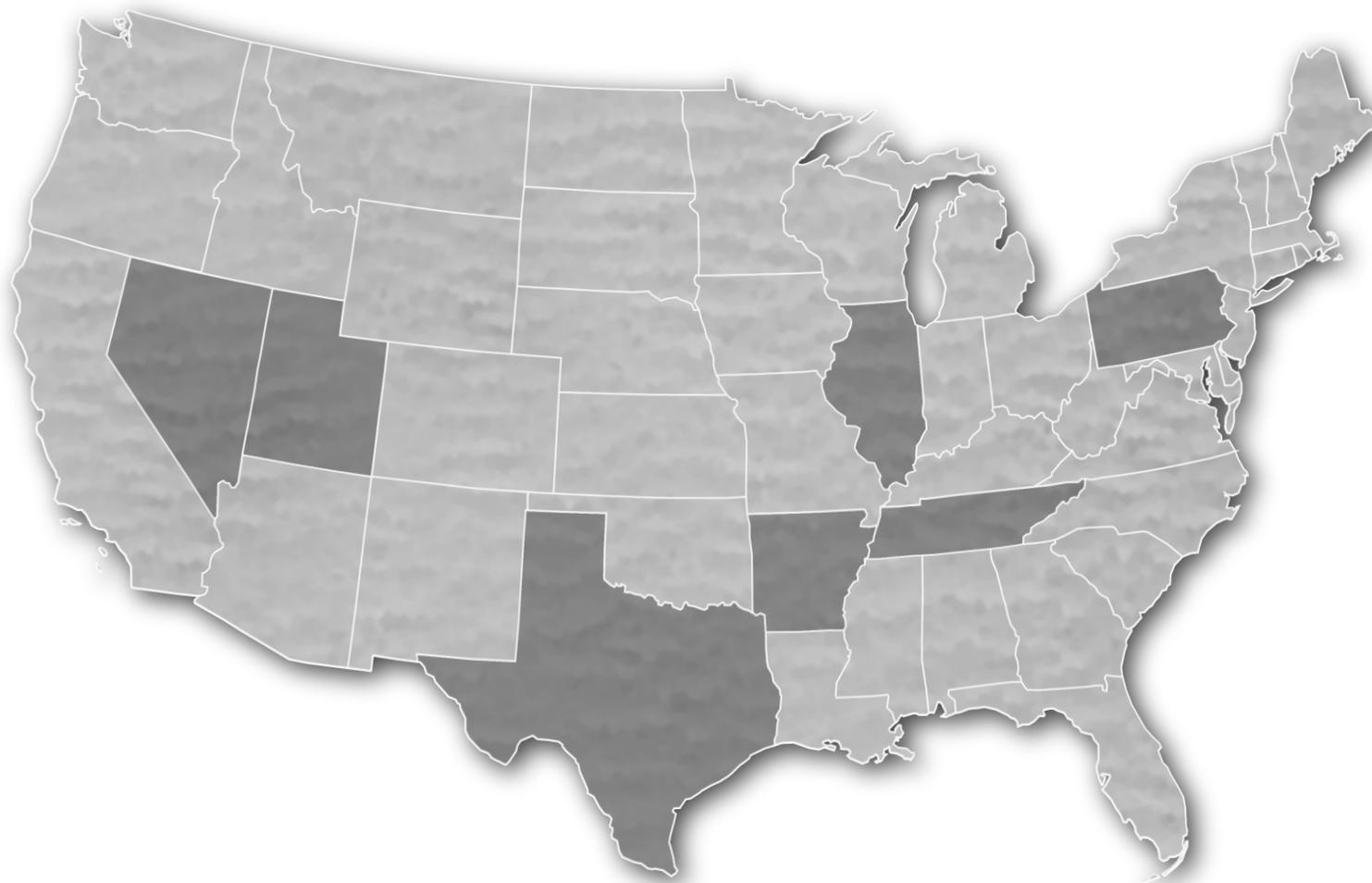


**FINAL**

# LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY

*Supplemental Environmental Impact Statement*



**Volume 2**  
*Appendices*

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



**Final Mercury Storage SEIS-II**

METRIC TO ENGLISH			ENGLISH TO METRIC		
Multiply	by	To get	Multiply	by	To get
<b>Area</b>					
Square meters	10.764	Square feet	Square feet	0.092903	Square meters
Square kilometers	247.1	Acres	Acres	0.0040469	Square kilometers
Square kilometers	0.3861	Square miles	Square miles	2.59	Square kilometers
Hectares	2.471	Acres	Acres	0.40469	Hectares
<b>Concentration</b>					
Kilograms/square meter	0.16667	Tons/acre	Tons/acre	0.5999	Kilograms/square meter
Milligrams/liter	1 <sup>a</sup>	Parts/million	Parts/million	1 <sup>a</sup>	Milligrams/liter
Micrograms/liter	1 <sup>a</sup>	Parts/billion	Parts/billion	1 <sup>a</sup>	Micrograms/liter
Micrograms/cubic meter	1 <sup>a</sup>	Parts/trillion	Parts/trillion	1 <sup>a</sup>	Micrograms/cubic meter
<b>Density</b>					
Grams/cubic centimeter	62.428	Pounds/cubic feet	Pounds/cubic feet	0.016018	Grams/cubic centimeter
Grams/cubic meter	0.0000624	Pounds/cubic feet	Pounds/cubic feet	16,018.5	Grams/cubic meter
<b>Length</b>					
Centimeters	0.3937	Inches	Inches	2.54	Centimeters
Meters	3.2808	Feet	Feet	0.3048	Meters
Kilometers	0.62137	Miles	Miles	1.6093	Kilometers
