -- to
7 finalize the Environmental Impact Statement and issue
8 the formal record of decision very, very soon, as soon
9 as possible. And we hope that you affirm your
10 preferred alternative of the mercury storage facility
11 as identified in the Draft Environmental Impact
12 Statement. Thank you.

13 MS. ROBINSON: Thank you, Ms. Jolly.
14 Now we will have John Sharp also of the
15 city council.

16 MR. SHARP: Thank you very much. I'm
17 John Sharp. I'm the city councilman from the 6th
18 District. My district includes this site, and I live
19 very close to it, as does Councilwoman Jolly.

20 I would like to enter four documents into
21 the record, which you should have already received,
22 but I think it would be appropriate to provide them
23 here today. One is a letter to Mr. Levenstein from
24 Councilwoman Jolly and myself and Mayor Funkhouser
25 expressing our support for your preferred alternative

401-4
cont'd

402-1

DOE acknowledges the commenter's support for the identification of WCS as the Preferred Alternative and opposition to the long-term management and storage of elemental mercury at KCP. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

402-1

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

8

1 and, again, expressing our opposition to why this is
 2 an inappropriate site.

3 We do mention the city council resolution
 4 that was adopted unanimously last July opposing this
 5 site. We have also attached a copy of the resolution
 6 passed February 11 indicating our support for the
 7 preferred alternative and, again, urging that that be
 8 finalized. We also have included in this packet a
 9 letter to Mr. Levenstein from the city manager and
 10 from our chief environmental officer essentially
 11 saying many of the same things, and a letter from our
 12 environmental management commission. So I would like
 13 to enter those for the record. Who do I give them to?

14 MS. ROBINSON: You can give them to me.
 15 I'll get them to the right place. Thank you,
 16 Mr. Sharp.

17 MR. SHARP: Let me make just a few
 18 additional comments, if I could. We've heard about
 19 the flood gates, and those gates actually are not
 20 lowered. They're moved. Because they aren't up there
 21 waiting to be dropped, they have to be pulled across
 22 the entrances to seal the area. That is not a quick
 23 process. And this an area that if we ever have a
 24 microburst, you could have very quick flooding.

25 I know you could probably automate that

402-1
 cont'd

402-2

402-2

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at KCP due to the site's flood protection system, floodplain location, and proximity to nearby residents. Chapter 3, Section 3.6.1, of this *Mercury Storage EIS* describes the flooding potential of the Blue River and Indian Creek and also discusses the site's flood protection system. Chapter 4, Section 4.7.3.1, of this EIS specifically describes the potential impacts on surface water from siting a mercury storage facility at KCP, including flood protection considerations such as the need to manually close floodgates. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

9

1 system, although it would be at a substantial cost.
2 But to locate a hazardous material or toxic metal
3 waste storage facility in a flood plain, in a
4 residential area, in an urban area, doesn't make a
5 whole lot of sense to any of us here in Kansas City.
6 It just does have risks to the people living nearby.

7 Now, I understand that the study says the
8 risks are low to negligible, and, of course, that's
9 easy to say when you aren't the one living by it. But
10 the fact of the matter is this is in a residential
11 area. There is a possibility that there could be
12 traffic accidents when transporting this material to
13 this facility. Those traffic accidents could take
14 place near a residential area. They would have a
15 possibility of disproportionately affecting low and
16 minority income populations.

17 And, you know, this country and units of
18 government in this country have a pretty checkered
19 past as far as locating facilities that are
20 potentially hazardous in low income and minority
21 populated areas, and that's the reason we have tried
22 to get away from that and have required environmental
23 justice to be considered when locating these sites.

24 I would certainly hope that we would do it
25 right as the law requires and not put a site like this

402-3

DOE acknowledges the possibility that traffic accidents could occur when transporting mercury to KCP. These accidents could take place close to residential areas. This statement is also true of any other hazardous materials that are transported along the roadways near KCP. As with all hazardous materials, the question for mercury is whether it can be transported responsibly so that it poses a low or negligible risk to people living along the transportation routes. The risk assessment presented in this *Mercury Storage EIS* is a good-faith effort to use what is known about the physics and chemistry of mercury, its toxicity, and the way it is transported to obtain a conservative estimate of that risk. Therefore, DOE stands by the conclusion that the risk to individual members of the public from transportation accidents at KCP would be negligible to low. This assertion is specifically supported by the analysis presented in Chapter 4, Section 4.7.9.3, of this EIS.

402-4

DOE is committed to fully considering all environmental justice concerns in its NEPA analyses and decisionmaking processes. The methodology used to develop the "Environmental Justice" sections of this *Mercury Storage EIS* is described in Appendix B, Section B.11. The "Environmental Justice" sections in Chapter 3 of this EIS describe the existing distribution of minority and low-income populations within 16 kilometers (10 miles) and 3.2 kilometers (2 miles) of the candidate sites. The "Environmental Justice" sections in Chapter 4 include an analysis of potential environmental justice impacts. Specifically with regard to KCP, Chapter 4, Section 4.7.12, presents the analysis of potential environmental justice impacts, including the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations. As stated in the section, no disproportionately high and adverse effects on minority or low-income populations are expected.

402-2
cont'd

402-3

402-4

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

10

1 in an area where it could have this kind of impact on
2 working-class folks and minority individuals.

3 The Andrews site is the type of site that I
4 would envision for a facility like this. It is in a
5 very sparsely-populated area. It's not in a flood
6 plain. It does have all the facilities you need to
7 transport the material to the site. And from what I
8 understand, that waste management facility is equipped
9 and ready to handle things like this.

10 Just as an aside, my son has been playing
11 baseball out in Yuma, Arizona, and his season is over.
12 He played in an Arizona winter league and was driving
13 to Dallas, and I asked him this last weekend, I said,
14 "Could you go by Andrews, Texas, and just take a look
15 at what this site is like?" I don't think he wanted
16 to do it particularly anyway, but he said he couldn't
17 find it on the map.

18 Now, I don't know how hard he looked, but
19 that's the kind of facility where this should be. It
20 should be in a sparsely-populated area where in case
21 you would have some type of accident it wouldn't
22 impact people's health. It wouldn't impact their
23 lives.

24 For us to locate a facility like this at
25 the Bannister site, it would only take a small portion

402-4
cont'd

402-5

402-5 DOE acknowledges the commentor's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury.

402-6 DOE acknowledges the commentor's concerns regarding the potential impact that siting a mercury storage facility at KCP could have on the redevelopment of the Bannister Federal Complex. The land use analysis presented in Chapter 4, Section 4.7.1, of this *Mercury Storage EIS* recognizes that, although no applicable land use plans, policies, or controls have been identified that would specifically restrict storage of elemental mercury, such storage might not be considered compatible with proposed redevelopment of the site, adjacent residential zoning, or the proximity of sensitive populations within 0.8 kilometers (0.5 miles) of the site. In addition, DOE performed a qualitative assessment of the impact that locating a mercury storage facility could have on property values, which is presented in Appendix B, Section B.10.2, of this EIS. As discussed in the analysis, some case studies have shown that the stigma created from such sites has caused property values closer to the site to decrease, some have shown an increase in value due to the potential for well-paying jobs, while many others have shown no impact. Regardless, the primary factor in determining the impact on property values is the perceived risk to human health imposed on residents of a property in close proximity to that facility. As presented in the "Occupational and Public Health and Safety" sections of Chapter 4, operation of a mercury storage facility would result in little risk of environmental contamination due to the design and safety parameters put in place. Similarly, the human health risk to the offsite population would be negligible to low.

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

402-5
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402-6

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

11

1 of that site, and yet if you had a hazardous waste
 2 disposal facility there or toxic metal storage
 3 facility there, it would cripple any of our efforts to
 4 redevelop the rest of that site because no one else is
 5 going to want to locate near a facility like that.

6 So we have a 300-and-something acre site
 7 and only seven to 10 acres of it being used, and the
 8 rest would be just sitting there blighting our area
 9 and hurting our efforts to redevelop the area and
 10 stimulate our economy. So we do hope that you
 11 finalize this decision as soon as possible in the fall
 12 so the people who live out here and the people who are
 13 interested in economic development out here will have
 14 this cloud lifted from over our heads. Thank you very
 15 much.

16 MS. ROBINSON: Thank you, Mr. Sharp.

17 Next will be Maurice Smith followed by
 18 Maurice Copeland.

19 MR. SMITH: My name is Maurice Smith,
 20 M-A-U-R-I-C-E, last name S-M-I-T-H. I live in the
 21 area, this district, and I would like to, first of
 22 all, second the comments that both of our council
 23 people have made. Because of the unusual
 24 circumstances of my life, I was born and raised --
 25 actually moved as a boy out to my home, which is just

402-6
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Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

12

1 east of that facility, and I actually watched the
2 Pratt and Whitney plant being built in 1942. During
3 World War II it was called the Pratt and Whitney
4 Plant. They made airplane engines there.

5 I can tell you, because of my family, my
6 parents lived there many years, we actually observed
7 and I saw -- even though I was not working at the
8 plant myself at the time -- we observed the flood that
9 permeated the area -- that inundated that area.

10 I must tell you that because of the fact
11 that there is a railroad track that goes immediately
12 to the east of the facility, they are not able to
13 build a flood wall around that. And I can remember
14 standing looking down on that hill at the flood, and
15 the flood covered the entire valley.

16 And so not only would the -- would it be
17 necessary to add automatic closers to the gates that
18 are there, but I can tell you -- any hydrologist will
19 tell you that you would have to extend the current
20 flood wall completely around the facility. And it's
21 just along Bannister Road now essentially. It's more
22 like a facade.

23 Having said that, then, I can tell you that
24 I also have been studying your comments and I noticed
25 that the waste control specialist site in Andrews,

403-1

403-1

DOE acknowledges the commentor's observations regarding historical flooding at KCP, information on flood protection considerations, and suggestion that the flood wall be extended and that closure of existing flood gates be automated. Please see DOE's response to Comment No. 402-2. Further, as stated in Chapter 3, Section 3.6.3.1, of this EIS, DOE believes that the existing flood protection system and associated flood wall at KCP are adequate to protect the major facilities at KCP from the 500-year flood, including the Main Manufacturing Building location being considered for mercury storage, although outlying areas may be impacted by flooding. Also, as adequate warning of potential flooding conditions is expected from the National Weather Service, DOE believes that there would be adequate time to manually implement closure of the flood gates and take other necessary measures, which would be part of the integrated contingency plan implemented for the mercury storage facility. Regardless, in accordance with DOE Order 420.1B and as further described in Chapter 4, Section 4.7.3.1, of this *Mercury Storage EIS*, use of the KCP Main Manufacturing Building for mercury storage would require that the structure and flood protection system be evaluated and further upgraded, as necessary.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

13

1 Texas, is something like five times the site's area.
 2 It's about 1,300 acres instead of 300 -- four times.
 3 And I must concur that common prudence suggests the
 4 old saying, "If something can go wrong, it will."
 5 And being an engineer myself, I can tell
 6 you, you cannot and will never engineer perfection.
 7 And so any environmental impact statement that adopts
 8 as a premise the assumption or hope that one could so
 9 cleverly design and engineer protections around that
 10 facility to prevent all of these risks is a pipe
 11 dream. Thank you.

12 MS. ROBINSON: Thank you, Mr. Smith.
 13 Now we will have Maurice Copeland.
 14 By the way, since those of you have signed
 15 in, we have your spellings. The only ones who really
 16 need to spell their names are the people I call on
 17 after the signups, but if the organization you belong
 18 to might not be understood, you can spell that. So
 19 Maurice Copeland will be followed by Dennis Murphey.
 20 Mr. Copeland.

21 MR. COPELAND: Maurice Copeland, 32-year
 22 employee of Honeywell. I want you to take into
 23 consideration the problems that DOE is having with the
 24 sick workers and the contamination at the plant as it
 25 is already. And the history so far, for my last 10

403-2

403-2

DOE acknowledges the commentor's statements regarding engineering. DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414). Chapter 2, Section 2.2.1, of this *Mercury Storage EIS* describes the design and construction of a new mercury storage facility. DOE recognizes the potential for accidents to occur and thoroughly evaluated the frequencies, consequences, and risks of potential accidents in the "Facility Accidents" sections of Chapter 4 and Appendix D of this EIS.

404-1

404-1

DOE acknowledges the commentor's concerns regarding worker health at KCP. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. Also, as summarized in Chapter 4, Section 4.11.1, impacts on occupational and public health and safety from constructing and operating a mercury storage facility were projected to be negligible; therefore, these resource areas were not considered further in the context of cumulative impacts at KCP.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

14

1 years, is DOE is not living up to its obligations to
 2 the sick workers.

3 And if we're going to store this mercury
 4 there, it really doesn't matter to me. I don't care
 5 what you do at the plant. What you do is live up to
 6 the obligations that you have to the workers that work
 7 in the industry, and you're not doing that. So what
 8 makes us think that everything is going to be good
 9 with the mercury at the plant?

10 We already have mercury at the plant --
 11 have had mercury at the plant for years. We used to
 12 roll mercury up and down the aisles at the plant in
 13 the '60s and the '70s. It wasn't accountable -- taken
 14 into account in any manner out there, for say, the
 15 loss of the mercury, the accountability of it.

16 How good are we going to be with that
 17 considering the past with the storage of the mercury
 18 at the plant? How good are we going to be with that
 19 storage of other elements at the plant, the beryllium
 20 that's freely stored and was stacked on any racks with
 21 any other material, handled in any type of way.

22 The workers were not protected. We wore
 23 the same clothes. The engineering controls were
 24 nonexistent. The DOE set out that the -- if we had a
 25 meeting with DOE, Department of Labor in March of 2006

**404-1
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404-2

404-2

In the last 40 to 50 years, many scientific studies have provided data that have been used to improve mercury management practices that are protective of human health. As discussed in Chapter 5, Section 5.2.4, the Mercury Export Ban Act of 2008 (P.L. 110-414) stipulates that elemental mercury managed and stored at a DOE-designated facility (or facilities) is subject to the requirements of RCRA's hazardous waste provisions. DOE's *Interim Guidance* (DOE 2009a) details standards and procedures for a DOE mercury storage facility(ies) designed to protect the worker and public health and safety. All mercury in a DOE facility will be stored in fully enclosed containers. The Handling Area described in Appendix C, Section C.2.1, will be used when handling open containers of mercury, and only when personnel are properly outfitted with personal protective equipment.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

15

1 where the workers gave you information, gave us -- the
2 Department of Labor and DOE information that we were
3 not protected.

4 The engineering controls were not there.
5 We even had process engineers, the people responsible
6 for the protection of the people, that stated in that
7 meeting that's recorded that they did not -- because
8 it wasn't a priority for protection. The priority was
9 production. This was a cold war. Now, we won the cold
10 war.

11 I'm a Vietnam veteran. I've been in a lot
12 of wars. I've lost them all, and I won the cold war.
13 And I'm losing the cold war with DOE for not living up
14 to their responsibility to the sick workers with the
15 cancers. I notice the symptoms that come from
16 exposure to these chemicals.

17 I wonder how many exposures in the past
18 that we had that we're not living up to of people with
19 mercury poison that no doubt that could have been
20 happening because we rolled it up and down the aisle.
21 We played with it.

22 So I have a problem with even the site.
23 You've got three points here for the preferred site,
24 and we fail them all. You only have six points. Why
25 even consider this? Why even waste this money to do

404-3

404-3

DOE acknowledges the commentator's opposition to the long-term management and storage of elemental mercury at KCP. As described in Chapter 1, Section 1.5.1, KCP was identified as a potential site for the storage of elemental mercury based on a number of objective criteria used to identify the range of reasonable alternatives, as required under NEPA. The site was one of several evaluated following responses to the publication of a Request for Expressions of Interest in the *Federal Register*, as well as in *Federal Business Opportunities*, and an internal memorandum requesting that DOE site offices determine if they have a facility(ies) that could be used for mercury storage. In total, DOE initially screened 10 potential sites as to their adequacy for the storage of elemental mercury. KCP and 6 others met the evaluation criteria and were, therefore, evaluated further in this *Mercury Storage EIS*. A comparison of impacts among the candidate sites is provided in Chapter 2, Section 2.7. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

16

■ 404-3
cont'd

1 that? Write us off. But then, again, for Maurice
2 Copeland's benefit, bring the mercury in because it'll
3 show us how arrogant the DOE and the government is.

4 MS. ROBINSON: Thank you for your comments,
5 Mr. Copeland.

6 Next will be Dennis Murphey, followed by
7 Arnold McMann.

8 MR. MURPHEY: Thank you. My name is

9 Dennis Murphey. I'm the chief environmental officer
10 for the city of Kansas City, Missouri. I would like

11 to affirm the remarks of Councilwoman Jolly and

12 Councilman Sharp. I think they very clearly express

13 the City's position regarding the DOE's consideration

14 of the Kansas City plant for a mercury storage

15 facility. We clearly expressed our opposition during

16 the scoping process last summer, and we are clearly

17 expressing our support now for the preferred

18 alternative.

19 I think not only have you identified

20 through the environmental impact statement -- Draft

21 Environmental Impact Statement -- a compelling case

22 for why the preferred alternative site is superior to

23 the Kansas City plant, but I think you have also

24 identified that because the Kansas City plant is one

25 of two facilities that do represent a potential,

405-1

405-1

DOE acknowledges the commentator's opposition to the long-term management and storage of elemental mercury at KCP and support for the identification of WCS as the Preferred Alternative. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

405-2

405-2

DOE acknowledges the commentator's statement. DOE is committed to fully considering all environmental justice concerns in its NEPA analyses and decisionmaking processes.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

17

1 however small it may be, risk of disproportionate
2 impact to low income and minority populations is
3 sufficient basis in and of itself to disqualify Kansas
4 City from consideration. So I appreciate your
5 consideration of our comments.

6 MS. ROBINSON: Thank you, sir.

7 Arnold McMann and Sharon Duncan are the
8 last two speakers.

9 MR. MCMANN: I'm going to waive my
10 comments. They're extensive. I'll submit them in
11 writing. Councilman Sharp covered a lot of areas that
12 I wanted to. So I will help everybody to move along
13 and get home.

14 MS. ROBINSON: Thank you.

15 All right. The next one will be
16 Sharon Duncan.

17 MS. DUNCAN: This is my second opportunity
18 to speak before you. I came to the first one, and
19 there was a lot of information given to you at that
20 time about the problems with the contamination that
21 mercury would create. There are a lot of problems at
22 the site now.

23 I live -- 95th Street is the east-west
24 major artery. I live on 98th Terrace. I have been
25 there since '68, and I have seen many, many floods in

405-2
cont'd

406-1

406-1

DOE and the U.S. General Services Administration continue to investigate and remediate soil and groundwater contamination at several sites across the Bannister Federal Complex. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts. Chapter 4, Section 4.7.9, of this *Mercury Storage EIS* provides an evaluation of the risks of storing elemental mercury at KCP with respect to both normal operations and facility accidents, including transportation.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

18

1 that area.
 2 We have helped correct some of the flooding
 3 problems because we have a new bridge that the city
 4 and the county cooperated in building over Indian
 5 Creek, but nevertheless that won't stop the flooding
 6 because more development from Kansas comes right down
 7 Indian Creek, right through my area, right where it
 8 floods into Blue River at a junction, which is the
 9 same river that goes around your plant in Kansas City.
 10 And that's what's causing the flooding, it is because we
 11 have too much construction in other areas, and all the
 12 water runs off and comes through that area.