<b>Radiation</b>					
Sieverts	100	Rem	Rem	0.01	Sieverts
<b>Temperature</b>					
<i>Absolute</i>					
Degrees C + 17.78	1.8	Degrees F	Degrees F - 32	0.55556	Degrees C
<i>Relative</i>					
Degrees C	1.8	Degrees F	Degrees F	0.55556	Degrees C
<b>Velocity/Rate</b>					
Cubic meters/second	2118.9	Cubic feet/minute	Cubic feet/minute	0.00047195	Cubic meters/second
Grams/second	7.9366	Pounds/hour	Pounds/hour	0.126	Grams/second
Meters/second	2.237	Miles/hour	Miles/hour	0.44704	Meters/second
<b>Volume</b>					
Liters	0.26418	Gallons	Gallons	3.7854	Liters
Liters	0.035316	Cubic feet	Cubic feet	28.316	Liters
Liters	0.001308	Cubic yards	Cubic yards	764.54	Liters
Cubic meters	264.17	Gallons	Gallons	0.0037854	Cubic meters
Cubic meters	35.314	Cubic feet	Cubic feet	0.028317	Cubic meters
Cubic meters	1.3079	Cubic yards	Cubic yards	0.76456	Cubic meters
Cubic meters	0.0008107	Acre-feet	Acre-feet	1233.49	Cubic meters
<b>Weight/Mass</b>					
Grams	0.035274	Ounces	Ounces	28.35	Grams
Kilograms	2.2046	Pounds	Pounds	0.45359	Kilograms
Kilograms	0.0011023	Tons (short)	Tons (short)	907.18	Kilograms
Metric tons	1.1023	Tons (short)	Tons (short)	0.90718	Metric tons
<b>ENGLISH TO ENGLISH</b>					
Acre-feet	325,850.7	Gallons	Gallons	0.000003046	Acre-feet
Acres	43,560	Square feet	Square feet	0.000022957	Acres
Square miles	640	Acres	Acres	0.0015625	Square miles