13 I agree with everything Mr. Sharp and
 14 Ms. Jolly said with the Kansas City resolution,
 15 that this is a disproportionate problem that you would
 16 cause for the people living there. Having lived there
 17 for many years, I don't intend to really leave it
 18 until I am practically drug out.

19 I really love the area and I don't like to
 20 see it ruined by having contamination placed in an
 21 area where we already know there are PCBs, beryllium.
 22 There's some other contaminants, things that have been
 23 removed from the soil. There's contamination in the
 24 water under a couple of buildings. This was all
 25 outlined in The Star, the "Kansas City Star's" articles.

406-2

406-2

DOE acknowledges the commentor's statements regarding flooding in and around KCP. Chapter 3, Section 3.6.1, of this *Mercury Storage EIS* describes the flooding potential of the Blue River and Indian Creek and also discusses the site's flood protection system. Section 3.6.1 also recognizes the contribution of urban development to frequent flooding of the Blue River and Indian Creek. Chapter 4, Section 4.7.3.1, of this EIS specifically describes the potential impacts on surface water from siting a mercury storage facility at KCP, including flood protection considerations such as the need to manually close floodgates.

406-3

406-3

DOE acknowledges the commentor's statements and opposition to the long-term management and storage of elemental mercury at KCP.

406-4

406-4

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at KCP. As addressed in the response to Comment No. 406-1, current investigation and remediation of soil and groundwater contamination at the Bannister Federal Complex would not be affected by construction or operation of the proposed mercury storage facility. As discussed in Chapter 2, Section 2.2, the storage facility would be RCRA regulated and permitted and would include numerous design features that would preclude the release of mercury to either the air or groundwater. Further, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The guidance is based on laws, regulations, DOE Orders, and best management practices.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

19

1 We've all known about it.

2 We have all been concerned -- that lived
3 there -- you know, what would happen if something
4 explodes in that building itself, what kind of
5 materials would get out in the air. So you're adding
6 more contamination problems for us to live with.

7 It is just the arteries that surround it,
8 east, west, north, south. That's too close to that
9 area of where trucks -- as Mr. Sharp had said,
10 accidents can happen, and they always do when you're
11 not looking for them.

12 I had a microburst two years ago at my
13 house that took out huge limbs off of a tree and took
14 the tree down in front of my house and the neighbor's.
15 You know, it just happens. You never know when you're
16 going to have that situation become out of control,
17 and you can't prevent with a flood wall. You can't
18 prevent with that flood wall because it cost 13
19 million to put it there and it really is a thing of
20 beauty.

21 That's about the only thing I can say about
22 it. It hides some of the things behind the wall that
23 you don't really have to look at now. You don't have
24 any feeling of peace of mind that it will prevent
25 anything from going inside that area.

406-5

406-5

The Bannister Federal Complex does not contain large quantities of explosive materials. It is not expected that an explosion elsewhere in the building could affect the mercury storage area. There would be no explosive materials within the mercury storage area itself.

406-6

406-6

DOE acknowledges the possibility that traffic accidents could occur when transporting mercury to KCP. These accidents could take place close to residential areas. This statement is also true of any other hazardous materials that are transported along the roadways near KCP. As with all hazardous materials, the question for mercury is whether it can be transported responsibly so that it poses a low or negligible risk to people living along the transportation routes. The risk assessment presented in this *Mercury Storage EIS* is a good-faith effort to use what is known about the physics and chemistry of mercury, its toxicity, and the way it is transported to obtain a conservative estimate of that risk. Therefore, DOE stands by the conclusion that the risk to individual members of the public from transportation accidents at KCP would be negligible to low. This assertion is specifically supported by the analysis presented in Chapter 4, Section 4.7.9.3, of this EIS.

406-7

Thank you for your comment. DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to participate.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

20

1 So if you think it's going to help, it
2 probably won't. There is nothing else we can say
3 except that people live there that really should be
4 looked at as their quality of life. And you shouldn't
5 have a situation where you have to say, "Please don't
6 put it in my area, but you could put it maybe one or
7 two or three other areas, even Andrews. It sounds
8 like is the best."

9 So the Government should be selecting it
10 without having to go around to all these sites and
11 make everyone come back and make comments two or three
12 times, because you already know in your mind, I think,
13 where it should be. So I hope it does. And we hope
14 that we have given you these comments respectfully
15 because we do respect the situation, but it's
16 important that you hear us. Thank you.

17 MS. ROBINSON: Thank you, Ms. Duncan. That
18 is all the people who have signed up, and I'll just
19 make an invitation to others --

20 Sir, at this time you do need to give your
21 name and maybe spell it.

22 MR. NASH: Okay. Terrence Nash,
23 T-E-R-R-E-N-C-E; Nash, N-A-S-H. I just want to thank
24 the Department of Energy for following procedures in
25 the process and considering alternatives. And I

406-7

407-1

407-1

Thank you for your comment. DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to participate.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

21

1 understand that you have to follow -- get a cross
2 section of sites to make your decision and with
3 thorough analysis, you'll come to the correct
4 conclusion. And that's all I would like to do is say
5 thank you for doing the process and the procedures.

6 MS. ROBINSON: Thank you, Mr. Nash.
7 Someone else over here?

8 MR. DREIER: My name is Brian Dreier. I
9 spell my last name D-R-E-I-E-R. I was struck by the
10 minimal impact statement considering the traffic
11 around town and pulled up a timely -- kind of a timely
12 article that was just released to the chief of police
13 yesterday.

14 As all of us local here know, the immediate
15 cross section roads are Bannister Road and 71 Highway.
16 Directly near that or directly surrounding that are
17 435, 71 Highway, pretty major arteries through our
18 community. Anyway, the chief of police just released
19 his list of the top traffic sites in the entire city.
20 As you know, Kansas City is a huge metropolis,
21 geographically.

22 If you don't mind, I would just like to
23 read down them real quick. No. 4, the most traffic
24 accidents was at 75th Street and 71 Highway. No. 6
25 was at Gregory and 71 Highway. No. 8 was at 435 and

**407-1
cont'd**

408-1

408-1 DOE acknowledges the possibility that traffic accidents could occur when transporting mercury to KCP. These accidents could take place close to residential areas. This statement is also true of any other hazardous materials that are transported along the roadways near KCP. As with all hazardous materials, the question for mercury is whether it can be transported responsibly so that it poses a low or negligible risk to people living along the transportation routes. The risk assessment presented in this *Mercury Storage EIS* is a good-faith effort to use what is known about the physics and chemistry of mercury, its toxicity, and the way it is transported to obtain a conservative estimate of that risk. Therefore, DOE stands by the conclusion that the risk to individual members of the public from transportation accidents at KCP would be negligible to low. This assertion is specifically supported by the analysis presented in Chapter 4, Section 4.7.9.3, of this EIS.

See also Chapter 3, Section 3.6.10.3, of this *Mercury Storage EIS* for a discussion of traffic patterns in the vicinity of the Bannister Federal Complex and Chapter 4, Section 4.7.11, for an assessment of the impacts on traffic near KCP.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

22

1 Holmes. No. 10 was at 55th Street and 71 Highway.
 2 No. 11 was at Bannister Road and 71 Highway. No. 2
 3 was I-435 and Wornall Road. No. 13 was at 71 Highway
 4 and Red Bridge Road. No. 14 -- I'm sorry, No. 15 was
 5 435 and 87th Street. No. 16 is at 470 and Blue Ridge
 6 Road. No. 17 was a little further down 71 Highway.
 7 No. 19 was 435 and 71 Highway, and No. 20 was I-435
 8 and Bannister Road.

9 So addressing the impact of traffic and the
 10 small impact it may have, I don't know -- I didn't add
 11 them up as I was going through these, but that's an
 12 awful lot of intersections that are immediately
 13 surrounding that site. So thank you again for your
 14 time and thank you, Councilman Sharp.

15 MS. ROBINSON: Thank you, Mr. Dreier.
 16 Is there anyone else who would like to
 17 provide a comment?

18 MS. HINES: My name is Laurie Hines,
 19 L-A-U-R-I-E, H-I-N-E-S. I am a current employee of
 20 the Bannister complex, and I noticed from page 12 of
 21 your summary here where they showed the proposed
 22 location for the building, it's actually a parking lot
 23 and directly to the east is a childcare center.

24 Some friends of mine just had a little boy
 25 back in September, September 11th as a matter of fact.

408-1
cont'd

409-1

DOE acknowledges the commenter's concerns regarding the potential impact that siting a mercury storage facility at KCP could have on children in a nearby childcare center. As described in the "Occupational and Public Health and Safety" sections in Chapter 4 and Appendix D of this *Mercury Storage EIS*, human health risks from normal operation of the facility and transportation would be negligible. Nevertheless, the land use analysis presented in Chapter 4, Section 4.7.1, of this EIS recognizes that, although no applicable land use plans, policies, or controls have been identified that would specifically restrict storage of elemental mercury, such storage might not be considered compatible with proposed redevelopment of the site, adjacent residential zoning, or the proximity of sensitive populations within 0.8 kilometers (0.5 miles) of the site. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

409-1

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

23

1 He stays at that childcare facility. So I'm concerned
2 about the proximity to the childcare center. Also,
3 they live in Santa Fe Hills, which is a little bit to
4 the northeast. I'm kind of concerned about that.
5 As everyone has mentioned here, the flood
6 plain is directly to the east. So with those
7 things -- all things considered there, I can't really
8 understand why this would be a very good location.
9 That's just addressing the building being on the
10 outside of the existing building.

11 Now, I was glad to hear that you were
12 planning to put that to the north in that parking lot
13 because as other people have said, there are plenty of
14 other mysterious chemicals in that facility -- in the
15 existing facility as it is.

16 It was built with really good concrete, but
17 they have a lot of problems in that building that
18 probably the general public doesn't know all about.
19 So I would be concerned with any additional toxic
20 chemicals being located in close proximity there. I
21 want to thank you for going through the process. I
22 appreciate it. Thanks for letting me comment.

23 MS. ROBINSON: Thank you, Ms. Hines.

24 Is there anyone else that would like to
25 make a comment? Sir?

409-1
cont'd

409-2

409-2

DOE acknowledges the commentor's statements. To clarify, the mercury storage facility would be housed within a 14,000-square-meter (150,000-square-foot) portion of the existing KCP Main Manufacturing Building, as illustrated in Chapter 2, Figures 2-18 and 2-19, of this *Mercury Storage EIS*. Chapter 3, Sections 3.6.2.2 and 3.6.3.2, of this EIS discuss soil and groundwater contamination at KCP originating from historical chemical usage and manufacturing processes, and Section 3.6.8 discusses current waste generation and waste management practices.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

24

1 MR. BRANT: I'll just make a short comment.
2 My name is Bill Brant, B-R-A-N-T, and I walk my dog in
3 the vicinity. After 9/11 the gates that access the
4 public roads on the north side of the plant -- when we
5 went to Code Orange or whatever the upper-level
6 concerns were, they would lock the gate. So it just
7 became -- the plant isolated different neighborhoods,
8 so you couldn't get from one side to the other.

9 Putting in this facility will just kind of
10 carry that over to where it's just a donut hole that
11 separates everybody in all the different sides. You
12 know, it may not be much there now, but putting more
13 stuff there without the benefit of employing very many
14 people is just going to be a donut hole that isolates
15 us.

16 MS. ROBINSON: Thank you, Mr. Brant.

17 Are there any other commentators in the
18 room?

19 I would like to say -- and I'm not the
20 official, but I do know this is a required meeting
21 under the National Governmental Policy Act. So
22 whoever said, "Why do you bother coming," they do want
23 to hear your comments and they also are required to
24 hear your comments. So this is a value to the
25 Department of Energy.

410-1

410-1 DOE acknowledges the commentator's statements.

Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing

March 2, 2010

25

1 If there are no other comments, then I want
2 to thank you for coming tonight and sharing your
3 thoughts. This will help the Department of Energy in
4 writing the final Environmental Impact Statement and
5 in reaching a decision.

6 Now final remarks from Mr. Levenstein.

7 MR. LEVENSTEIN: I want to just thank
8 everybody for coming out this evening. I appreciate
9 your comments and appreciate your taking the
10 opportunity to let us know what you think, and every
11 comment will be considered. As you know, the
12 preferred alternative is elsewhere, so hopefully you
13 will maintain your current state of happiness. Thank
14 you.

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Comments from the Kansas City, Missouri, Public Hearing (March 2, 2010)

Public Hearing March 2, 2010

26

CERTIFICATE OF REPORTER

1 STATE OF MISSOURI)
 2) ss.
 3 COUNTY OF HENRY)

4
 5
 6

7 I, Sheila R. Vogt, a Court Reporter and a
 8 Notary Public within and for the State of Missouri, do
 9 hereby certify that the comments whose testimony
 10 appears in the foregoing hearing was duly sworn by me;
 11 that the testimony of said individuals was taken by me
 12 to the best of my ability and thereafter reduced to
 13 typewriting under my direction; that I am neither
 14 counsel for, related to, nor employed by any of the
 15 parties to the action in which this hearing was taken,
 16 and further that I am not a relative or employee of
 17 any attorney or counsel employed by the parties
 18 thereto, nor financially or otherwise interested in
 19 the outcome of the action.

20
 21
 22
 23
 24
 25

Sheila R. Vogt
 Notary Public within and for
 The State of Missouri

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Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

1

U. S. DEPARTMENT OF ENERGY

DRAFT LONG-TERM MANAGEMENT AND STORAGE OF
ELEMENTAL MERCURY
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

MARCH 2, 2010
5:30 p.m.

Doubletree Hotel
1000 NE Multnomah Street
Portland, Oregon

Jim Parham, Facilitator
Panel Member:
William Levitan, U.S. Department of Energy

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Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement	March 2, 2010
1	2
2	U.S. DEPARTMENT OF ENERGY
3	LONG-TERM MANAGEMENT AND STORAGE
4	OF ELEMENTAL MERCURY
5	
6	FORMAL COMMENT SESSION PAGE
7	Dirk Dunning 3, 24
8	Maria Victoria Peeler 7
9	Gerry Pollet 15
10	Martin Majal 22
11	
12	* * *
13	
14	
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16	
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Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement
March 2, 2010

3

MR. DIRK DUNNING: First of all, good evening and welcome to the folks who are here. I'm Dirk Dunning. I'm a registered professional engineer with the State of Oregon, Department of Energy, which is separate from the Federal Department of Energy.

We appreciate the opportunity to comment on the U.S. Department of Energy's draft environmental impact statement for the long-term management and storage of elemental mercury.

We are pleased that the U.S. Department of Energy recognizes the potential impacts of this action to Oregon by conducting a spoken meeting. We are pleased that you came for a follow-up meeting on the EIS in Portland, Oregon.

And, Bill, particularly to you and your staff, we very much appreciate you coming out. I know it's a long journey.

As we mentioned previously in our comments during scoping, Oregon supports implementation of the Mercury Export Ban Act of 2008 and agrees that the long-term management and storage of elemental mercury is needed to

501-1

501-1

DOE acknowledges the commentator's support for the Mercury Export Ban Act of 2008 (P.L. 110-414) and its desire to eliminate mercury from the world marketplace.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

4
 1 reduce the supply of commodity mercury in the
 2 world marketplace.
 3 However, we had strong concerns with the
 4 potential selection of either Hanford or the
 5 Idaho National Lab for this activity because of
 6 their proximity with the Columbia and Snake
 7 Rivers, water bodies that already exceed Oregon
 8 water quality standards for mercury and have
 9 multiple mercury water quality concerns.
 10 We also had concerns with this activity
 11 potentially negatively impacting environmental
 12 cleanup activities at the Hanford site, which
 13 is necessary to protect the Columbia River.
 14 Bringing more waste to Hanford could divert
 15 management attention and potentially also
 16 impact cleanup funding.
 17 DOE has identified Waste Control
 18 Specialists, a Limited Liability Corporation,
 19 near Andrews, Texas, as the preferred
 20 alternative location for long-term storage of
 21 U.S. mercury.
 22 While we have not studied the analysis to
 23 determine whether this is a suitable location,
 24 we are pleased that DOE apparently has
 25 acknowledged that neither Hanford nor the Idaho

501-2

DOE acknowledges the commentor's concerns regarding potential impacts on the Columbia River and Snake River from mercury storage at Hanford and INL, respectively. As described in Chapter 4, Sections 4.4.3.1 (Hanford) and 4.6.3.1 (INL), construction or modification and operation of a mercury storage facility within either the developed 200-West Area of Hanford or the Idaho Nuclear Technology and Engineering Center or Radioactive Waste Management Complex areas of INL would have negligible impacts on water resources. There would be no direct discharge of effluents to either surface water or groundwater from storage facility operations and no impact on water quality. In addition, the design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility.

501-1
 cont'd

501-2

501-3

501-3

As stated in Chapter 4, Section 4.4.8, of this *Mercury Storage EIS*, DOE continues to manage several ongoing programs and projects at Hanford in support of sitewide remediation. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.

501-4

The identification of a Preferred Alternative does not imply that any of the other candidate sites analyzed are not suitable sites for the long-term management and storage of elemental mercury. Please see Chapter 2 for a summary of impacts and Chapter 4 for a detailed discussion of impacts at all of the alternative sites. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

501-4

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

5

National Laboratory are suitable locations for this mission.

Although it is part of a different program, DOE has also engaged at the moment in writing a draft environmental impact statement for the disposal of greater than Class C waste. Hanford is also a potential candidate for disposal of some of this highly radioactive waste. We strongly encourage DOE to again find that Hanford is not an acceptable location for that mission, as well.

Apart from these comments, in addition, I would also note that Hanford -- one of the issues that we have is that the Pacific Northwest is home to the Cascadia subduction zone.

And one of the problems we have in the region is the potential for the Cascadia earthquakes. These earthquakes, if you have not studied them or heard about them, are larger even than those that just occurred in Chile.

The potential for Cascadia is about 75 miles off the Oregon Coast, rupturing on a 1,000-kilometer-long fault line with a Richter

501-5

501-4
cont'd

Disposal of greater-than-Class C waste is not within the scope of this *Mercury Storage EIS*. DOE will accept comments on the *Draft Environmental Impact Statement for the Disposal of Greater-Than-Class C Low-Level Radioactive Waste (Draft GTCC EIS)* after it is published. The *Draft GTCC EIS* was not published in time to be included and considered in the cumulative impacts discussion of this EIS. However, Chapter 4, Section 4.11.2, does acknowledge DOE's intent to prepare the *Draft GTCC EIS* and its consideration of Hanford, INL, and SRS as candidate sites.

501-6

501-5

DOE acknowledges the commenter's concerns regarding the seismic hazard in relation to mercury storage at Hanford and INL. Chapter 3, Sections 3.3.2.3 and 3.5.2.3, of this *Mercury Storage EIS* describe geologic hazards in the Hanford and INL regions, respectively. The sections describe historical seismicity (i.e., frequency and location of earthquakes) and the sites' proximity to active faults. Chapter 4, Sections 4.4.2.2 and 4.6.2.2, specifically assess the effects earthquakes could have on a mercury storage facility at Hanford and INL using the latest probabilistic earthquake ground motion data from the U.S. Geological Survey to specifically compare the candidate sites. The available data indicate a moderate risk to Hanford facilities; thus, a more-rigorous facility design would be required. The data indicate a minimal risk to INL facilities. Regardless of the site chosen, the mercury storage facility would be designed and constructed to withstand the assessed hazard.

501-6

Nevertheless, the facility accidents analysis specifically evaluated earthquake-induced spills of 3-liter (34.6-kilogram [76-pound]) flasks or 1-metric-ton (1.1-ton) containers, as shown in Chapter 4, Table 4-3, for all candidate sites and described in Sections 4.4.9.2 and 4.6.9.2 specifically for Hanford and INL. Appendix D, Section D.2.5.2, describes the methodology used for evaluating earthquake-induced spills and conservatively assumed beyond-design-basis earthquake conditions. Section D.2.2 describes the conditions under which the mercury containers would be stored. The pallets of 3-liter flasks would stand in a metal spill tray capable of holding the contents of 10 percent of the flasks in the pallet. They could then be placed onto seismically rated storage racks and stacked either two or three high. The 1-metric-ton containers would be stored on spill trays on the floor of the facility.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement March 2, 2010

6
 1 9.5 earthquake, continuing for six minutes.
 2 By the time you get to Eastern Washington,
 3 that ends up in long period waves. They're
 4 probably something in the neighborhood of 30 to
 5 100 feet long. We actually have earth waves.
 6 And so the seismic issues that we've seen at
 7 Hanford are to be very interesting and
 8 different than we've seen elsewhere.
 9 And so when I see the double and triple
 10 racking where you've got several tons in the
 11 air on racks, those racks might have to be very
 12 substantial if Hanford was considered.
 13 Likewise, for both Hanford and Idaho, both
 14 the facilitates sit on a series of faults in a
 15 fault band called the Olympia-Wallowa
 16 lineament. It's also call the OWL for short.
 17 It's not well understood by geologists, but it
 18 is a whole seismic band across the entire
 19 region and something to watch out for.
 20 One other comment that I would add, in
 21 looking through the EIS, is that I would
 22 encourage you to be careful as you look at the
 23 specific sites, as you have, to look at the
 24 habitat in particular.
 25 Hanford has some interesting habitat

501-6
cont'd

501-7

501-7 DOE acknowledges the commentor's concerns regarding potential impacts on natural habitat. Within the "Ecological Resources" sections of Chapter 3 of this *Mercury Storage EIS*, DOE has assessed existing conditions with respect to terrestrial and aquatic habitat and wildlife, wetlands, and the potential presence of threatened or endangered species at each of the candidate sites. Potential impacts on ecological resources are presented in the corresponding sections of Chapter 4. With respect to Hanford, Chapter 4, Section 4.4.5.1, of this EIS notes that habitat in the vicinity of the proposed mercury storage facility site adjacent to the 200-West Area consists of disturbed land within a developed setting. No threatened or endangered species are known or are expected to exist within the area of the proposed facility, and no impacts on high-quality natural habitat or on threatened or endangered species are expected from facility construction or operations.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement

March 2, 2010

7

1 problems where there is a limited amount of
2 high quality habitat, another limited amount of
3 less quality habitat, and a lot of area that's
4 been burned off. And, unfortunately, where the
5 more high quality habitat is now is mostly in
6 the center of the site where the facilities
7 are.

8 And so it creates a potential problem,
9 particularly for the protection of two
10 threatened species, as well as several other
11 potentials, as well.

12 And again, thank you for coming.

13
14 MS. MARIA PEELER: I am Maria Victoria
15 Peeler. I'm the senior policy specialist for
16 the Washington State Department of Ecology, and
17 I represent the State of Washington tonight in
18 our comments for the Department of Energy's
19 proposed siting of a mercury site.

20 The very first thing is that we would like
21 to thank you, as we did the last time, for
22 coming. I know it's a long ways to come and
23 have the public meeting, particularly in a
24 well-approached area that's great, and then to
25 have a second meeting like you do, because you

501-7
cont'd

Response side of this page intentionally left blank.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

8
 1 could have just done it in Richland. So we
 2 really appreciate that.
 3 The following comments are submitted by
 4 Ecology staff, I want to clarify that, after we
 5 reviewed the draft EIS. The final comments,
 6 written comments, will be submitted to you
 7 prior to March 30th, as you requested, and at
 8 that point then you will have a complete set of
 9 statements.
 10 For now, we had some particular interests
 11 in mind that we wanted to raise. After
 12 listening to Oregon we agree 100 percent with
 13 their comments and we would like to incorporate
 14 into tonight's comments that we will be
 15 continuing to work with Oregon to make sure
 16 that our comments are not repetitive but that
 17 we support each other.
 18 As previously testified, Ecology
 19 recognizes the need to site a national
 20 permanent mercury repository and, therefore,
 21 supports this project. Ecology has collected
 22 over 14,000 pounds of mercury from spent
 23 products, precisely to prevent further release
 24 and contamination of mercury.
 25 Ecology believes permanent storage is

502-1

502-1

DOE acknowledges Washington State Department of Ecology's support for the Oregon Department of Energy's comments on this *Mercury Storage EIS*.

502-2

DOE acknowledges the commentor's support for the Mercury Export Ban Act of 2008 (P.L. 110-414). As described in Chapter 1, Section 1.3.1, although the Act contemplates indefinite storage, DOE has used a 40-year period of analysis in this *Mercury Storage EIS* for the purposes of evaluating potential environmental impacts associated with long-term storage. Additional NEPA documentation would be required to evaluate extending storage facility operations beyond the 40-year period of analysis.

502-2

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

9

imperative to prevent endless global circulation of this very potent contaminant.

Our first priority is fast and effective cleanup of the current contamination at Hanford. Ecology does not support any diversion from that goal.

Ecology believes that the cost of siting and oversight should be shared nationally and not fall on the whole state. Regarding the DEIS specifically, Ecology supports U.S. DOE's preferred alternative based on some of the reasons cited in the DEIS, specifically compatibility with existing waste management activities and its plans and regulatory agreements; remote location; low population density in surrounding areas; not nearby major bodies of surface water and existing rail lines.

However, Ecology does not believe that the DEIS fully characterizes the impacts of siting a repository. For example, federally funded projects must fully comply with Executive Order 12898 and 506 of the Civil Rights Act. Ecology believes that these requirements are not currently fully met in the DEIS and must be

502-3 As stated in Chapter 4, Section 4.4.8, DOE continues to manage several ongoing programs and projects at Hanford in support of sitewide remediation. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.

502-4 Costs are not presented in this *Mercury Storage EIS*. The question of financial responsibility for the cost of oversight of the mercury storage facility(ies) is outside the scope of this EIS.

502-5 DOE acknowledges Washington State Department of Ecology's support for the identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

502-6 DOE is committed to fully considering all environmental justice concerns in its NEPA analyses and decisionmaking processes. The methodology used to develop the "Environmental Justice" sections of this *Mercury Storage EIS* is described in Appendix B, Section B.11. The "Environmental Justice" sections in Chapter 3 of this EIS describe the existing distribution of minority and low-income populations within 16 kilometers (10 miles) and 3.2 kilometers (2 miles) of the candidate sites. The "Environmental Justice" sections in Chapter 4 include an analysis of potential environmental justice impacts. Specifically with regard to Hanford, Chapter 4, Section 4.4.12, presents the analysis of potential environmental justice impacts, including the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations. As stated in the section, no disproportionately high and adverse effects on minority or low-income populations are expected.

502-2 cont'd

502-3

502-4

502-5

502-6

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

10
 1 expanded. You make an attempt at using the
 2 concepts of it, but you do not follow through.
 3 The other example we have is that complete
 4 details are missing regarding the options you'd
 5 consider if other pending components of the
 6 law, such as exportation bans of mercury
 7 compounds, trigger additional or different
 8 storage needs.
 9 You hinted a couple of times that this may
 10 not be the site, the final site, or that there
 11 may be more than one site. And so the DEIS
 12 should be clearer, more straightforward, and
 13 actually take a look at at least identifying
 14 within the assessments that you have done which
 15 ones would be next likely to be considered. It
 16 is only fair to let the public know ahead of
 17 time what you're thinking.
 18 The U.S. EPA is in the lead in the
 19 development of the national strategy for the
 20 life cycle management of all mercury, including
 21 mercury compounds. Without EPA's mercury
 22 compound research and assessment completed,
 23 characterization of the needs for mercury
 24 management at the U.S. DOE DEIS is incomplete.
 25 Please add information on how you intend to

502-7

As described in Chapter 1, Section 1.3.1, recognizing the potential for exported mercury compounds to be processed into elemental mercury, Congress directed EPA to publish a report on mercury compounds that may currently be used in significant quantities in products or processes no later than 1 year after the date of enactment of the Mercury Export Ban Act of 2008 (P.L. 110-414). EPA submitted a report entitled *Potential Export of Mercury Compounds from the United States for Conversion to Elemental Mercury* to Congress in October 2009 (EPA 2009). The report provides information on sources, amounts, and uses of mercury compounds; assesses the potential for these compounds to be processed into elemental mercury after export; and provides information for Congress to consider in determining whether to extend the Act's mercury export prohibition to include one or more of these mercury compounds. If certain mercury compounds are eventually added to the mercury export ban, resulting in quantities of elemental mercury that would require storage in excess of 10,000 metric tons (11,000 tons), additional NEPA documentation would be necessary.

502-6
cont'd

502-7

502-8

If operation of the DOE mercury storage facility(ies) is delayed beyond the January 1, 2013, date mandated in the Mercury Export Ban Act of 2008 (P.L. 110-414), mercury could continue to be safely stored at existing storage locations and generating facilities until the DOE storage facility(ies) is ready. However, if DOE decides to select WCS as its mercury storage site, an existing WCS building with an existing RCRA permit could be used to store mercury while a new building is being permitted and constructed. If the location selected in the ROD for this *Mercury Storage EIS* were to become unavailable, another candidate site could be selected in a revised ROD. Based on preliminary site evaluation criteria and the analyses of potential impacts in Chapters 2 and 4 of this EIS, DOE believes that any of the candidate sites considered are suitable for the long-term storage of elemental mercury. Impacts were found to be minimal at all sites; minor differences are shown in the "Summary and Guide for Stakeholders," Table 3.

502-8

502-7
cont'd

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

11

reconcile the information.
 Ecology requests you also add information regarding what additional alternatives will be used if the preferred alternative site is not completed or permitted on time. I think that that's really another -- it's within, still within the same context as the earlier comment.

Since Hanford has not been chosen as the preferred alternative, Ecology will not provide further input at this point. However, should either repository sites become necessary, Ecology strongly believes that further analysis will be necessary to complete an accurate and full analysis prior to siting any additional repository or storage site. This is particularly true for Hanford.

Hanford's focus needs to remain on cleanup until completion, which is anticipated to take decades. Ship instruction and storage at the preferred site in Texas become infeasible. Ecology does not support further consideration of Hanford for mercury storage until there is a full characterization of the potential environmental impacts of a mercury repository site at Hanford.

502-8
 cont'd

502-9

502-9

DOE believes that this *Mercury Storage EIS* sufficiently characterizes the potential environmental impacts of constructing and operating a mercury storage facility at Hanford. With respect to cleanup of wastes and associated groundwater contamination at Hanford, the proposed action and the existing cleanup missions are independent programs; thus, actions related to one would not impact the other. Cleanup activities at Hanford continue to be a high priority for DOE. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement March 2, 2010

12

1 Once again, the Oregon comments provide
 2 much more detail, which we will follow up on.
 3 Ecology also believes that if Hanford is ever
 4 considered again as an alternative for a
 5 repository, special environmental
 6 characterization and assessment would need to
 7 occur. Habitat, for example, is a good one to
 8 raise.

9 In other words, using the same DEIS would
 10 not be quite adequate to get to the final
 11 result, particularly if you decide that you
 12 need more than one site for different reasons.
 13 Each considered site has to meet state specific
 14 preapplication and application processes and
 15 requirements.

16 They should be incorporated and discussed
 17 in the DEIS in a clear manner. This addition
 18 will clarify the significant practical
 19 advantage of the preferred alternative.

20 It will also show the relative time
 21 constraints and cost of nonpreferred
 22 alternatives should another repository become
 23 necessary. Therefore, it should be more fully
 24 discussed in the DEIS. I'm almost done.

25 All but two of the alternative facilities

502-10

DOE acknowledges the commentor's statement regarding the need to discuss each candidate mercury storage site's history of RCRA compliance. In addition to RCRA, the facilities being considered in this EIS operate under a wide range of Federal and state requirements, as well as DOE Orders. Due to the varied nature of the sites under consideration, the different regulatory schemes under which they operate, and differences between existing site operations and the proposed elemental mercury storage facility(ies), a fair comparison of the sites' compliance histories would be difficult.

For those interested in compliance history, information is available through the EPA Enforcement and Compliance History Online (ECHO) database (<http://www.epa.gov/oecaerth/data/systems/multimedia/echo.html>). In addition, information for DOE sites is summarized in annual site environmental reports (<http://www.em.doe.gov/Pages/asers.aspx>).

502-9
cont'd

502-10

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

13

1 have existing RCRA permitted operations. The
 2 DEIS should discuss RCRA compliance history of
 3 the existing operations. This is what I was
 4 trying to get at earlier.

5 Even a well-designed facility with
 6 appropriate environmental operating
 7 requirements can result in unexpected
 8 significant environmental impact if the
 9 owners/operators do not manage it in
 10 significant compliance with environmental
 11 requirements. Poor compliance history should
 12 be considered as a potential risk for a site in
 13 the EIS evaluation.

14 Since a large building fire could lead to
 15 very significant human exposure and long-term
 16 environmental impact, the risk of that scenario
 17 should be more comprehensively addressed in the
 18 DEIS.

19 Among other information, this would help
 20 establish the relative importance of selecting
 21 construction and operation materials; for
 22 example, use of combustible versus
 23 noncombustible construction materials.

24 And you have a portion of that. And we
 25 can get -- I don't want to get into the

502-11

Appendix D, Sections D.2.4.5 and D.2.4.6, discuss the potential for fires in the mercury storage building. These sections conclude that the predicted frequency of fires that lead to a release of mercury from the storage building is in the Frequency Level I (negligible) range and that the associated risks are therefore negligible. Several factors contribute to this conclusion: (1) forklifts would be electric, so they would not provide a source of fuel for a fire; (2) there would be no fuel lines or fuel storage vessels inside the mercury storage building; (3) there would be no flammable materials in the construction of the building; (4) administrative controls would limit the amount of flammable material kept in the building; (5) the wooden pallets that contain the mercury flasks would be treated with fire-retardant coatings; and (6) there would be a fire suppression system in place.

502-12

Chapter 2, Section 2.2.1, describes the construction of a new DOE facility for long-term mercury storage. The building construction would be primarily of noncombustible materials and would include a fire suppression system (e.g., sprinkler). The new facility would have a reinforced-concrete floor, strong enough to withstand the heavy loads from mercury storage. The floors would also be treated with an epoxy sealant to add strength and make them impervious to mercury leaks and spills and water from fire suppression systems. The exterior of the storage facility would likely be sheet metal panels fastened to structural steel supports and connected together to form a weather-protected structure. Lighting, ventilation, fire suppression, and security monitoring systems would be incorporated into the facility design. Appendix C, Table C-1, provides additional construction details for existing buildings at candidate sites. Appendix C, Table C-2, lists the materials expected to be used for construction of a DOE facility. The major source of combustible material is wooden storage pallets used to store 3-liter (3-L) flasks; however, the *Interim Guidance* (DOE 2009a) states:

The 3-L containers are preferred to be sent in box pallets that comply with the following: ...(4) the pallet may be constructed of painted steel, untreated hardwood with fire protective paint applied, treated hardwood, or other materials that have equivalent load capacity, fire resistance, degradation rate (e.g., expected life), and would not require disposal as hazardous waste.

502-10
 cont'd

502-11

502-12

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

14

1 details, the engineering details of it, but we
 2 will be happy to submit that to you if you
 3 would like us to work with you on that portion
 4 of it.

5 Potential groundwater impacts should be
 6 assessed and described. There is no clear and
 7 straightforward discussion of potential
 8 groundwater impacts should a spill occur during
 9 transportation, loading, unloading, or
 10 disposal.

11 It is understood that the containers are
 12 fairly resistant to breakage and spillage.
 13 Accidents and natural disasters, however,
 14 happen with an effect to groundwater that is
 15 totally outside the context of a simple
 16 accident.

17 Lastly, we encourage you to incorporate
 18 and reference how you use the information
 19 submitted by states to the U.S. DOE during the
 20 mercury repository interim guidance review. We
 21 believe such an approach would make the EIS
 22 more complete and effective.

23 And I have brought a copy of it to submit
 24 to you just for reference, just in case you
 25 forgot about it.

502-13

DOE acknowledges the commentor's concerns regarding potential impacts on groundwater resources from mercury spills during transportation. To clarify, the proposed action is the management and storage, not disposal, of elemental mercury. DOE has evaluated the risk to groundwater from normal facility operations, facility accidents, and transportation accidents. Construction and routine operations of a mercury storage facility are not expected to have any impact on groundwater beneath Hanford, as described in Chapter 4, Sections 4.4.3.1 and 4.4.3.2. The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility.

The likelihood of spills into water bodies or similar features is discussed qualitatively in Appendix D, Section D.2.8, of this *Mercury Storage EIS*, where it is conservatively concluded that the frequency of such events anywhere along a transportation route is moderate for truck transportation and low for railcar transportation. The possibility of spillage directly into a Texas river or waterway is further discussed in Chapter 4, Section 4.4.9.3.2, of this EIS. The overall conclusion is that a direct spillage of mercury into a body of water could be of concern if it is not cleaned up, but there is generally adequate time for such cleanup. Hence, the consequences to humans could be managed so that they are negligible or low. Given this assumption and the fact that the frequency of crashes with spills on any of the transportation routes is no more than moderate (and this is an upper bound on the frequency of spills directly into water), the risk would be negligible or low for all transportation routes. However, DOE recognizes that there is a large degree of uncertainty regarding this conclusion in the case of spillage into fast-flowing rivers.

502-14

DOE would like to thank those that submitted comments on the *Draft Interim Guidance* (DOE 2009a). DOE considered and incorporated, when appropriate, comments received on the *Interim Guidance* prior to the release

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

15

1 FACILITATOR PARHAM: Thank you, Maria.
 2 Gerry?
 3
 4 MR. GERRY POLLET: Thank you. I'm Gerry
 5 Pollet, P-O-L-L-E-T, with Heart of America
 6 Northwest.
 7 As the region's leading largest Hanford
 8 cleanup watchdog group, we are pleased that the
 9 Energy Department has said that Hanford is not
 10 the preferred alternative and selected a
 11 different preferred alternative.
 12 However, we remain concerned that, as has
 13 been mentioned by others tonight, that more
 14 than one site may be needed, based on projected
 15 volumes and impacts from export controls and
 16 other economic changes and forecasts.
 17 So we remain concerned that the potential
 18 siting of the facility remains with Hanford as
 19 a potential siting and that they be returning
 20 to a use with EIS for a Hanford disposal
 21 facility, in which case the cumulative impacts
 22 and site specific impacts should have been
 23 included in the current Hanford tank closure
 24 waste management environmental impact
 25 statement, which is supposed to cover all

of the final version on November 13, 2009. This *Mercury Storage EIS* and the associated analyses are consistent with the *Final Interim Guidance* and considered state comments received on that document.

DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at Hanford. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

DOE acknowledges the commentor's concern that more than one site could be used for the management and storage of elemental mercury. However, as noted in Chapter 2, Section 2.6.1, DOE eliminated the alternative of multiple sites from further evaluation because the duplicative resources that would be required would not be cost-effective. If more than 10,000 metric tons (11,000 tons) of elemental mercury requires storage in the future at either the selected site or a second site, or if storage is required for more than 40 years, DOE would prepare additional NEPA documentation as appropriate.

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

DOE acknowledges the commentor's concern that the cumulative impacts analysis presented in the *Draft Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington (TC & WM EIS)* does not include the proposed action associated with this *Mercury Storage EIS*. The *Draft TC & WM EIS* was published in October 2009, before the *Draft Mercury Storage EIS* was issued in January 2010. Therefore, information on the mercury storage alternatives could not be included in the *Draft TC & WM EIS*. However, the preparation of a *Mercury Storage EIS* is mentioned in Chapter 1, Section 1.8, of the *Draft TC & WM EIS*.

503-1

503-2

503-3

503-1

503-2

503-3

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

16

1 related pending federal proposals.

2 And just last night we had one of the
 3 eight hearings around the region on that DEIS,
 4 and we repeatedly noted that the Energy
 5 Department has failed to include in that DEIS
 6 all related federal Department of Energy
 7 proposals.

8 And this is one of them that is not
 9 covered, and it needs to be because there will
 10 be significant cumulative impacts and direct
 11 impacts from the proposal at Hanford, ranging
 12 from shipment through long-term storage.

13 There is a need to end the realm of
 14 self-regulation, and this proposal recognizes
 15 that. However, we are concerned about the
 16 level of state capability to regulate a
 17 specific hazard, such as mercury, as
 18 inadequate, and that specific construction and
 19 storage standards for mercury are necessary.

20 We are concerned about the failure to
 21 address the need to provide funding for EPA to,
 22 A, adopt specific rules, not relying on general
 23 RCRA rules for long-term storage of mercury,
 24 and specific standards for the facility to meet
 25 in advance.

503-4

503-3
 cont'd

503-4

The inclusion of the proposed action for this *Mercury Storage EIS* in the cumulative impacts analysis of the *TC & WM EIS* is dependent on the timing of any final decisions associated with the *Mercury Storage EIS* with respect to publication of the *Final TC & WM EIS*. In any event, because impacts from mercury storage at Hanford would be negligible to minor, mercury storage activities are not expected to contribute substantially to cumulative impacts at Hanford.

The Mercury Export Ban Act of 2008 (P.L. 110-414) stipulates that elemental mercury managed and stored at a DOE-designated facility(ies) is subject to the requirements of RCRA. Section 3006 of the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.) allows states to establish and administer RCRA programs with EPA approval, provided state programs are equal to or more stringent than the Federal program. The State of Washington has such an approved RCRA program. As required under Section 5 of the Mercury Export Ban Act, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The guidance is based on laws, regulations, DOE Orders, and best management practices. The *Interim Guidance* discusses DOE's anticipated waste acceptance criteria; procedures DOE would use to receive, store, and monitor the mercury; and spill and emergency response procedures.

As specifically noted throughout Chapter 4 of this *Mercury Storage EIS*, the design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases, should they occur as a result of abnormal operating conditions, from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Structural elements include containment and other engineering features, including the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further described in Appendix C, Section C.2.1. In addition, facility operations would be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, or equivalent plans as mandated by state requirements for RCRA-permitted facilities, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Seismic design would be dictated by DOE Order 420.1B and its companion guide (DOE Guide 420.1-2), which require that facilities be designed, constructed, and operated so that the public, workers, and environment are protected from

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement

March 2, 2010

17

1 Meeting a generic RCRA facility standard
 2 is incorporated from -- the applause in the
 3 background, it must be been something I said.

4 FACILITATOR PARHAM: Good timing.

5 MR. GERRY POLLET: For instance, there are
 6 specific fire hazards with mercury. They need
 7 to be addressed with specific rules for a
 8 storage facility. There are specific rules
 9 that are needed for response to releases,
 10 airborne and liquid, and a special seismic
 11 standard, none of which are in the generic RCRA
 12 rules with the specificity that is needed for
 13 safe regulatory oversight at this facility.

14 Interestingly, I'd like to say that I
 15 wasn't quite sure about the questions that
 16 Maria was asking at the beginning, but in her
 17 comments she's pointed to something that we
 18 decided we really wanted to emphasize, as well,
 19 which is that the analysis of the potential for
 20 an accident needs to consider the RCRA
 21 compliance record of any private operator.
 22 And this is fairly ironic, because it
 23 should also consider the RCRA compliance record
 24 of the Energy Department, which would make
 25 pretty much anyone look pretty good.

adverse impacts of natural phenomena hazards, including earthquakes. The natural phenomena hazard mitigation requirements and criteria of DOE Order 420.1B and associated guidance and implementation standards are further summarized in Appendix B, Section B.3.2. In summary, the criteria specifically reflect adoption of the seismic design and construction provisions and associated seismic hazard maps of the International Building Code as the minimum standard for design and evaluation of DOE facilities (i.e., for Performance Category 1 and 2 structures, systems, and components). For structures, systems, and components requiring a higher level of performance from a safety perspective (i.e., Performance Category 3 and 4), a more-rigorous design analysis is required, including performance of a probabilistic seismic hazard assessment to determine the design-basis earthquake.

503-5

DOE acknowledges the commenter's statement regarding the need to discuss each candidate mercury storage site's history of RCRA compliance. In addition to RCRA, the facilities being considered in this EIS operate under a wide range of Federal and state requirements, as well as DOE Orders. Due to the varied nature of the sites under consideration, the different regulatory schemes under which they operate, and differences between existing site operations and the proposed elemental mercury storage facility(ies), a fair comparison of the sites' compliance histories would be difficult.

For those interested in compliance history, information is available through the EPA Enforcement and Compliance History Online (ECHO) database (<http://www.epa.gov/oecaerth/data/systems/multimedia/echo.html>). In addition, information for DOE sites is summarized in annual site environmental reports (<http://www.em.doe.gov/Pages/asers.aspx>).

503-4
cont'd

503-5

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

18

1 I hate to say that, but the Energy
 2 Department is the largest environmental
 3 scofflaw law in the United States. There is no
 4 one else who has flouted the application to
 5 RCRA to its facilities with the vehemence of
 6 the energy department.

7 So it is important for any specific site
 8 to have a -- to examine the RCRA compliance
 9 history of the operator in DEIS and to have
 10 standards under which, if there is a private
 11 operator, they will not be allowed to continue
 12 private operation for storage.

13 The standards needs to be set out very
 14 clearly if there are violations, whether it is
 15 violations of standards for construction or
 16 standards for operation.

17 There is a reasonable alternative that is
 18 missing, which is, even though it would require
 19 legislation, EPA says you must consider
 20 reasonable alternatives that include requesting
 21 legislative authority or legislation from
 22 Congress.

23 And that reasonable alternative that is
 24 missing is having all mercury generated subject
 25 to a fee. From the summary I wasn't clear, but

503-5
 cont'd

503-6

503-6

Costs are not presented in this *Mercury Storage EIS*. As described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement

March 2, 2010

19

1 in the questions you've answered my concerns
2 about this, Heart America Northwest's concerns,
3 that essentially this system has proposed as a
4 strong economic disincentive by charging only
5 generators who use the facility.

6 The more you regulate it, the more the
7 cost is, the more the death spiral of people
8 seeking to escape and continue to store mercury
9 inappropriately on their own or to ship it
10 elsewhere.

11 The solution to that is simple economics.
12 The fee needs to be charged to all generators
13 of mercury equally. Then if someone wants to
14 bear the special cost themselves of proper
15 storage, they would do so on top of having paid
16 in, and that would create economic incentive to
17 use a U.S. DOE facility or facilities.

18 Part of the cost that we are concerned
19 about is the cost that should be included in
20 those charges for not only the host state to
21 regulate but for EPA to directly regulate, which we
22 believe is important because we do not believe
23 that many of the states under consideration,
24 including Washington State, have a strong
25 enough RCRA program and a strong enough funding

**503-6
cont'd**

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**503-4
cont'd**

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

20

1 to do the job properly for such a specific
 2 waste stream, as opposed to EPA which could do
 3 it for a specific waste stream.

4 We've seen other arenas where states even
 5 with good RCRA programs delegated under EPA do
 6 not have the expertise to take on a specific
 7 regulatory element in regard to a special
 8 waste. And this is such a case where having
 9 just a delegated program does not mean that you
 10 have the expertise in-house in a state to
 11 properly regulate the storage of mercury.

12 As we've said earlier, as I've said
 13 earlier, we are concerned that the EIS utilizes
 14 a generic RCRA facility and does not consider
 15 additional requirements that should be imposed
 16 on the construction and operation of a
 17 facility. The generic RCRA facility is not
 18 designed with mercury in mind.

19 And in our scoping comments, we urge that
 20 the consideration -- that the EIS scope include
 21 the consideration of treatment technologies.
 22 We're disappointed that it doesn't really cover
 23 this, nor the compatibility of the storage and
 24 integration with treatment.

25 At the time we urged the consideration of

503-6
 cont'd

503-7

As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. EPA regulates the treatment and disposal of mercury-containing wastes through waste management regulations under RCRA. The treatment standard for mercury wastes with concentrations greater than or equal to 260 milligrams per kilogram is roasting or retorting the mercury waste in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery, yielding high-purity elemental mercury. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for discarded high-purity elemental mercury. Therefore, DOE is not considering stabilization treatment options for detailed evaluation in this EIS.

503-7

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement

March 2, 2010

21

1 adoption of the Canadian treatment technology.
 2 I understand tonight that there are several
 3 others out there that have potential. We
 4 believe that treatment is part and parcel of
 5 this process and that ending at long-term
 6 storage, even though that was the mandate from
 7 the law, is inadequate, and that the Energy
 8 Department can go beyond the minimum, and
 9 should go beyond, to consider the benefits of
 10 treatment systems and how the storage program
 11 would integrate with various treatment
 12 technologies that are being proposed and under
 13 consideration.

14 Thank you very much. And thank you for
 15 holding the hearing in Portland tonight.
 16 Obviously people are greatly relieved that
 17 Hanford is not the preferred alternative. This
 18 very room was packed to overflowing not two
 19 weeks ago -- yes, two weeks ago -- and Jim was
 20 at the front of the room, as well.

21 And with concerns about the
 22 transportation, about the cumulative impacts in
 23 the Tank Closure Waste Management EIS, it's a
 24 credit to the Department that one of the two
 25 major missing elements of cumulative impacts

503-8

DOE has performed a cumulative impacts analysis as part of this *Mercury Storage EIS*, which is presented in Chapter 4, Section 4.11.3. The analysis was performed in accordance with the methodology presented in Appendix B, Section B.12.1, of this EIS. As shown in Chapter 4, Table 4-71, the *Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington (TC & WM EIS)* was considered in the cumulative impacts analysis. As described in Section 4.11.3.2, the mercury storage facility's contribution to cumulative impacts would be negligible. The *Draft Environmental Impact Statement for the Disposal of Greater-Than-Class C Low-Level Radioactive Waste (Draft GTCC EIS)* was not published in time to be included and considered in the cumulative impacts discussion of this EIS. However, Chapter 4, Section 4.11.2, does acknowledge DOE's intent to prepare the *Draft GTCC EIS* and its consideration of Hanford, INL, and SRS as candidate sites.

503-7
cont'd

503-8

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

22

1 wasn't raised, which is this EIS as opposed to
 2 the greater than Class C waste, which was left
 3 out of that. But, again, very similar.

4 We don't believe that you can use this EIS
 5 for the Hanford facility, unless you tier off
 6 of it and do a site specific analysis with
 7 cumulative impacts from related waste import
 8 proposals. And the proper thing to have done
 9 would have been to integrate it and discuss it
 10 in the Tank Closure Waste Management EIS.

11 And since that is a draft, we've still got
 12 to include it. Thank you very much.

13 FACILITATOR PARHAM: Thank you.

14 Does anyone have additional comments
 15 they'd like to make?

16
 17 MR. MARTIN MIJAL: My name is Martin
 18 Mijal, M-I-J-A-L. And it seems like this --
 19 this is your job and you're doing, I'm sure, a
 20 wonderful job.

21 This seems like we're dealing with
 22 symptoms, not the cause. And I think of the
 23 planet's health or the earth's health, and to
 24 me that's the highest priority. Generating
 25 pollution, mercury or any pollution, is a

503-8
 cont'd

504-1

As discussed in Chapter 1, Section 1.3.1, and shown in Table 1-1, approximately 4,800 metric tons (5,300 tons) of the estimated inventory of elemental mercury that may be transferred for storage in a DOE facility(ies) (1) already exists in other storage locations; (2) is being used by industry; or (3) resides in commercial products, where the mercury may eventually be recovered. The Mercury Export Ban Act of 2008 (P.L. 110-414) prohibits the export of mercury from the United States effective January 1, 2013; however, the Act does not restrict or otherwise limit the generation or commercial use of mercury. Thus, actions limiting mercury generation or its commercial use are outside the scope of this *Mercury Storage EIS*.

504-1

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

23

1 crime. We are hurting -- if someone comes up
2 to hurt me, it's a crime.

3 So rather than deal with symptoms, the
4 federal law for how mercury is made, all
5 mercury, the manufacturing or mining of it
6 stops immediately. No one is addressing that,
7 that's my comment, or considering it. All
8 manufacturing and mining stops immediately.

9 And my second comment is, there are
10 multiple examples of the federal government
11 upsetting private corporations for their
12 pollution. This is backwards. Mercury
13 generators should not pollute the earth, the
14 earth and the living.

15 And then the last one is, it's premature
16 to store elemental mercury. This makes no
17 sense. This is typical of government from a
18 layman. Here is the law. We're going to do
19 what the law says. That's what Gerry said,
20 too.

21 If we're going to store it -- we could
22 keep it where it is for the next three years.
23 The corporate geniuses are busy exporting it.
24 It's cheap enough for -- but the priority
25 should be involving a treatment protocol that

504-1
cont'd

504-2

504-2

As discussed in Chapter 1, Section 1.3.1, and shown in Table 1-1, approximately 4,800 metric tons (5,300 tons) of the estimated inventory of elemental mercury that may be transferred for storage in a DOE facility(ies) (1) already exists in other storage locations; (2) is being used by industry; or (3) resides in commercial products, where the mercury may eventually be reclaimed. The Mercury Export Ban Act of 2008 (P.L. 110-414) prohibits the export of mercury from the United States effective January 1, 2013; however, the Act does not restrict or otherwise limit the generation or commercial use of mercury. Thus, actions limiting mercury generation or its commercial use are outside the scope of this *Mercury Storage EIS*.

504-3

504-3

DOE acknowledges the commenter's support for the No Action Alternative, in which mercury would be stored at the generating locations. As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for such elemental mercury wastes.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

March 2, 2010

Statement

24

1 is safe.

2 Then move the mercury to this treatment
 3 neutralization facility rather than, let's
 4 store it; oh, no, we figured out how to treat
 5 it. This is extremely premature, the whole
 6 policy, this whole thing.

7 Since profit-making corporations produce
 8 this pollution, it's logical that the private
 9 corporations pay the full cost of their past
 10 pollution.

11 FACILITATOR PARHAM: Thank you. Dirk?

12
 13 MR. DIRK DUNNING: Again, I'm Dirk
 14 Dunning, only this time I'm speaking as a
 15 private citizen, on is I'm on break. Not that
 16 there's anything I'm going to say that I think
 17 the state would disagree with, but not having
 18 run it through the approval process, that's the
 19 way that is.

20 Number one, I think this is a really great
 21 idea, that getting the mercury out of commerce
 22 as much as we can, particularly that, but also
 23 several other toxic metals, is a good thing. I
 24 would argue that cadmium is another one like
 25 that, along with lead, that these should be

504-3
cont'd

504-4

504-4

Costs are not presented in this *Mercury Storage EIS*. As described in Chapter 1, Section 1.6, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury. In addition, the generators of the mercury will be responsible for the costs of shipping mercury to the DOE storage facility(ies). The question of assessing additional fees on mercury generators is outside the scope of this EIS.

505-1

505-1

DOE acknowledges the commentor's support for the removal of mercury and certain other elements from commerce. However, since the Mercury Export Ban Act of 2008 (P.L. 110-414) only addresses mercury, the analysis presented in this *Mercury Storage EIS* is limited solely to that element.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement

March 2, 2010

25

505-1
cont'd

1 removed to the greatest degree possible.

2 The thing that seems to be missing is two
3 aspects. One, there is not yet direction for
4 the department of the government, whether
5 that's energy or whether it's EPA or another
6 one, to do the studies necessary and to drive
7 the development of the waste forms in order to
8 get this material into a truly stable,
9 long-term form, where it can either be in
10 disposal or in service storage and be truly
11 safe for as long as it needs to be.

12 Now, we have an unfortunate history in our
13 country of holding things in a temporary basis,
14 planning that someday we will do something
15 about it, only to find that sometime in the
16 future when it's a problem that today is the
17 day that we thought we would have years ago
18 figured out an answer. Well, we haven't yet.
19 We need that.

20 We need, particularly probably through the
21 congress, or maybe it's through one of the
22 departments, an effort to drive the conversion
23 of this material to a stable form and develop
24 the technology necessary.

25 The other big piece I think that's missing

505-2 As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. EPA regulates the treatment and disposal of mercury-containing wastes through waste management regulations under RCRA. The treatment standard for mercury wastes with concentrations greater than or equal to 260 milligrams per kilogram is roasting or retorting the mercury waste in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery, yielding high-purity elemental mercury. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for discarded high-purity elemental mercury. Therefore, DOE is not considering stabilization treatment options for detailed evaluation in this EIS.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement March 2, 2010

26

1 is that industry, particularly light industry,
2 even people, use mercury in a lot of different
3 ways; in fluorescent light bulbs and all kinds
4 of other forms. There is an economic
5 disincentive to handle that material
6 incorrectly in disposal.

7 There needs to be some way to correct that
8 so that it is easy for people to get this
9 mercury into stable form, into this kind of
10 long-term permanent storage. And that doesn't
11 exist. We need that.

12 One last one, and this is a very odd
13 thought, and I'm sure it's not going to rise to
14 the level of being worth analyzing, but I'll
15 give it to you for analysis anyway.

16 In the 1990s and just past 2000, there
17 were a series of blue-green meteors observed in
18 the Pacific Northwest. People thought they
19 were UFOs. They thought they were meteors.
20 Nobody was quite sure what they were.

21 They happened every month or every couple
22 of months, and nobody knew what it was, and it
23 really wasn't too hard to figure out what it
24 was. It would be really nice if they never
25 came back again. And so to the degree that you

505-2
cont'd

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Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement March 2, 2010

27

1 can, it would be nice to talk with other
 2 agencies in the federal government, to talk to
 3 your Russian counterparts, and say, please
 4 don't throw rocks at our facilities.

5 Apparently what they were was proton N
 6 boosters launched out of Kazakhstan with a D/M
 7 upper block, a heavy upper block third stage,
 8 the third stage reentering over the Pacific
 9 Northwest and impacting something upwards of
 10 mach 4. These things were a couple-ton objects
 11 impacting at that speed.