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

**METRIC PREFIXES**

Prefix	Symbol	Multiplication factor
exa-	E	1,000,000,000,000,000,000 = 10 <sup>18</sup>
peta-	P	1,000,000,000,000,000 = 10 <sup>15</sup>
tera-	T	1,000,000,000,000 = 10 <sup>12</sup>
giga-	G	1,000,000,000 = 10 <sup>9</sup>
mega-	M	1,000,000 = 10 <sup>6</sup>
kilo-	k	1,000 = 10 <sup>3</sup>
deca-	D	10 = 10 <sup>1</sup>
deci-	d	0.1 = 10 <sup>-1</sup>
centi-	c	0.01 = 10 <sup>-2</sup>
milli-	m	0.001 = 10 <sup>-3</sup>
micro-	μ	0.000 001 = 10 <sup>-6</sup>
nano-	n	0.000 000 001 = 10 <sup>-9</sup>
pico-	p	0.000 000 000 001 = 10 <sup>-12</sup>

**APPENDIX A**  
**PERTINENT LEGISLATION AND NOTICES**

## CONTENTS

### APPENDIX A: PERTINENT LEGISLATION AND NOTICES

Extension of Public Comment Period, Draft Supplemental Environmental Impact Statement II for Long Term Management and Storage of Elemental Mercury (87 FR 49817)

Notice of Availability: Draft Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury (87 FR 40830)

Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury (86 FR 27838)

Letter from Acting Assistant Secretary for Environmental Management RE: Identification of Potential Long-Term Storage Facilities for Elemental Mercury

Mercury Export Ban Act of 2008

Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century

Dated: August 9, 2022.

**Kun Mullan,**

*PRA Coordinator, Strategic Collections and Clearance, Governance and Strategy Division, Office of Chief Data Officer, Office of Planning, Evaluation and Policy Development.*

[FR Doc. 2022-17333 Filed 8-11-22; 8:45 am]

BILLING CODE 4000-01-P

**DEPARTMENT OF ENERGY**

**Electricity Advisory Committee**

**AGENCY:** Office of Electricity, Department of Energy.

**ACTION:** Notice of renewal.

**SUMMARY:** Pursuant to the Federal Advisory Committee Act and following consultation with the Committee Management Secretariat, General Services Administration, notice is hereby given that the Electricity Advisory Committee's (EAC) charter has been renewed for a two-year period, beginning on August 5, 2022.

**SUPPLEMENTARY INFORMATION:** The Committee will provide advice and recommendations to the Assistant Secretary for Electricity on programs to modernize the Nation's electric power system.

Additionally, the renewal of the EAC has been determined to be essential to conduct Department of Energy business and to be in the public interest in connection with the performance of duties imposed upon the Department of Energy, by law and agreement. The Committee will continue to operate in accordance with the provisions of the Federal Advisory Committee Act, adhering to the rules and regulations in implementation of that Act.

**FOR FURTHER INFORMATION CONTACT:** Ms. Jayne Faith, Designated Federal Officer at (202) 586-5260; email: [jayne.faith@hq.doe.gov](mailto:jayne.faith@hq.doe.gov).

**Signing Authority**

This document of the Department of Energy was signed on August 5, 2022, by Miles Fernandez, Acting Committee Management Officer, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters

the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on August 9, 2022.

**Treana V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

[FR Doc. 2022-17376 Filed 8-11-22; 8:45 am]

BILLING CODE 6450-01-P

**DEPARTMENT OF ENERGY**

**Extension of Public Comment Period, Draft Supplemental Environmental Impact Statement II for Long Term Management and Storage of Elemental Mercury**

**AGENCY:** Office of Environmental Management, Department of Energy.

**ACTION:** Extension of public comment period.

**SUMMARY:** On July 8, 2022, a **Federal Register** Notice was issued that announced the availability of the U.S. Department of Energy (DOE) Office of Environmental Management's Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (Draft Mercury Storage SEIS-II, DOE/EIS-0423-S2D). The Notice also announced two web-based public hearings that were held on August 2 and 4, 2022, to obtain public comments. DOE is extending the public comment period for the Draft SEIS from August 22, 2022, to September 6, 2022.