12 One of them impacted the Columbia River,
 13 the Pasco Blue Bridge, and was observed there.
 14 There's others that -- nobody has ever traced
 15 one of these to actually find the object that
 16 impacted it.

17 But apparently what people were seeing was
 18 this booster upper body coming in through the
 19 atmosphere at a high mach number and slowing
 20 down. And for all the world, what they were
 21 looking at was a bullet head-on, glowing in the
 22 atmosphere as it's coming at them.

23 If something like that was to strike a
 24 storage facility or a mercury facility or
 25 anything related, it would probably be a bad

505-3

505-3

DOE acknowledges the commentator's statements and concern regarding the potential for a reentering space vehicle to impact a mercury storage facility. In developing the facility accidents analysis for this *Mercury Storage EIS*, representative external events that could initiate onsite accidents, such as various natural phenomena, aircraft crashes, vehicle crashes, and nearby fires and explosions, were evaluated. These events are discussed in Appendix D, Section D.2.5, of this EIS within the context of the overall methodology for the occupational and public health and safety analysis. As described in Section D.2.5.7, the frequency of an aircraft crash into a mercury storage building would be less than one in a million. The potential for a reentering space vehicle to impact the mercury storage facility would certainly be less than one in a million.

Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement March 2, 2010

28

1 day.
2 So I'm guessing it's probably less than
3 one in several million. And if the Russians
4 have truly ceased launching these, then we're
5 not in the fall zone anymore. But it would be
6 pretty good not to have them anymore. Thank
7 you.

8 FACILITATOR PARHAM: Thank you. Any
9 additional comments at this time?

10 If not, thanks to Bill, and thanks to you
11 for being here. I appreciate the comments.
12 And thanks to Pam for taking them down.

13 Appreciate it. Thank you all for coming.
14 (Proceedings concluded at 7:20 p.m.)

15 (NOTE: As a matter of firm policy, the
16 stenographic notes of this transcript will be
17 destroyed five years from the date appearing on
18 the following certificate, unless notice is
19 received otherwise from any party or counsel
20 thereon or before said date of March 11, 2015.)

21 * * *

505-3
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Comments from the Portland, Oregon, Public Hearing (March 2, 2010)

Statement March 2, 2010

29

CERTIFICATE

I, the undersigned, Pamela Beeson Frazier, hereby certify that the foregoing proceedings were reported by me, a Registered Professional Reporter and Certified Shorthand Reporter for Oregon, Washington and California, and were thereafter transcribed using computer-aided transcription under my direction; that the foregoing is a full, complete and true record of said proceedings.

I further certify that I am not of counsel or attorney for either or any of the parties in the foregoing proceedings and caption named, or in any way interested in the outcome of the cause named in said caption.

IN WITNESS THEREOF, I have hereunto set my hand and affixed my stamp at Portland, Oregon, this 11th day of March, 2010.

Pamela Beeson Frazier
PAMELA BEESON FRAZIER
OREGON CSR No. 90-0061

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Comments from the Richland, Washington, Public Hearing (March 3, 2010)

1

U.S. DEPARTMENT OF ENERGY

DRAFT LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING
DATE: MARCH 3, 2010
5:30 P.M.

RED LION HOTEL RICHLAND HANFORD HOUSE
802 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

Jim Parham, Facilitator

PANEL MEMBER:
Bill Levitan, U.S. Department of Energy

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Comments from the Richland, Washington, Public Hearing (March 3, 2010)

Public Hearing	March 3, 2010
1	2
2	U.S. DEPARTMENT OF ENERGY
3	LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY
4	ENVIRONMENTAL IMPACT STATEMENT
5	FORMAL COMMENT SESSION
6	PAGE
7	3
8	LINE
9	10
10	
11	
12	
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Comments from the Richland, Washington, Public Hearing (March 3, 2010)

Public Hearing March 3, 2010

3

1 P R O C E E D I N G S

2 MR. PARHAM: Thanks for coming to the meeting, the

3 Department of Energy's hearing on the draft environmental impact

4 statement on the long-term management and storage of elemental

5 mercury here in the Tri-Cities.

6 Let it be noted that Bill Levitan, the head of DOE's office

7 of environmental compliance has provided a brief presentation of

8 slides to those in attendance. And we'd now like to move to the

9 formal comment period. And, Ron, it is all yours

10 MR. SKINNERLAND: Yes. I'm Ron Skinnerland with

11 the Washington State Department of Ecology. I want to express my

12 appreciation for coming back to Richland. And I understand Maria

13 Peeler talked on our behalf at the Portland meeting last night.

14 And the Department of Ecology will be providing a formal letter

15 and that will represent our final comments. So if there's any

16 confusion about, you know, what I'm saying tonight and what Maria

17 is saying in our final comments, our final letter, which will

18 come from our director in about two weeks, will take precedent.

19 The last time you came around our concerns were -- we were

20 interested in the Hanford cleanup and concerned about potential

21 for citing and constructing an operating facility to distract

22 from that in some way. And, you know, we are, you know, happy

23 with the alternative that's been selected. We think that based

24 on the criteria, the criteria identified like its location, you

25 know, its remote location, its existing waste operations, its,

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601-1

601-1

601-2

601-2

As stated in Chapter 4, Section 4.4.8, DOE continues to manage several ongoing programs and projects at Hanford in support of sitewide remediation. Neither construction nor operation of the proposed mercury storage facility is anticipated to impact resources (e.g., funding, labor, facilities, and equipment) associated with current and/or future site environmental restoration efforts.

DOE acknowledges the commentor's support for the identification of WCS as the Preferred Alternative for the long-term storage of elemental mercury. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

Comments from the Richland, Washington, Public Hearing (March 3, 2010)

Public Hearing

March 3, 2010

4

1 you know, not being near surface bodies of water and some of
2 those other factors that are identified in the EIS is a good
3 basis for picking that site. We remain concerned that at Hanford
4 we need to concentrate on the cleanup and want to be going ahead
5 with that.

6 Some of the things that Maria probably mentioned last night
7 was just our concern is if the facility doesn't go ahead that
8 we're not going to be providing a lot of detailed comments at
9 this point on the EIS. So we want to kind of reserve the right
10 that if for some reason the Texas site doesn't go ahead and the
11 Hanford site is then considered to provide more detailed comment
12 at that time. So I think our preference will be that we can
13 provide comment and we can do at another date on the EIS of some
14 kind. It can be abbreviated and we will try to clarify that in
15 our final letter.

16 I think that's basically all I wanted to say. I express
17 appreciation for you coming back and we'll be sending a letter in
18 about two weeks.

19 MR. PARRAM: Thank you, Ron.

20 Is there anyone that would like to provide additional
21 comments at this time? If not that will close our comment
22 period. Thank you for coming and we appreciate your attendance.
23 (End of Proceedings)

601-2
cont'd

601-1
cont'd

601-3

601-3

If operation of the DOE mercury storage facility(ies) is delayed beyond the January 1, 2013, date mandated in the Mercury Export Ban Act of 2008 (P.L. 110-414), mercury could continue to be safely stored at existing storage locations and generating facilities until the DOE storage facility(ies) is ready. However, if DOE decides to select WCS as the mercury storage site, an existing WCS building with an existing RCRA permit could be used to store mercury while a new building is being permitted and constructed. If the location selected in the ROD for this *Mercury Storage EIS* were to become unavailable, another candidate site could be selected in a revised ROD. DOE believes that this EIS would provide sufficient NEPA coverage for any such change. Based on preliminary site evaluation criteria and the analyses of potential impacts in Chapters 2 and 4 of this EIS, DOE believes that any of the candidate sites considered are suitable for the long-term storage of elemental mercury. Impacts were found to be none to minor at all sites; a summary of impacts is presented in Chapter 2, Table 2-1, of this *Mercury Storage EIS*.



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Comments from the Richland, Washington, Public Hearing (March 3, 2010)

Public Hearing March 3, 2010

CERTIFICATE

1 STATE OF WASHINGTON)
2) SP.
3)
4) COUNTY OF YAKIMA)

5

6 This is to certify that I, Jori L. Moore,
7 Certified Court Reporter and Notary Public in and for the State
8 of Washington, reported the within and foregoing deposition; said
9 deposition being taken before me as a Notary Public on the date
10 herein set forth, that the witness was first by me duly sworn;
11 that said examination was taken by me in shorthand and thereafter
12 under my supervision transcribed, and that same is a full, true
13 and correct record of the testimony of said witness, including
14 all questions, answers and objections, if any, of counsel.
15 I further certify that I am not a relative or employee or
16 attorney or counsel of any of the parties, nor am I financially
17 interested in the outcome of the cause.
18 IN WITNESS WHEREOF I have set my hand and affixed my seal
19 this _____ day of _____, 2010.

20
21
22
23 *Jori L. Moore*
24 JORI L. MOORE, RPR.
25 CCR NO. 1993
Notary Public in and for the State
of Washington
My Commission expires on October 9, 2012

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Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

1

U.S. DEPARTMENT OF ENERGY

DRAFT LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL
MERCURY

ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

MARCH 4, 2010

5:30 P.M.

NORTH AUGUSTA MUNICIPAL CENTER
100 GEORGIA AVENUE
NORTH AUGUSTA, SOUTH CAROLINA

LINDA ROBINSON, FACILITATOR

PANEL MEMBER:
DAVID LEVENSTEIN, U.S. DEPARTMENT OF ENERGY

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Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing	March 4, 2010
1	U. S. DEPARTMENT OF ENERGY
2	
3	LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL
4	MERCURY
5	ENVIRONMENTAL IMPACT STATEMENT
6	
7	FORMAL COMMENT SESSION PAGE LINE
8	
9	Lee Poe 3 1
10	Richard Geddes 4 7
11	Lee Poe 7 11
12	Richard Geddes 8 9
13	Lee Poe 8 10
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Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing

March 4, 2010

3

1 Lee Poe: I think since the DOE has
 2 been assigned the responsibility for this project
 3 that the EIS should include disposal, mercury
 4 disposal, not storage only, not short-term storage.
 5 Forty years is short-term. I think that that
 6 should happen, and I realize it's not in the draft,
 7 but it should be in the final EIS.

8 Another independent one. I think the
 9 EIS should consider equity for whoever is selected
 10 as the recipient of this responsibility.

11 I guess another one is, I have -- I'm
 12 still uncomfortable with hearing DOE come up
 13 with the -- they are picking up the responsibility
 14 for ten times the mercury that they now have, if I
 15 read that statement correctly, and that should be
 16 fairly very clearly elucidated.

17 I have one more comment, and that
 18 comment is, from listening tonight to the
 19 description of the accident analysis, I have to
 20 tell you, I question whether or not you've done an
 21 accident analysis. It sounds -- it sounds too much
 22 like an: Oh, yeah, that feels pretty good to me so
 23 let's just assume that it's acceptable.

24 I will go back and look, David, and I
 25 will -- I assure you that I will take the EIS CD

701-1 As described in Chapter 1, Section 1.3.1, and Chapter 2, Section 2.6.2, there currently is no EPA-approved method of treating high-purity elemental mercury for disposal, and it is not known when such a treatment method might become available. Therefore, when the mercury export ban takes effect on January 1, 2013, storage will be the only option for such elemental mercury wastes.

701-2 DOE acknowledges the commentor's concern about equity. DOE demonstrates commitment to equity throughout the EIS process: by involving the public in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to comment on it and by considering impacts at each of the seven potential mercury storage sites analyzed in this *Mercury Storage EIS*. As discussed in Chapter 2, Section 2.7, and presented in Table 2-1, environmental impacts were determined to range from none to minor and risks from negligible to low at all alternative sites.

701-3 DOE acknowledges the commentor's concern that the majority of elemental mercury projected to be available for storage in a DOE facility(ies) would, if fact, not be of DOE origin (see Chapter 1, Table 1-1). However, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) designates DOE to be the Federal agency responsible for the identification and operation of such a long-term storage facility. DOE has considerable experience and operation of such a long-term storage facility storing the mercury that is the subject of this *Mercury Storage EIS*.

701-4 The accident analysis is described in detail in Appendix D of this EIS. Results specific to SRS are presented in Chapter 4, Sections 4.8.9.2, 4.8.9.3, and 4.8.9.4, of this EIS.

Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing

March 4, 2010

4

1 that you gave me and look at the accident analysis.
2 I did not do that yet, but I would expect to find
3 that it doesn't quite treat as I think an EIS
4 should treat the accident analysis, the
5 consequences and the risks from these accidents.
6 Thank you.

7 RICHARD GEDDES: I've been inspired.
8 My name is Richard Geddes. I did sign the other
9 thing so you have the spelling and address out
10 there.

11 I have a few comments, a few short
12 comments, I guess. There is a law that gives DOE
13 the responsibility. Section five of that law
14 says -- the first sentence basically says: Not
15 later than January 1, 2010, the Secretary of Energy
16 shall designate a facility or facilities of the
17 Department of Energy for this purpose.

18 Well, my guess is the department says
19 it's okay to break the first part of that law, they
20 haven't met the January 1, 2010, and they consider
21 it okay the break the second part of that law, the
22 second part because I do not see that the Andrews,
23 Texas, or the Hawthorne sites meet the definition
24 of a facility of the Department of Energy.

25 I notice your slide up there. It

701-4
cont'd

702-1

702-1

DOE plans to designate a mercury storage facility(ies) by the end of 2010. DOE was not able to meet the January 1, 2010, deadline while meeting its commitment to conduct the selection process in an open manner that allowed for the appropriate level of public involvement. DOE is committed to have the storage facility(ies) operational and ready to accept mercury by January 1, 2013, as required by Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414). Footnote 4 in Chapter 2, Section 2.4, of this *Mercury Storage EIS* states that DOE has interpreted Section 5 of the Act to authorize DOE to designate an existing and/or new storage facility(ies) at property owned or leased by DOE. If a non-DOE site is selected, DOE would acquire an appropriate ownership or leasehold interest in that facility to comply with Section 5 of the Act.

Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing

March 4, 2010

5

1 says -- on several where you have the sites you say
2 five DOE sites, a commercial site and an Army site.
3 My comment is, I don't believe your selections
4 comply with the requirements of the law.

5 Also, you know that I had previously in
6 the earlier facility meeting, suggested that the
7 Department consider some buildings in the F area at
8 SRS, which I believe are the best existing
9 buildings in the country for this purpose. Looking
10 through the draft, I find some fine print buried
11 back there that says the Department says those
12 buildings are in use and not available.

13 Well, as I noted in my comments, they
14 are in use for some temporary storage for
15 construction supplies.

16 Now, these buildings are special
17 purpose buildings built to handle high density
18 materials, meet the protection requirements,
19 nonflammable. They meet your needs. There are
20 prior analyses for them. They have rail access, et
21 cetera, et cetera.

22 A higher and best use of these
23 buildings would be for the -- or the taxpayers'
24 investment would be for mercury storage, not for
25 some temporary storage of construction supplies.

702-1
cont'd

702-2

702-2

Chapter 2, Section 2.6.1, states that SRS Buildings 221-12F, 221-21F, and 221-22F in F Area were considered as potential storage sites for mercury. However, these buildings were previously committed to support the Mixed Oxide Fuel Program and thus are not available to support the long-term storage of mercury. Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) requires the DOE mercury storage facility(ies) to be operational and able to receive mercury by January 1, 2013. Therefore, even if these buildings were available for use after 2014, this would not meet the requirements of the Act.

Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing

March 4, 2010

6

In fact, I just happened to read the site's brand-new ten-year plan today, and it says those buildings have no further use and after 2014 they are scheduled to be demolished. So I do not think that's a valid answer that says they're not available for this purpose.

Let's see. In comparing your slides with the map on page three -- wait a minute -- slide three, the map of where mercury is, and slide seven of potential sites, you'll notice that SRS is a logical choice because the sources are in the east, SRS is in the east, and all the other sites are in the west, and for those of you who are concerned about transportation, the way to minimize risk in transportation is to locate it at SRS.

I'd also like to point out your slide nine, which says here's existing facilities. It says Idaho's got some, a couple other places. You fail to recognize that SRS has some. In fact, SRS has got the best facility -- existing facilities in the country.

Your comments about the 11/14 procedures on how to manage and surveil this material in storage, you would find those are almost identical to the way we have managed and

702-2
cont'd

702-3

702-3

Appendix D, Tables D-12 through D-14, of this Mercury Storage EIS shows that the predicted frequency of transportation accidents is not lowest at SRS. This is because the routes to SRS from gold mines in Nevada are relatively long. However, the predicted frequencies of transportation accidents vary by less than a factor of 1.5 among all of the sites, so this is not a strong discriminator among the alternatives. As described in the transportation risk sections of Chapter 4 and Appendix D of this EIS, DOE expects that there would be no fatalities from traffic accidents and that the risk to the public from transport accidents would be negligible to low for transportation to any of the candidate storage sites.

Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing

March 4, 2010

7
1 stored uranium in these same buildings for the last
2 50 years with weekly inspections, et cetera.

3 Again, just a final -- to summarize
4 that, SRS has facilities, has a history of managing
5 material like this. It's a preferred site from a
6 location standpoint and I dispute your choice of
7 Andrews, Texas, being a preferred site,
8 particularly when I don't believe it complies with
9 the law that requires it to be a DOE site. That's
10 all.

11 LEE POE: I guess I would like to --
12 and it's as much a question as anything else. Rick
13 kind of touched on it. Well, I don't know if it's
14 a question. If it is, then fine, we can do it at
15 the end, but if it needs to be a comment...

16 If I understood you correctly, Nevada
17 has the largest inventory of mercury at this point
18 in time. The question was: If it turns out that
19 Nevada has the bulk of the mercury then I think
20 Nevada ought to be considered as a location for
21 this facility, for this action, and that -- you
22 know, that's the -- you know, it depends on his
23 answer. If he tells me, I didn't say that, then
24 okay, I'll back away from Nevada because I couldn't
25 care less whether Nevada gets it or not.

702-4

702-4

DOE acknowledges the commentor's support for the long-term management and storage of elemental mercury at SRS and opposition to WCS. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

The issue raised by the commentor with respect to whether WCS complies with the Mercury Export Ban Act of 2008 (P.L. 110-414) is addressed in the response to Comment No. 702-1.

701-5

701-5

As described in the text box in Chapter 1, Section 1.3.1, the Defense Logistics Agency (DLA) plans to transfer 4,400 metric tons (4,900 tons) of elemental mercury to the Hawthorne Army Depot near Hawthorne, Nevada, for storage; this inventory of mercury is not included for analysis in this *Mercury Storage EIS*. On July 21, 2010, the Nevada Division of Environmental Protection, Bureau of Air Pollution Control, approved the transfer of a portion of DLA's mercury to Hawthorn Army Depot (Elges 2010). The known sources of mercury analyzed in this EIS are from chlor-alkali facilities and DOE's Y-12 mercury, which are from sources outside of Nevada. The other sources of potential mercury inventories (e.g., byproduct mercury and mercury from reclamation and recycling facilities) are projected over the next 40 years. As discussed in Section 1.3.1 and as presented in Table 1-1, the generation of byproduct mercury is projected to be between 3,700 and 4,900 metric tons (4,100 and 5,400 tons) over the next 40 years. Most of this byproduct mercury is projected to come from gold mining in Nevada. As described

Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing March 4, 2010

8

1 I will comment -- I'll make a comment
 2 now. DOE needs to be better about fulfilling their
 3 requirements than we have seen in this area. You
 4 know, we've got two or three things going on around
 5 here, and one that really sits in my craw mostly is
 6 high-level waste going to the Yucca Mountain. DOE
 7 has promised it and we spent billions of dollars to
 8 make that happen and all of the sudden we take --
 9 we give in to political pressure. That's what I
 10 mean.