**DATES:** DOE extends the public comment period to September 6, 2022. DOE will consider all comments submitted or postmarked by September 6, 2022. Comments submitted to DOE concerning the Draft Mercury Storage SEIS-II, prior to this announcement do not need to be resubmitted as a result of this extension of the comment period.

**ADDRESSES:** Additional information regarding the SEIS-II, the 2011 Mercury Storage EIS, 2013 Mercury Storage SEIS, and other related documents is available online at: <https://www.energy.gov/nepa/doeeis-0423-s2-supplemental-environmental-impact-statement-long-term-management-and-storage>:

- **Mail:** Ms. Julia Donkin, Document Manager, Office of Environmental Management, Department of Energy, EM-4.22, 1000 Independence Avenue SW, Washington, DC 20585.

- **Email:** [ElementalMercury\\_NEPA@em.doe.gov](mailto:ElementalMercury_NEPA@em.doe.gov). Please submit comments as an email message or email attachment (*i.e.*, Microsoft Word or PDF file format) without encryption.

- **Postal Mail:** Please submit comments by U.S. Mail to Ms. Julia

Donkin, NEPA Document Manager, Office of Environmental Management, U.S. Department of Energy, EM-4.22, 1000 Independence Avenue SW, Washington, DC 20585.

- **Website:** The Draft Mercury Storage SEIS-II is available at: <https://www.energy.gov/nepa/doeeis-0423-s2-supplemental-environmental-impact-statement-long-term-management-and-storage>.

**FOR FURTHER INFORMATION CONTACT:**

Questions concerning the Draft Mercury Storage SEIS-II or the public hearing can be sent to Ms. Julia Donkin, NEPA Document Manager, Office of Environmental Management, U.S. Department of Energy, EM-4.22, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586-5000, or to [Julia.Donkin@em.doe.gov](mailto:Julia.Donkin@em.doe.gov). Direct questions specific to DOE's elemental mercury program to Mr. David Haught, Mercury Program Manager, Office of Environmental Management, U.S. Department of Energy, EM-4.22, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586-5000, or to [David.Haught@hq.doe.gov](mailto:David.Haught@hq.doe.gov).

- For general information concerning the DOE Office of Environmental Management NEPA process, please contact Mr. William Ostrum, Office of Environmental Management NEPA Compliance Officer, U.S. Department of Energy, EM-4.31, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586-2513, or to [William.Ostrum@hq.doe.gov](mailto:William.Ostrum@hq.doe.gov).

**SUPPLEMENTARY INFORMATION:** On July 8, 2022, DOE published in the **Federal Register** the Notice of Availability announcing the availability of the second Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (Draft Mercury Storage SEIS-II, DOE/EIS-0423-S2D) for public comment (87 FR 40830). In that notice, DOE also announced that it would host two web-based public hearings to allow DOE to present information about the Draft SEIS-II and to receive oral comments from the public. The first hearing was held on August 2, 2022, from 12:00 p.m. to 2:00 p.m. EDT. The second hearing was held on August 4, 2022, from 1:00 p.m. to 3:00 p.m. EDT.

**Signing Authority**

This document of the Department of Energy was signed on August 5, 2022, by William I. White Senior Advisor for Environmental Management, Office of Environmental Management, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is

maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on August 9, 2022.

**Treena V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

[FR Doc. 2022-17375 Filed 8-11-22; 8:45 am]

**BILLING CODE 6450-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Project No. P-2411-030]

#### **Eagle Creek Schoolfield Hydro, LLC, City of Danville; Notice of Application Tended for Filing With the Commission and Soliciting Additional Study Requests and Establishing Procedural Schedule for Relicensing and a Deadline for Submission of Final Amendments**

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection.

- a. *Type of Application:* New Major License.
- b. *Project No.:* 2411-030.
- c. *Date Filed:* July 29, 2022.
- d. *Applicant:* Eagle Creek Schoolfield, LLC and City of Danville.
- e. *Name of Project:* Schoolfield Hydroelectric Project (Schoolfield Project).
- f. *Location:* The project is located on the Dan River at approximately river mile 60.1 in the county of Pittsylvania, near the City of Danville, Virginia. The project does not occupy any federal land.
- g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791(a)-825(r).
- h. *Applicant Contacts:* Ms. Joyce Foster, Director, Licensing and Compliance Eagle Creek Renewable Energy, LLC, 7315 Wisconsin Avenue, Suite 1100W, Bethesda, MD 20814; Phone at (804) 338-5110 or email at [Joyce.Foster@eaglecreekre.co](mailto:Joyce.Foster@eaglecreekre.co); Ms. Jody Smet, Vice President, Regulatory Affairs, Eagle Creek Renewable Energy, LLC, 7315 Wisconsin Ave., Suite 1100W, Bethesda, MD 20814; Phone at (240) 482-2700 or email at [\[eaglecreekre.com\]\(http://eaglecreekre.com\); and Mr. W Clarke Whitfield, Junior, City Attorney, City of Danville, 427 Patton Street, Room 421, Danville, VA 24541; Phone at \(434\) 799-5122 or email at \[whitfcc@danvilleva.gov\]\(mailto:whitfcc@danvilleva.gov\).](mailto:jody.smet@</a></li>
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i. *FERC Contact:* Erin Stocksclaeder at (202) 502-8107, or [Erin.stocksclaeder@ferc.gov](mailto:Erin.stocksclaeder@ferc.gov).

j. *Cooperating agencies:* Federal, state, local, and tribal agencies with jurisdiction and/or special expertise with respect to environmental issues that wish to cooperate in the preparation of the environmental document should follow the instructions for filing such requests described in item l below. Cooperating agencies should note the Commission's policy that agencies that cooperate in the preparation of the environmental document cannot also intervene. See, 94 FERC ¶ 61,076 (2001).

k. Pursuant to section 4.32(b)(7) of 18 CFR of the Commission's regulations, if any resource agency, Indian Tribe, or person believes that an additional scientific study should be conducted in order to form an adequate factual basis for a complete analysis of the application on its merit, the resource agency, Indian Tribe, or person must file a request for a study with the Commission not later than 60 days from the date of filing of the application, and serve a copy of the request on the applicant.

l. *Deadline for filing additional study requests and requests for cooperating agency status:* September 27, 2022.

The Commission strongly encourages electronic filing. Please file additional study requests and requests for cooperating agency status using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, you may submit a paper copy. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. All filings must clearly identify the project name and docket number on the first page: Schoolfield Project (P-2411-030).

m. This application is not ready for environmental analysis at this time.

n. *The Schoolfield Project consists of the following existing facilities:* (1) a

910-foot-long, 25-foot-high curved ogee-type concrete spillway dam with a crest elevation of 434.7 feet National Geodetic Vertical Datum of 1929 (NGVD29) and topped with 3-foot-high wooden flashboards; (2) a reservoir having a surface area of 287 acres and a gross storage capacity of approximately 1,952 acre-feet at the project's normal maximum water surface elevation of 437.7 feet NGVD29; (3) a 224-foot-long by 35-foot-wide brick and concrete powerhouse that contains three identical 1.5-megawatt (MW) generating units (each generating unit is connected to two identical propeller-type turbine units with rated capacity of 1,006 horsepower each) for a total installed capacity of 4.5 MW; (4) a 72-foot-long headwall between the dam and the powerhouse with six low-level sluice gates and a non-operating fish ladder; (5) a tailrace that is approximately 160 feet long and 220 feet wide and separated from main river flows by a concrete wall; (6) a substation; (7) generator leads and a step-up transformer; and (8) appurtenant facilities.