11 Now, I think that's -- I think that's a
 12 travesty. Now, I would agree with Rick probably
 13 that storage at SRS might be good. With the DOE
 14 background that I've had with this thing, I don't
 15 think DOE can be trusted. So I'm expressing that
 16 concern on trust. You need to develop and build
 17 the trust.

18 We've also got the depleted uranium
 19 that Rick was talking about that we are one-third
 20 of the way sending it out there and all of the
 21 sudden they say, oh, we can't take it anymore.

22 RICHARD GEDDES: Get the waste control
 23 specialists out.

24 LEE POE: Yeah. So, you know, I'm
 25 concerned and I would oppose taking it to SRS if we

in Section 1.5.1 and Chapter 2, Section 2.4.4, storage of mercury at the Hawthorne Army Depot is considered in this *Mercury Storage EIS*.

701-6 Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414), "Long-Term Storage," directs DOE to designate a facility (or facilities) for the long-term management and storage of elemental mercury generated within the United States. Further, to comply with Section 5 of the Act, DOE needs to ensure the facility(ies) is operational and ready to accept custody of mercury by January 1, 2013. Decisions concerning the Yucca Mountain geologic repository project are not within the scope of this *Mercury Storage EIS*.

701-7 DOE acknowledges the commentor's statement that SRS might be a good site for the storage of mercury. DOE also acknowledges the commentor's statement with respect to developing trust with the local community. DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to participate. Throughout the *Mercury Storage EIS* process, DOE conducted a vigorous outreach program to inform the public and solicit input: 17 public meetings/hearings were held near the seven candidate mercury storage locations, and information was provided in the form of fact sheets, posters, and website postings. Toll-free fax, mail, and email were available for submitting comments and questions. All comments, both oral and written, were considered in completing this final EIS.

701-8 The disposition of depleted uranium is not within the scope of this *Mercury Storage EIS*.

702-5 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at WCS.

701-9 DOE acknowledges the commentor's opposition to the long-term management and storage of elemental mercury at SRS. DOE has prepared this *Mercury Storage EIS*, in which it fully analyzes the No Action and action alternatives in compliance with NEPA. Further, as noted in Chapter 2, Section 2.2, once a storage

Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing

March 4, 2010

9
1 don't have better understanding between the
2 stakeholders and DOE, and I'm just burned over
3 DOE's commitment to doing the right thing. So I
4 don't know how you'd write that as a comment,
5 but...
6 (The comments session was concluded at
7 7:13 p.m.)
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701-9
cont'd

facility is in place, it will be RCRA permitted and operated according to guidance presented in *Interim Guidance* (DOE 2009a), which establishes basic standards and procedures for the receipt, management, and long-term storage of mercury. This guidance is based on appropriate laws, regulations, DOE Orders, and best management practices.

Comments from the North Augusta, South Carolina, Public Hearing (March 4, 2010)

Public Hearing March 4, 2010

10

CERTIFICATE OF REPORTER

I, Angela D. Zuver, Court Reporter and Notary Public for the State of South Carolina at Large, do hereby certify that the foregoing transcript, pages 1 through 10, is a true, accurate, and complete record.

I further certify that I am neither related to nor counsel for any party to the cause pending or interested in the events thereof.

Witness my hand, I have hereunto affixed my official seal this 12th day of March, 2010 at Lexington, Lexington County, South Carolina.

Angela D. Zuver
 Angela D. Zuver, Court Reporter
 My Commission Expires
 July 2, 2014

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Comments from the Eunice, New Mexico, Public Hearing (March 8, 2010)

1

U.S. DEPARTMENT OF ENERGY
DRAFT LONG-TERM MANAGEMENT AND
STORAGE OF ELEMENTAL MERCURY
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

MARCH 8, 2010
5:30 P.M.

EUNICE COMMUNITY CENTER
1115 AVENUE I
EUNICE, NEW MEXICO

Facilitator: Linda Robinson

Panel Member:
William Levitan, U.S. Department of Energy

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Comments from the Eunice, New Mexico, Public Hearing (March 8, 2010)

Public Hearing

March 8, 2010

2

1 MS. ROBINSON: We have as our first
2 speaker tonight, Curtis Schrader, City Manager for
3 Eunice.

4 MR. SCHRADER: Thank you. I appreciate
5 the flexibility in the schedule, and I also appreciate
6 the fact that y'all are conducting this public hearing
7 here in Eunice. We consider WCS to be part of our
8 community, because we are the closest community to their
9 site. And even though, as Mr. Levitan mentioned, there
10 is a state border between us, we feel like they are as
11 much a part of our community as if they were here in New
12 Mexico and here closer to the city. We consider them a
13 good community partner. Many of their employees live in
14 our community. They do business with other companies
15 here in the city. Many of their employees come here to
16 Eunice to eat and to buy other goods and services, so we
17 appreciate them being a part of our community.

18 As far as comments, I definitely am
19 supportive of your preferred alternative. As I stated
20 at the public hearing in Andrews last summer, I am
21 confident that the decision that is made regarding
22 wherever the site is selected, whether it is WCS or one
23 of the other six sites, that good science and good data
24 and good facts will be used to make that decision. From
25 what I have seen in the draft EIS, I am still confident

801-1

801-1

Thank you for your comment. DOE is committed to communicating with the public and involving stakeholders in the decisionmaking process to ensure that potentially affected communities understand the proposed action and are given opportunities to participate. Throughout the *Mercury Storage EIS* process, DOE conducted a vigorous outreach program to inform the public and solicit input: 17 public meetings/hearings were held near the seven candidate mercury storage locations, including public hearings on the draft EIS in both Eunice, New Mexico, and Andrews, Texas. DOE considered all comments received from members of the public during the comment period on the draft EIS in preparing this final EIS.

801-2

DOE acknowledges the commentor's support for the identification of WCS as the Preferred Alternative for the long-term storage of elemental mercury and confidence in the thoroughness of the *Draft Mercury Storage EIS*. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

801-2

Comments from the Eunice, New Mexico, Public Hearing (March 8, 2010)

Public Hearing

March 8, 2010

3

1 that is going to happen.

2 We have many facilities that are located
3 here in Southeast New Mexico and West Texas, and a lot
4 of the same reasons that you have listed for choosing
5 Andrews County were also reasons why other facilities
6 have been located here, and that is again due to good
7 science and good data and good facts. And I am
8 confident that is going to continue to be the process,
9 and, if WCS is still the selected site and it is
10 something they still want to do, I am confident that the
11 mercury is going to be transported, stored and monitored
12 in a safe and effective way that is not going to impact
13 us or them. Thank you.

14 MS. ROBINSON: Thank you, Mr. Schrader.
15 Can you all hear me in the back? Okay. We are going to
16 go back to our normal order. And so now this is not
17 going to be on the record from now on, until I tell you
18 again.

19 (Discussion off the record.)

20 MS. ROBINSON: We will first have the
21 mayor of Eunice to give his first comments, Matt White.

22 MR. WHITE: Thank you very much for being
23 here tonight. I appreciate that. I appreciate you
24 holding the meeting here. We were very concerned about
25 the issue just because we wanted the local citizens to

801-2
cont'd

801-3

801-3

DOE acknowledges the commenter's statement of confidence that the mercury would be safely transported, stored, and monitored at WCS. Transportation of mercury would be in accordance with applicable RCRA hazardous waste and U.S. Department of Transportation hazardous materials shipping requirements. As discussed in Chapter 5, Section 5.2.4, the Mercury Export Ban Act of 2008 (P.L. 110-414) stipulates that elemental mercury managed and stored at a DOE-designated facility(ies) is subject to the requirements of RCRA's hazardous waste provisions. The storage facility would be operated in accordance with all applicable regulations and the hazardous waste storage permit issued by the host state.

Comments from the Eunice, New Mexico, Public Hearing (March 8, 2010)

Public Hearing

March 8, 2010

4

1 be able to express their own concerns and ask questions.

2 I would like to say that WCS has always
 3 been very open with us. They have worked very closely
 4 with the city on all concerns, and we support -- I
 5 support this project. I can't speak for all of the
 6 citizens, but I speak for myself. I do support this
 7 project.

8 We have done a lot of research on the LES
 9 and WCS on ground water and all the hazardous
 10 environments, and I agree with my City Manager on sound
 11 science. Everything I have seen is it has always been
 12 very up front, and they have always told us exactly what
 13 is going on. So I do appreciate the meeting tonight and
 14 thank you for your answers.

15 MS. ROBINSON: Thank you, Mayor. And I
 16 didn't name the second person. Next will be Peggy
 17 Pryor, who will be followed by Rose Gardner. So Peggy
 18 Pryor. No, you wish not to? Rose, this is your
 19 surprise time. You are welcome to read your comments.

20 MS. GARDNER: "After reading the draft EIS
 21 on the storage of elemental mercury, it is apparent that
 22 the DOE has already made its decision on this matter.

23 The preferred alternative being WCS as identified in the
 24 draft is disappointing but not unexpected. Two of the
 25 six factors noted on Page 24 of the Summary particularly

802-1

DOE acknowledges the commentor's support of DOE's identification of WCS as the Preferred Alternative for the long-term management and storage of elemental mercury.

803-1

803-1

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

803-2

DOE acknowledges the commentor's statements that the remoteness of a location and population density are relative concepts to the families residing in proximity to a particular facility. As discussed in Chapter 1, Section 1.5.1, of this *Mercury Storage EIS*, the selection criteria for candidate mercury storage sites did not require that the location be remote and sparsely populated, although these are desirable attributes in terms of transportation access and minimizing land use conflicts. Regardless of the site chosen, DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414).

803-1

803-2

Comments from the Eunice, New Mexico, Public Hearing (March 8, 2010)

Public Hearing

March 8, 2010

5

1 stand out to me: remote location and low population
 2 density in surrounding area. The plant is remote to
 3 Dallas and San Antonio, Texas, but it is only six miles
 4 from where I live. And I have family that live a few
 5 hundred feet from the Highway 18 intersection, about
 6 three miles east of the site. So it is not remote from
 7 people at all. The factor listed as low population
 8 density in the surrounding area is probably correct, but
 9 when it is your family living there, their lives are as
 10 important as those in a moderate or high density
 11 population in proximity to the risk and dangers
 12 associated with the WCS plant and the LES/URENCO plant
 13 right down the street. The dangers of elemental mercury
 14 are listed in the draft. My objections relative to this
 15 storage option continue to be in respect to the safety
 16 and well-being of my family and the community of Eunice.
 17 One could almost interpret these factors as a way of
 18 saying we are expendable in case of an accidental
 19 release at the site. I would never have believed that
 20 my community would be known as a home to a hazardous
 21 waste dump and a nuclear waste dump, but that is what
 22 has happened to Eunice. Not only are we subjected to
 23 the pollutants in our air because of the oil and natural
 24 gas production, now we will have to contend with
 25 possible spills or accidents involving transportation of

803-3

DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. DOE believes that the historical record of mercury storage and transportation activities at Y-12 and at the sites where the U.S. Department of Defense has stored elemental mercury for many decades proves that elemental mercury can be handled in such a way that the safety of the surrounding communities is not compromised. Discussion of this historical record may be found in Appendix D, Section D.4.1, of this *Mercury Storage EIS*. As described in Chapter 4, Section 4.9.9, of this EIS, risks to the public near WCS from normal operations and mercury storage facility accidents would be negligible. Risks from transportation of mercury would be negligible to low.

803-4

This *Mercury Storage EIS* contains a detailed transportation analysis that shows, even with conservative assumptions, that the risks to individuals from transportation of elemental mercury are negligible to low. Transportation of mercury would be in accordance with applicable RCRA hazardous waste and U.S. Department of Transportation hazardous materials shipping requirements.

803-2
cont'd

803-3

803-4

Comments from the Eunice, New Mexico, Public Hearing (March 8, 2010)

Public Hearing

March 8, 2010

6

1 oil and oil byproducts, hazardous waste of all kinds,
2 nuclear waste and now mercury transportation by truck
3 and rail. Last year there was a train derailment near
4 here. I truly hope that all citizens on the road to Lea
5 County and Andrews County stake extra care when
6 traveling. People make mistakes. Accidents do happen."

7 MS. ROBINSON: Thank you, Ms. Gardner. I
8 notice it was written, so if you would be willing to
9 turn it in, that would help the court reporter. There
10 were no other people signed up tonight. Does anyone
11 feel they have a comment to give? Okay. Well, I
12 appreciate you all coming.

803-4
cont'd

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Comments from the Eunice, New Mexico, Public Hearing (March 8, 2010)

Public Hearing March 8, 2010

1 THE STATE OF TEXAS)
 2 COUNTY OF ECTOR)
 3
 4 I, Debra Guthrie, Certified Shorthand Reporter Number
 5 3910 for The State of Texas, do hereby certify that the
 6 above and foregoing pages contain a full, true and
 7 correct computer-assisted transcription of my
 8 computerized stenotype shorthand notes taken on said
 9 occasion.
 10 I further certify that I am neither counsel for, related
 11 to, nor employed by any of the parties or attorneys in
 12 the action in which this proceeding was taken, and
 13 further that I am not financially or otherwise
 14 interested in the outcome of the action.
 15 Witness my hand this 16th day of March, 2010.
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 22
 23
 24
 25

Debra D. Guthrie

DEBRA GUTHRIE, CSR
 CSR No. 3910 - Expires 12/31/10
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Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

1

U.S. DEPARTMENT OF ENERGY

DRAFT LONG-TERM MANAGEMENT AND
STORAGE OF ELEMENTAL MERCURY
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING
MARCH 9, 2010
5:30 P.M.

James Roberts Civic Center
855 E. Broadway
Andrews, Texas

Facilitator: Linda Robinson

Panel Member:
William Levitan, U.S. Department of Energy

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Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing	March 9, 2010	
1	U.S. Department of Energy	2
2	Long-Term Management and Storage of Elemental Mercury	
3	Environmental Impact Statement	
4		
5		
6	FORMAL COMMENT SESSION	
7		PAGE LINE
8	Karen Hadden	3 4
9	Tom "Smitty" Smith	7 7
10	Peggy Pryor	11 15
	Melody Pryor	13 8
	John Parish	15 12
11	Karen Hadden	16 5
	J. Garza	17 1
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Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

3

1 MS. ROBINSON: I am going to now start
2 calling on commentors. The first one will be Karen
3 Hadden, followed by Tom "Smitty" Smith. Karen Hadden.
4 MS. HADDEN: Good evening. My name is
5 Karen Hadden. I am here representing a statewide
6 organization, the SEED Coalition, which stands for
7 Sustainable Energy and Economic Development Coalition.
8 We have for years had serious concerns
9 about mercury and the impacts on human beings, wildlife
10 and agriculture.

11 Earlier this evening, during question and
12 answer you heard from Tom "Smitty" Smith, and he was
13 talking about the coal burning power plants. We in
14 Texas have already been, unfortunately, the number one
15 worst state in the nation for mercury pollution. It is
16 toxic. And we know for a fact that exposure to mercury
17 can impact the brains of any human, and is especially a
18 problem for young children and developing babies.

19 We know that East Texas is basically
20 suffering intensely. There are studies that show
21 correlations with autism in that part of the state. We
22 have worked hard as an organization to try to get
23 clean-up of this mercury, and it is incredibly
24 frustrating when other states are making reductions, but
25 Texas has not done so.

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Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

4

1 To see the DOE come in and even suggest
 2 that Texas should be the dumping ground for more toxic
 3 mercury is infuriating. I don't understand why Texas
 4 should be seen as a national dump. I think it is a good
 5 idea to bring mercury together, to pull it out of
 6 circulation. That is a good effort.

7 But you have in your draft EIS a no-action
 8 scenario. That is the action that you should take.
 9 That leaves the military mercury exactly where it is.
 10 And there is nothing, no single thing that says that
 11 that Mercury has to move. There is no reason to put it
 12 on the highway and risk people's health all the way from
 13 Oakridge, Tennessee or from any other site.

14 Earlier you talked about the number of
 15 shipments that would come in. They might average out to
 16 be the same, whether mercury comes here or goes
 17 somewhere else, but for this community the number of
 18 shipments goes through the roof. For this community the
 19 risk goes sky high.

20 I am offended that there could be talk of
 21 bringing 11,000 tons of toxic mercury to Texas, and that
 22 the words negligible impacts can even be used in the
 23 draft EIS. And I would like to talk to you a little bit
 24 about why.

25 First of all, this area is an area that is

901-1

DOE acknowledges the commentator's opposition to the identification of WCS as the Preferred Alternative for the long-term storage of elemental mercury. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*. The proposed action is the management and storage, not disposal, of elemental mercury. Further, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The guidance is based on laws, regulations, DOE Orders, and best management practices (see Chapter 2, Section 2.2). Implementation of the *Interim Guidance* would ensure that mercury is stored in such a manner as to protect the environment, workers, and the general public.

901-2

DOE acknowledges the commentator's support for the Mercury Export Ban Act of 2008 (P.L. 110-414) and the creation of a long-term storage facility for elemental mercury wastes.

901-3

DOE acknowledges the commentator's support for the No Action Alternative. However, this *Mercury Storage EIS* does not address the storage of military mercury. Mercury presently stored at Y-12 is owned by DOE. Of the 10,000 metric tons (11,000 tons) of mercury that may require storage in a DOE facility, most would be from commercial and private industry sources. Please see the *Final Mercury Management Environmental Impact Statement* prepared by the Defense Logistics Agency, Defense National Stockpile Center, for a discussion of U.S. Department of Defense mercury (DLA 2004).

The Mercury Export Ban Act of 2008 (P.L. 110-414) requires DOE to designate a facility (or facilities) for the long-term management and storage of mercury generated within the United States. The Act specifically excludes Y-12 from consideration for a new mercury storage facility (see Chapter 1, Section 1.2); however, as the commentator implies, it does not require DOE to ship mercury presently at Y-12 to a new storage facility. Accordingly, as stated in Chapter 1, Section 1.3.1, either the entire inventory of Y-12 mercury or a portion of this inventory could be retained in storage at Y-12, but, for purposes of analysis,

901-1

901-2

901-3

901-4

901-5

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing March 9, 2010

5
 1 three counties here, 40 percent minority, 17 percent
 2 poverty. I think you have a serious environmental
 3 justice issue that is not being addressed.
 4 In terms of health impacts, the EPA talks
 5 about elemental mercury and says it can be absorbed
 6 through the lungs. Others testify about what happens if
 7 there is a drip spill and HAZMAT teams have to come in.
 8 It is a problem they note in warm areas. It is a little
 9 bit warm here.
 10 Exposure can result in tremors, emotional
 11 changes, mood swings, irritability, nervousness,
 12 insomnia, neuromuscular changes, weakness, muscle
 13 atrophy, twitching, headaches, disturbances in
 14 sensation, changes in nerve responses, performance
 15 deficits and cognitive function. That is at low levels
 16 and chronic levels. Workers who work there could be
 17 exposed, especially if you have got microdots condensing
 18 on these containers.
 19 Higher exposure, kidney effects,
 20 respiratory failure, death. There is a reason why you
 21 have to call in HAZMAT teams and evacuate a whole wing
 22 of a science lab in El Paso. We are talking 11,000
 23 tons.
 24 People concerned about exposure are
 25 supposed to contact their physician. Will anyone, if

the entire inventory was assumed to be sent to the new DOE mercury storage facility(ies). Elemental mercury is transported regularly within commerce today; this action is not expected to significantly change the amount of mercury transported within the United States.

901-4

DOE acknowledges the commentor's statement about mercury shipments and the perception of risk. The number of shipments would be the same for WCS as all other candidate sites. Under Truck Scenario 2 (half-loads), the average would be about 31 trucks per year over 40 years. The risk assessment in this *Mercury Storage EIS* is a good-faith effort to use what is known about the physical and chemical properties of mercury, and the conditions under which it would be stored or transported, to provide conservative estimates of risk. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. Also, in accordance with Section 5 of the Act, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). DOE has a long history of safely handling mercury in 3-liter (34.6-kilogram [76-pound]) flasks over many decades. As described in Chapter 4, Section 4.9.9.3, of this EIS, no traffic fatalities are expected, and the risks to the public from the release of mercury from a serious transportation accident would be negligible to low.

901-5
 cont'd

Chapter 3, Section 3.8.11, of this *Mercury Storage EIS* describes the existing distribution of minority and low-income populations within 16 kilometers (10 miles) and 3.2 kilometers (2 miles) of WCS. Chapter 4, Section 4.9.11, presents the analysis of potential environmental justice impacts, that is, the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations. As stated in Section 4.9.11, only one of the eight census block groups within the 16-kilometer (10-mile) radius of WCS contains a minority population. Based on this analysis and the public health and safety analysis presented in Section 4.9.9, implementing the WCS alternative would result in negligible offsite human health risks from mercury emissions during normal operations and facility accidents and negligible-to-low human health risk from transportation accidents, with no disproportionately high and adverse effects on minority or low-income populations.

901-5

Chapter 3, Section 3.8.11, of this *Mercury Storage EIS* describes the existing distribution of minority and low-income populations within 16 kilometers (10 miles) and 3.2 kilometers (2 miles) of WCS. Chapter 4, Section 4.9.11, presents the analysis of potential environmental justice impacts, that is, the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations. As stated in Section 4.9.11, only one of the eight census block groups within the 16-kilometer (10-mile) radius of WCS contains a minority population. Based on this analysis and the public health and safety analysis presented in Section 4.9.9, implementing the WCS alternative would result in negligible offsite human health risks from mercury emissions during normal operations and facility accidents and negligible-to-low human health risk from transportation accidents, with no disproportionately high and adverse effects on minority or low-income populations.

901-6

Chapter 3, Section 3.8.11, of this *Mercury Storage EIS* describes the existing distribution of minority and low-income populations within 16 kilometers (10 miles) and 3.2 kilometers (2 miles) of WCS. Chapter 4, Section 4.9.11, presents the analysis of potential environmental justice impacts, that is, the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations. As stated in Section 4.9.11, only one of the eight census block groups within the 16-kilometer (10-mile) radius of WCS contains a minority population. Based on this analysis and the public health and safety analysis presented in Section 4.9.9, implementing the WCS alternative would result in negligible offsite human health risks from mercury emissions during normal operations and facility accidents and negligible-to-low human health risk from transportation accidents, with no disproportionately high and adverse effects on minority or low-income populations.

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

6

1 workers are out there, provide them monthly testing of
2 their blood levels of mercury and a doctor of their
3 choice and pay for it? I wonder if that would ever
4 happen.
5 Mercury exposure can cause hand tremors,
6 memory disturbance, inhalation reference concentrations.
7 It can change the speed at which motor and sensory
8 nerves conduct their impulses.

9 Animal studies have shown that inhalation
10 exposure on rats, rabbits, monkeys was worse for
11 elemental mercury from inhalation than if they were
12 injected with Mercury directly into their blood stream.
13 10 times higher. And yet in the environmental impact
14 statement, you characterize the concentrations and risks
15 from all on-site mercury from S11, severely level one to
16 two negligible to low. Well, that might be; if you live
17 20 miles away, it might be negligible or low. But if you
18 are a worker in that building, I would say your risk is
19 incredibly high, especially if there are fires. There
20 is no full-time paid professional fire department in
21 this county, and the system in the building may or may
22 not be adequate to contain a fire and to stop the
23 inhalation.

24 DOE would only provide seven jobs for
25 seven years and then five. Why not -- why is the DOE

901-6

DOE has incorporated the most up-to-date understanding of the health effects of mercury into this *Mercury Storage EIS*. Health effects from exposure to elemental mercury, inorganic mercury, and methylmercury are summarized in Appendix D, Sections D.3.1, D.3.2, and D.3.3, respectively. These summaries are taken from authoritative sources, such as EPA's seminal *Mercury Study Report to Congress*, published in 1997 (EPA 1997). DOE acknowledges that exposure to mercury can cause health effects such as those described by the commentator. DOE has therefore performed a risk assessment using severity levels that reflect the best guidance of bodies such as EPA, the Occupational Safety and Health Administration, the National Institute for Occupational Safety and Health, and the American Conference of Governmental Industrial Hygienists to determine what levels of exposure would lead to such responses as potential fatality, irreversible health effects, reversible health effects, and negligible-to-low health effects. These levels have been combined with a systematic and careful assessment of the frequencies of various possible accidents (see Sections D.2.4 through D.2.10) and their consequences (see Sections D.4.2 through D.4.5) to assess the risks associated with a wide spectrum of possible accidents. DOE stands by the analysis that shows that risks from accidents on site are all negligible to low for both workers and the public (for example, see Table D-27) and that risks to the public from transportation fires are low (see Table D-31). DOE also considered the possibility of fires in the storage building and concluded that their frequency (and hence corresponding risk) is negligible. Several factors contribute to this conclusion: (1) forklifts would be electric, so they would not provide a source of fuel for a fire; (2) there would be no fuel lines or fuel storage vessels inside the mercury storage building; (3) there would be no flammable materials in the construction of the building; (4) administrative controls would limit the amount of flammable material kept in the building; (5) the wooden pallets that contain the mercury flasks would be treated with fire-retardant coatings; and (6) there would be a fire suppression system in place.

Section 5.2 of the *Interim Guidance* (DOE 2009a) addresses the standards and procedures related to "Personnel Safety." This guidance is based on appropriate laws, regulations, DOE Orders, and best management practices. Specifically, Sections S5.2.3 and S5.2.4 discuss "Requirements for the DOE Worker Health and Safety at an Elemental Mercury Storage Facility" and "Reporting on Health and Safety," respectively. As stated, medical and exposure monitoring records shall be maintained and communicated to employees per Occupational Safety and Health Administration requirements. Medical surveillance may include testing the blood for changes in total inorganic mercury levels.

901-6
cont'd

901-7

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

1 not here bringing clean, safe energy technologies that
 2 would create jobs in this community and instead bringing
 3 toxic waste and urging it be dumped here in Texas? We
 4 don't buy it.

5 MS. ROBINSON: Thank you, ma'am. The next
 6 speaker is Tom "Smitty" Smith, followed by Peggy Pryor.

7 MR. SMITH: Good evening. Again, for the
 8 record, my name is Tom Smith. I have a real fundamental
 9 problem with this, because it basically requires us to
 10 trust the government and trust that your analyses and
 11 your standards are adequate. And I wish I believed
 12 that. I used to believe that a long time ago, until we
 13 started to look at the evidence, standards you and your
 14 sister agencies have promulgated over the last 40 years,
 15 which is the lifetime you expect these site disposals to
 16 be in effect.

17 We have been told don't worry, mercury
 18 won't contaminate the water from our coal plants. The
 19 disposal system from the waste from the coal-burning
 20 coal won't leak. That mercury won't affect air quality.
 21 We know what we are doing. We have equipment on those
 22 stacks to protect us. That mercury won't affect our
 23 public health. And it is appropriate now with Alice in
 24 Wonderland that is coming out that we reflect on the
 25 fact that the Mad Hatter was told by his employers,

901-7

901-7
cont'd

DOE acknowledges the commentator's statement about job creation. As discussed in Chapter 4, Section 4.9.1.1, of this *Mercury Storage EIS*, locating a new mercury storage facility at WCS would create approximately 18 temporary construction jobs and 5 to 8 jobs to support facility operations. Although outside the scope of this EIS, DOE acknowledges the commentator's interest in alternative and clean energy sources.

902-1

DOE acknowledges the commentator's opposition to the long-term management and storage of elemental mercury and lack of trust in the Federal Government. DOE believes that its analysis of the No Action and action alternatives presented in this *Mercury Storage EIS* is a fair and thorough evaluation. Further, as noted in Chapter 2, Section 2.2, once a storage facility is in place, it will be RCRA regulated and permitted and operated according to guidance presented in *Interim Guidance* (DOE 2009a). This guidance is based on appropriate laws, regulations, DOE Orders, and best management practices.

902-2

DOE acknowledges the commentator's statements regarding historical uses of mercury, mercury emissions to the air, and human health effects. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. As described in Chapter 2, Section 2.3.2, and Chapter 4, Section 4.9.3.1, of this *Mercury Storage EIS*, best management practices, including the use of spill trays under mercury containers, spill containment features, and regular inspections, would be employed at all candidate sites to prevent spills and releases. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility(ies). Chapter 4, Section 4.9.4.2, specifically describes the potential impacts on air quality from siting a mercury storage facility at WCS. Facility construction or modification and routine operations would have negligible-to-minor impacts on air quality, and air pollutant emissions are not expected to exceed air quality standards. Small amounts of mercury vapor emitted

902-2

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

8

1 don't worry, the Mercury you are putting on those hats
2 won't affect your mind either. And that lastly, we will
3 clean up the mess that is made if something goes wrong.
4 The message I have is we simply can't and
5 don't trust you. As one person in my office said, this
6 is sort of Obama's way of paying back Texas for sending
7 George Bush to Washington, isn't it?

8 Who is going to be liable for this mess if
9 there is a leak? WCS? Do they have the pockets deep
10 enough to clean up, or are they a limited liability
11 corporation? How long will their site lease last? How
12 long will your site lease last? And will you ultimately
13 be responsible for cleaning up the mess that is made? I
14 think you should have the people downstream from the Red
15 River Army Depot or around Ft. Comfort when you all
16 settled and said we have a site plan to clean up the
17 mercury emitted by Aluminum Alcoa down there and we will
18 get that cleaned up for you.

19 If you are not here, then will the State
20 of Texas be responsible, and can we trust them? I don't
21 think so. They have never appropriated a dime to clean
22 up the messes that they are responsible for. That
23 leaves the folks in Andrews County to be responsible, if
24 there is a leak, to clean that up, and will the good
25 taxpayers be able to afford that? I don't think so.

**902-2
cont'd**

902-3

during normal facility operations would have a negligible effect on workers and the public, with a negligible risk to human health. Mitigation measures are presented in Section 4.12 of this EIS.

DOE acknowledges the commentor's concerns regarding WCS lease arrangements and the financial responsibility for any releases to the environment. As described in Chapter 1, Section 1.6, of this *Mercury Storage EIS*, Section 5 of the Mercury Export Ban Act of 2008 (P.L. 110-414) authorizes DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility(ies) to cover certain costs of long-term management and storage. These costs include operations and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable laws. Section 5 of the Act states that such costs shall not include costs associated with land acquisition or permitting. Therefore, much of the costs of mercury storage will be borne by the generators of mercury. In addition, the generators of the mercury will be responsible for the costs of shipping mercury to the DOE storage facility(ies). The incentive for generators to send their mercury to the DOE facility(ies) is that DOE would take ownership of the mercury and indemnify the generators from future liability, as stated in Section 1.2 of this EIS. Therefore, DOE would be responsible (financially and otherwise) for its long-term management, which would encompass the costs associated with environmental restoration should a leak occur. However, the U.S. Congress and the President are responsible for determining year-to-year funding priorities for Government programs. DOE spends funds in accordance with congressional intent. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations. If a non-DOE site, such as WCS, is selected, DOE would acquire an appropriate ownership or leasehold interest to comply with Section 5 of the Act. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*.

902-3

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing March 9, 2010

9
 1 What is the monitoring plan? You are
 2 within 10 miles, but what happens if it does get into
 3 the Ogallala? And why is it that folks who looked at
 4 this permit for the radioactive waste site quit, and all
 5 of the people who worked on that radioactive site permit
 6 said we don't think this is a good idea because they
 7 have unanswered doubts.
 8 You have said don't worry, we have looked
 9 at the studies. I have looked at the studies that you
 10 referenced in your document here on pages 3139 and 3140,
 11 and the studies you all reference are WCS studies.
 12 Excuse me. I'm not sure if that is a
 13 basis for making a sound scientific analysis on the
 14 applicant's studies.
 15 You reference in here, however, that there
 16 are (inaudible) that could well be affected, and there
 17 are old Water Development Board studies that say this
 18 site is over the Ogallala.
 19 You say there are 500 wells on this site,
 20 and I believe that is probably true. WCS's own studies
 21 indicate that there is water. Their own reports to the
 22 TCU indicate there is water within 14 feet of some of
 23 those wells. Maybe not underneath yours. But we
 24 haven't seen that analysis of how close that ground
 25 water is in this document. And certainly if they had

902-4 DOE acknowledges the commenter's concerns regarding environmental monitoring and responsibility for releases to groundwater. See the response to Comment No. 902-2 with regard to environmental liability. With regard to the potential for releases to groundwater, Chapter 4, Section 4.9.3.1, of this *Mercury Storage EIS* notes that the design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility. At this time, DOE anticipates that monitoring would be conducted during regular inspections of the mercury containers to ensure that no containers are corroding or leaking and testing the airspace of the mercury storage facility for elevated concentrations of mercury vapors. However, the mercury storage facility would be subject to any additional monitoring requirements imposed under a state-issued RCRA permit that would govern facility operations and would be protective of human health and the environment.

902-5 This *Mercury Storage EIS* does not address radioactive waste. As discussed in Chapter 5, Section 5.2.4, the Mercury Export Ban Act of 2008 (P.L. 110-414) stipulates that elemental mercury managed and stored at a DOE-designated facility(ies) is subject to the requirements of RCRA's hazardous waste provisions. The storage facility would be operated in accordance with all applicable regulations and the hazardous waste storage permit issued by the host state. Furthermore, operation of a DOE mercury storage facility located at WCS would be independent of other site waste operations, and the long-term DOE storage facility would be specifically designed for the storage of mercury.

902-6 DOE and its contractors have independently reviewed and evaluated the available information in preparing this *Mercury Storage EIS*. DOE and most Federal and state agencies do not conduct their own environmental studies for use in EISs. Rather, they rely on studies prepared by independent, reputable sources from government, academia, and industry. Many of these studies are prepared by professionals that

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

10
 1 made the representations as they did, that there is no
 2 water under this within this entire site, and they were
 3 starting to get water within 14 feet of their monitoring
 4 wells, it would set off alarm bells that we think ought
 5 to be referenced in your studies to determine if this is
 6 an environmentally sound site. I'm sorry if I am a
 7 little skeptical of the depth of that analysis, as I am
 8 the depth of the water table.

9 You stated you should only look at 10
 10 miles to determine what the impact would be. As I
 11 mentioned earlier, we are seeing mercury vapors coming
 12 from China, according to the EPA. We are being told
 13 don't worry, it won't affect the people in Lubbock,
 14 Midland, Odessa or Andrews, because those mercury vapors
 15 won't ever blow that far. Somehow I don't buy that.

16 You also say don't worry about tornados.
 17 The image of tornados picking up mercury vials and
 18 throwing them around is hard to believe, yet I saw in
 19 your own studies there have been 21 tornados in this
 20 area in the last 42 years. That is a high number of
 21 tornados to totally ignore and have nothing more than
 22 the reference that says there have been that many
 23 tornados, and yet no real analysis of the impact of
 24 that.

25 You know, we in Texas have trusted the

maintain state licenses in their areas of study, including professional engineers and certified professional geologists. These professionals certify the accuracy of the documents they prepare under the penalty of law.

DOE believes that it has adequately described the existing environment at WCS, including environmental conditions with regard to site geology and groundwater, as presented in Chapter 3, Sections 3.8.2.1 and 3.8.3.2, of this EIS. The proposed long-term mercury storage facility would be located, designed, and built in accordance with local building codes, and design factors to mitigate potential impacts on natural site conditions would be considered. A geotechnical study would be conducted to confirm site geologic and hydrogeologic characteristics for facility siting and engineering purposes, as noted in Chapter 4, Section 4.9.2.1, of this EIS.

See response to Comment No. 902-5. Chapter 3, Section 3.8.3.2, of this *Mercury Storage EIS* summarizes existing groundwater conditions at WCS, based on relevant information obtained and reviewed by DOE. This material includes documentation from the *Application for License to Authorize Near-Surface Land Disposal of Low-Level Radioactive Waste*, which was prepared by Cook-Joyce, Inc., Intera, Inc., URS Corporation, and Washington Group, Inc., for Waste Control Specialists, LLC (WCS 2007). Note that this is the document submitted to the Texas Commission on Environmental Quality and used by that agency for the issuance of the license to construct and operate WCS. Thus, use of this material is considered appropriate for the analysis undertaken in this EIS. As described in Chapter 4, Section 4.9.3.2, construction of a mercury storage facility at WCS is not expected to affect groundwater due to the depth to groundwater and shallow depth of excavation (i.e., less than 1.2 meters [4 feet]). No mercury would be stored below ground level. Finally, for the reasons stated in Appendix D, Section D.2.4, groundwater was not considered a credible pathway for potential accidental release of elemental mercury from a mercury storage facility. Also, as summarized in Section 4.1.1.1, impacts on water resources and waste management from constructing and operating a mercury storage facility were projected to be negligible; therefore, these resource areas were not considered further in the context of cumulative impacts at WCS. A geotechnical study would be conducted to confirm site geologic and hydrogeologic characteristics for facility siting and engineering purposes. This would include determination of the depth to groundwater beneath the mercury storage facility.

902-7
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902-7

902-8

902-9

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

11

1 federal government to protect us from a number of
 2 things, and have been let down because the analyses done
 3 by your predecessors were inadequate when there was some
 4 sort of federal emergency. And I think that this is
 5 another one where Congress has gotten on its high horse
 6 and said we need to do something about mercury, and
 7 given you an entirely too short a time to adequately
 8 analyze it. And we are setting ourselves up for the
 9 same kind of failure seen in the long history of the
 10 government telling us don't worry about mercury, it is
 11 safe and we know what we are doing. Thank you for your
 12 time.

13 MS. ROBINSON: Thank you, sir. The next
 14 speaker is Peggy Pryor.

15 MS. PRYOR: I'm disappointed in the DOE as
 16 well. I thought you were an organization who would
 17 actually have people who would do the studies yourself,
 18 not rely on other papers, other studies. I can do that.
 19 That is what they have told me over and over and over
 20 again. I can do that. I could have done what you have done,
 21 but I wanted you to do an independent study. That is
 22 all I asked, for you to do an independent study, to look
 23 into these, to actually address each one. You did not.
 24 Your EIS spoke what you wanted done. And
 25 Mr. John, if I had just listened to him the first time I

902-8

The human health risk assessment performed for WCS for normal facility operations, accidents, and transportation sets no limit on the distance to which the impact would be determined. This assessment is documented in Chapter 4, Section 4.9.9, of this *Mercury Storage EIS*. Section 4.9.4.2 describes the potential impacts on air quality from siting a mercury storage facility at WCS. Amounts of mercury vapor anticipated to be emitted during normal facility operations would have a negligible effect on workers and the public, with a negligible risk to human health. A 16-kilometer (10-mile) radius centered on each candidate mercury storage site was used as the basis for the environmental justice analysis to identify minority and low-income populations residing in proximity to each site, as described in Appendix B, Section B.11.1, of this EIS.

902-10

902-9

This *Mercury Storage EIS* considered the historical records of tornadoes in the counties surrounding WCS and used those records to estimate the frequency with which tornadoes of a sufficient severity to damage the mercury storage facility might strike it. See Appendix D, Table D-6, and the accompanying discussion. The result of that analysis was a frequency of about once in 5 million years. The conclusion of the tornado discussion is that the tornado risk is bounded by the earthquake risk. The earthquake risk is discussed in considerable detail in Sections D.2.5.2 and D.4.2.4.

902-10

DOE acknowledges the commentator's concerns about the schedule specified in the Mercury Export Ban Act of 2008 (P.L. 110-414). DOE believes that this *Mercury Storage EIS* provides sufficient information to support a decision regarding a location for a DOE elemental mercury storage facility(ies). In addition, in its Federal review capacity, EPA rated this EIS "LO (Lack of Objections)," the highest rating.

903-1

DOE and its contractors have independently reviewed and evaluated the available information in preparing this *Mercury Storage EIS*. DOE and most Federal and state agencies do not conduct their own environmental studies for use in EISs. Rather, they rely on studies prepared by independent, reputable sources from government, academia, and industry. Many of these studies are prepared by professionals that maintain state licenses in their areas of study, including professional engineers and certified professional geologists. These professionals certify the accuracy of the documents they prepare under penalty of law.

903-2

Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

12

1 spoke with him, and I kept asking him over and over and
 2 over, are you trying to convince me that this is the
 3 place that you want? Oh, no, no, I'm not telling you --
 4 yes, I should have listened.

5 You had already decided before you ever
 6 did this EIS. You have already decided, and you have
 7 not ever been -- the DOE, the NRI and all of the Nuclear
 8 Regulatory Commission have failed in all of their
 9 progress and all of the facilities, all of the nuclear
 10 facilities, you failed and failed and failed. I looked
 11 them up. All these facilities have leaked. Oakridge is
 12 now leaking. Vermont where they are bringing the
 13 Vermont stuff down here to Andrews, they have a leak
 14 now. This has continued.

15 You have not proven to me with your track
 16 record that you know what you are doing, that you can
 17 handle these situations. I am totally disappointed.
 18 You did not answer our question. We got up here and it
 19 was a futile effort.

20 Also, I want to express right now that if
 21 they do another study, I want you to actually have
 22 someone to come and teach us what we need to do, because
 23 evidently you go and get other people's papers and
 24 ruffle them together and say this is the way it is going
 25 to be. I want to be able to do the study as a citizen

30 days after publication of the EPA Notice of Availability for this final EIS
 in the *Federal Register*. The selection of a site will be based on this final EIS
 and other appropriate factors and will be announced in a ROD published in the
Federal Register.

903-3

**903-2
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DOE has a long history of safely handling mercury in 3-liter (34.6-kilogram
 [76-pound]) flasks over many decades. DOE is committed to the following
 overall objectives for its mercury storage program: (1) protect human health
 and the environment and ensure the safety of workers and the public; (2) meet
 the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and
 (3) comply with applicable Federal, state, and local laws and regulations. Also, in
 accordance with Section 5 of the Act, DOE has developed guidance, presented in
Interim Guidance (DOE 2009a), that establishes basic standards and procedures for
 the receipt, management, and long-term storage of mercury at a DOE facility(ies).

903-3

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing March 9, 2010

13

1 in this town and do it right. Evidently y'all are all
 2 paper pushers and don't actually do the studies that we
 3 asked you to do. Thank you.

4 MS. ROBINSON: Thank you, ma'am. Are
 5 there others in the room who did not sign up, because
 6 that is the list of people who did. Who would now like
 7 to make a comment?

8 MELODYE PRYOR: I'm sorry. I'm going
 9 against my word. I wasn't going to speak. I was born
 10 and raised here. I didn't get to attend the Eunice
 11 meetings last night because I had to work.

12 There was a comment made that there was a
 13 10 mile radius that they were looking into. Well, what
 14 about the people in Eunice that live five miles away?
 15 What kind of impact is it going to fit -- to effect
 16 them? Just because they are across the state line, they
 17 don't exist? They are within the 10-mile radius.

18 They say that there are 500 wells. Maybe,
 19 maybe not over water. Are there any oil wells out there,
 20 because usually -- I don't know, when they are usually
 21 drilling for water -- oil, they pump water down and who
 22 knows what?

23 I don't think y'all have done your job. I
 24 don't think y'all did the environmental impact study
 25 that we asked you when you first came. Y'all just took

904-1 The human health risk assessment performed for WCS for normal facility operations, accidents, and transportation sets no limit on the distance to which the impact would be determined. This assessment is documented in Chapter 4, Section 4.9.9, of this *Mercury Storage EIS*. Section 4.9.4.2 describes the potential impacts on air quality from siting a mercury storage facility at WCS. Amounts of mercury vapor anticipated to be emitted during normal facility operations would have a negligible effect on workers and the public, with a negligible risk to human health. A 16-kilometer (10-mile) radius centered on each candidate mercury storage site was used as the basis for the environmental justice analysis to identify minority and low-income populations residing in proximity to each site, as described in Appendix B, Section B.11.1, of this EIS.

904-2 A discussion of oil wells in the vicinity of WCS is presented in Chapter 3, Section 3.8.2.1. As noted in that section, most wells in the region have been abandoned or are in the process of secondary or tertiary recovery. There are no wells in the area of the proposed storage facility, and recent exploration has determined that significant oil and gas reserves are unlikely beneath the site.

904-3 As demonstrated in the Chapter 3 and 4 sections on affected environment and environmental consequences, DOE conducted a thorough analysis of pertinent issues at the seven sites considered in this *Mercury Storage EIS*, including those required under NEPA, those raised by the public during the scoping period for the draft EIS, and those raised by the public during the comment period following publication of the draft EIS. DOE and its contractors have independently reviewed and evaluated the available information in preparing this EIS. DOE and most Federal and state agencies do not conduct their own environmental studies for use in EISs. Rather, they rely on studies prepared by independent, reputable sources from government, academia, and industry. Many of these studies are prepared by professionals that maintain state licenses in their areas of study, including professional engineers and certified professional geologists. These professionals certify the accuracy of the documents they prepare under penalty of law.

904-1

904-2

904-3

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

14

1 the word of one company that is out to make money and
2 bring this in. Y'all didn't do anything.

3 What are these other sites? Did y'all
4 tell them the same thing as us, and then just go with
5 whatever company that was wanting to bring it in? Did
6 you go with that company's studies that they have done
7 and told those people the very same thing, that we
8 didn't do it, we just went with the company that you are
9 fighting against and just took their word for it?

10 You know -- and the containers, if they
11 are impermeable and they last for 40 years and they
12 can't be exploded and all of this, why do they have
13 little beads popping out on them? To me, that is a
14 leak.

15 You can't say that nothing is going to
16 happen in 900 years, because none of us are going to be
17 alive. You can't say that statement. And for a
18 contract for 40 years, the majority of us in this room
19 isn't going to be alive in 40 years. Maybe the baby
20 back there. Hopefully the baby back there. So you
21 don't have anything to base that on.

22 All of the other nuclear sites, mercury
23 sites, we have all been lied to. The government has
24 lied to us. They are all leaking. They have all seeped
25 into the ground. They have all contaminated the water.

904-4

Chapter 1, Section 1.5.1, discusses the process DOE used to identify candidate sites analyzed in this *Mercury Storage EIS*. Chapter 2, Section 2.4, describes the seven candidate sites selected for additional analysis in this EIS. Section 2.6 discusses those alternatives that were considered but eliminated from detailed analysis. Section 2.7 presents a comparison of impacts among the candidate sites as a result of the detailed analysis provided in this EIS.

904-3
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904-5

DOE does not expect small beads of mercury to be present on the mercury storage containers. The commentator is referring to beads of mercury found on the surface of flasks in storage at the U.S. Department of Defense mercury storage facilities. The beads of mercury are attributed to improper cleaning of the exterior of the flasks after filling and to past leaks from nearby flasks with improper welds that splashed or dripped on the flasks. As described in Appendix D, Section D.4.1.2, even with beads of mercury on some of the flasks, readings taken in residential areas near the U.S. Department of Defense mercury storage buildings reflected mercury levels near the global background level for mercury and well below the EPA limit for long-term exposure.

904-4

904-5

904-6

The commentator's reference to 900 years is unclear. As described in Chapter 1, Section 1.3.1, although the Mercury Export Ban Act of 2008 (P.L. 110-414) contemplates indefinite storage, DOE has used a 40-year period of analysis in this *Mercury Storage EIS* for the purposes of evaluating potential environmental impacts associated with long-term storage. Additional NEPA documentation would be required to evaluate extending storage facility operations beyond the 40-year period of analysis. DOE has a long history of safely handling mercury in 3-liter (34.6-kilogram [76-pound]) flasks over many decades. Further, DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Act. Also, in accordance with Section 5 of the Act, DOE has developed guidance, presented in *Interim Guidance* (DOE 2009a), that establishes basic standards and procedures for the receipt, management, and long-term storage of mercury at a DOE facility(ies). The design, construction, and operation of the mercury storage facility would feature structural controls and practices to prevent the release of elemental mercury and to prevent any spills or other releases from reaching soils or surfaces where they could be conveyed to surface waters or groundwater, as stated in Chapter 4, Section 4.9.3.1. These structural controls and associated other engineering features include the use of spill trays, sloped floors, and floors constructed to be impervious to liquid mercury releases, as further

904-6

904-7

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

15

1 They have all contaminated the air. The fish is
 2 contaminated. I am not a fish eater, and -- you know,
 3 if y'all want to eat fish, that is fine and dandy. If
 4 you can say 100 percent that it is not contaminated, go
 5 ahead and gorge out on them. But you can't say that
 6 this place in 40 years is going to be as safe. We don't
 7 know that. You can't predict that. Nobody can predict
 8 that. That is all I have to say right now.

9 MS. ROBINSON: Thank you, ma'am. Are
 10 there others in the room who would like to make a
 11 comment? Sir, I remember your name is John. I met you.

12 MR. PARISH: I didn't put anything on
 13 paper. My name is John Parish. I am a 50 some odd year
 14 resident of this county, worked in the oilfield every
 15 since 1953.

16 First off, mercury won't burn. I tried it
 17 as a kid. It will boil, but so what? It won't burn. I
 18 know damn well. We are not mining it. We are not
 19 processing it. We are storing it. Hell, it is 90 miles
 20 east of here to any water. Pecos River is west and
 21 south. I don't know what is north.

22 Plus for 50 years out here, mercury was
 23 used all over this country in gas meters. If these
 24 people are worried about the damn mercury, they might
 25 rather pack up and get the hell out of here. It has

described in Appendix C, Section C.2.1, of this EIS. Facility operations would also be conducted in accordance with an integrated contingency plan and spill prevention, control, and countermeasures plan, or equivalent plans as mandated by state requirements for RCRA-permitted facilities, which set forth the actions facility personnel would take to respond to abnormal operating conditions, including fires, explosions, or any accidental release of mercury to air, soil, surface water, or groundwater at the facility.

Other nuclear facilities outside the regions of influence for the candidate sites analyzed as alternatives in this *Mercury Storage EIS* are not within the scope of this EIS.

DOE believes that the historical record of mercury storage activities at Y-12 and at the sites where the U.S. Department of Defense has stored elemental mercury proves that elemental mercury can be safely stored for many decades. Discussion of this historical record may be found in Appendix D, Section D.4.1, of this *Mercury Storage EIS*.

DOE acknowledges the commentator's statement.

DOE acknowledges the commentator's statement about historic uses of mercury. DOE is committed to the following overall objectives for its mercury storage program: (1) protect human health and the environment and ensure the safety of workers and the public; (2) meet the requirements of the Mercury Export Ban Act of 2008 (P.L. 110-414); and (3) comply with applicable Federal, state, and local laws and regulations.

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

16

1 been scattered everywhere. And it hasn't hurt anything
2 that I know of. That is all the comment I got.

3 MS. ROBINSON: Thank you, sir. Are any
4 others interested in making a comment?

5 MS. HADDEN: I would like to make a brief
6 additional comment. While the gentleman before me
7 mentioned saying that mercury won't burn, however, that
8 obviously is a concern of DOE, because they talked about
9 the sprinkler systems that would be needed for the
10 facility, and did not analyze how much water would be
11 needed for the facility, which is rather scarce in this
12 region.

13 And this also brings up another question.
14 If there is mercury scattered all over the region, and
15 best I can tell, there have been some carbon black
16 plants in this region, where are the analyses of the
17 background levels already present, because those are
18 needed to start with to get a good handle on what is
19 here now and then to analyze what is additional? Thank
20 you.

21 MS. ROBINSON: Thank you, ma'am. Are
22 there other people who have a comment? Sir, would you
23 come forward? And you people who are doing it now, you
24 need to spell your name, unless it is an obvious name,
25 for the lady here.

905-2
cont'd

901-8

901-8

Elemental mercury does not burn or act as a source of ignition. However, a building fire or a transportation accident involving leaking containers and fire could cause volatilization and deposition of mercury vapors downwind and could result in adverse impacts on human health and the environment. As discussed in Chapter 4, Section 4.2.9.1.4, the frequency and impacts from a building fire were determined to be negligible due to the existence of a reliable sprinkler system and limits on flammable materials that would be used in the building. Section 4.2.9.1.5 discussed potential impacts from transportation accidents involving a fire.

901-9

901-9

Appendix C, Sections C.2.3 and C.2.4, discuss the quantities of water that would be required for construction and operation, respectively, of a DOE mercury storage facility. As further described in Chapter 4, Section 4.9.7.2, these water requirements would be minor, ranging from 0.4 to 5 percent of annual WCS water use.

A general discussion on the sources of background air pollutant concentrations of mercury in the environment is presented in Chapter 4, Section 4.11.3.1.3. In addition, Appendix D, Section D.4.1.2, states that the global background concentration of mercury in the air is approximately 2.4×10^{-6} milligrams per cubic meter. Unfortunately, there are no mercury monitors in west Texas.

There are a number of carbon black plants in the Texas Panhandle; the closest is more than 370 kilometers (230 miles) from WCS. A number of these facilities that have operated in this region are no longer operating. As discussed in Section 4.11.1, where impacts were predicted not to occur or were negligible, cumulative impacts were not analyzed since there would be either no, or only a very small, incremental increase in impacts on the resource within the region of influence.

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing March 9, 2010

17

1 MR. GARZA: Howdy. My name is J. Garza.
 2 I work for Waste Control Specialists. I, myself, was
 3 not going to talk or comment, but after hearing these
 4 people here make their comment, I feel I have to respond
 5 to that.
 6 First of all, my title with Waste Control
 7 Specialists is waste acceptance supervisor. Pretty much
 8 this mercury waste that we have been discussing about
 9 will probably go with my department. And to ensure that
 10 this waste meets our waste acceptance criteria and our
 11 RCRA permit, we have to look at that. These people here
 12 are talking about the workers. First of all, the people
 13 who work at the waste facility live in the surrounding
 14 communities. I live in Andrews. People live in Eunice,
 15 Hobbs, Jal, so it is not like we work there but live
 16 somewhere far distant, like Austin, Houston. We live in
 17 the surrounding communities ourselves, so when we accept
 18 waste, whether it be mercury, TSCA, RAD, mixed waste, we
 19 also get to account that this waste will come to us DOT
 20 compliant. It will be stored and taken care of
 21 compliantly with our RCRA permit.
 22 And so when this waste comes here -- and
 23 they are talking about being upset. Our company will
 24 look after its own. We will assure that the people who will
 25 be working with this waste will be wearing proper PPE.

906-1

DOE acknowledges the commentator's statement. As described in the human health risks sections in Chapter 4 and Appendix D, human health risk would be negligible to low. The impacts from mercury storage have been determined to be negligible to low at all candidate sites analyzed in the draft EIS. Although DOE has identified WCS as the Preferred Alternative, as discussed in Chapter 2, Section 2.5, DOE has not made a decision on the location of the mercury storage facility(ies). DOE will make a decision no sooner than 30 days after publication of the EPA Notice of Availability for this final EIS in the *Federal Register*. The selection of a site will be based on this final EIS and other appropriate factors and will be announced in a ROD published in the *Federal Register*. Regardless of location, DOE is committed to protecting the environment and public health while ensuring a capability for the safe and secure long-term management and storage of elemental mercury pursuant to the Mercury Export Ban Act of 2008 (P.L. 110-414).

906-2

While a third-party entity such as Waste Control Specialists, LLC, may be involved in the day-to-day management and storage of elemental mercury at the DOE mercury storage facility(ies), DOE would retain ownership of the mercury and overall responsibility for its safe and secure storage. Mercury placed into long-term storage would be managed independently from other facility operations and waste streams. Companies used to transport the mercury to the DOE facility(ies) would be licensed by the U.S. Department of Transportation and trained to transport hazardous materials, would have proper emergency response plans in place, and would be insured. As discussed in Chapter 5, Section 5.2.4, the Mercury Export Ban Act of 2008 (P.L. 110-414) stipulates that elemental mercury managed and stored at a DOE-designated facility(ies) is subject to the requirements of RCRA's hazardous waste provisions. The storage facility would be operated in accordance with all applicable regulations and the hazardous waste storage permit issued by the host state.

906-3

DOE acknowledges the commentator's statement regarding the use of proper personal protective equipment.

906-1

906-2

906-3

Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing

March 9, 2010

18

1 They are not going to go inside unprotected.

2 Plus, all the structure must meet RCRA
3 requirements. It is not going to be like an old
4 warehouse that you will see on the back streets of
5 Odessa. So that is all I have to say. There is support
6 for this. People at WCS will gather this waste
7 compliantly. There will be no problems. Thank you.

8 MS. ROBINSON: Thank you. Does anybody
9 else in the room have a comment to offer? Okay. That
10 being the end of the oral comments, I still encourage
11 you to turn in written comments.

|| 906-3
cont'd

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Comments from the Andrews, Texas, Public Hearing (March 9, 2010)

Public Hearing March 9, 2010

19

1 THE STATE OF TEXAS)
 2 COUNTY OF ECTOR)

3

4 I, Debra Guthrie, Certified Shorthand Reporter Number
 5 3910 for The State of Texas, do hereby certify that the
 6 above and foregoing pages contain a full, true and
 7 correct computer-assisted transcription of my
 8 computerized stenotype shorthand notes taken on said
 9 occasion.

10 I further certify that I am neither counsel for, related
 11 to, nor employed by any of the parties or attorneys in
 12 the action in which this proceeding was taken, and
 13 further that I am not financially or otherwise
 14 interested in the outcome of the action.

15 Witness my hand this 16th day of March, 2010.

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Debra D. Guthrie

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