The Schoolfield Project is operated in run-of-river mode, which may be suspended during reservoir drawdown and refilling for inspection of the City of Danville, Virginia's water supply intakes, which occurs on an as needed basis. During normal operation, an instantaneous minimum flow of 300 cubic feet per second is released downstream. The minimum flow is typically provided as part of generation flows. Average annual generation at the project was 15,220 megawatt-hours from 2017-2020.

o. A copy of the application can be viewed on the Commission's website at <http://www.ferc.gov>, using the "eLibrary" link. Enter the docket number, excluding the last three digits in the docket number field, to access the document (P-2411). For assistance, contact FERC at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), or call toll-free, (866) 208-3676 or (202) 502-8659 (TTY).

You may also register online at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

p. *Procedural schedule:* The application will be processed according to the following preliminary schedule. Revisions to the schedule will be made as appropriate.

Issue Deficiency Letter (if necessary)—  
September 2022  
Request Additional Information—  
September 2022

Verification tracking flag	Verification tracking group name	FAFSA information required to be verified
V2 .....	Reserved .....	<i>Tax Filers and Non-Tax Filers:</i> <ul style="list-style-type: none"> <li>• Number of Household Members.</li> <li>• Number in College.</li> </ul>
V3 .....	Reserved .....	N/A.
V4 .....	Custom Verification Group .....	N/A.
V5 .....	Aggregate Verification Group .....	<ul style="list-style-type: none"> <li>• Identity/Statement of Educational Purpose.</li> </ul> <i>Tax Filers:</i> <ul style="list-style-type: none"> <li>• Adjusted Gross Income.</li> <li>• U.S. Income Tax Paid.</li> <li>• Untaxed Portions of IRA Distributions and Pensions.</li> <li>• IRA Deductions and Payments.</li> <li>• Tax Exempt Interest Income.</li> <li>• Education Tax Credits.</li> </ul> <i>Non-Tax Filers:</i> <ul style="list-style-type: none"> <li>• Income Earned from Work.</li> </ul> <i>Tax Filers and Non-Tax Filers:</i> <ul style="list-style-type: none"> <li>• Number of Household Members.</li> <li>• Number in College.</li> <li>• Identity/Statement of Educational Purpose.</li> </ul>
V6 .....	Reserved .....	N/A.

**Other Sources for Detailed Information**

We provide a more detailed discussion on the verification process in the following resources that will be available on the Knowledge Center web page at <https://fsapartners.ed.gov/knowledge-center>:

- 2023–2024 *Application and Verification Guide*.
- 2023–2024 *ISIR Guide*.
- 2023–2024 *SAR Comment Codes and Text*.
- 2023–2024 *COD Technical Reference*.

• Program Integrity Information—Questions and Answers on Verification at [www2.ed.gov/policy/highered/reg/hearulemaking/2009/verification.html](http://www2.ed.gov/policy/highered/reg/hearulemaking/2009/verification.html).

*Accessible Format:* On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc or other accessible format.

*Electronic Access to This Document:* The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at [www.govinfo.gov](http://www.govinfo.gov). At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF, you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal**

**Register** by using the article search feature at: [www.federalregister.gov](http://www.federalregister.gov). Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

*Program Authority:* 20 U.S.C. 1070a, 1070b–1070b–4, 1087a–1087j, and 20 U.S.C. 1087–51–1087–58.

**Annamarie Weisman,**  
*Deputy Assistant Secretary for Policy, Planning, and Innovation, Office of Postsecondary Education.*

[FR Doc. 2022–14511 Filed 7–7–22; 8:45 am]

**BILLING CODE 4000–01–P**

**DEPARTMENT OF ENERGY**

**Draft Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury**

**AGENCY:** Office of Environmental Management, Department of Energy.

**ACTION:** Notice of availability.

**SUMMARY:** The U.S. Department of Energy (DOE) announces the availability of the second Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (Draft Mercury Storage SEIS–II, DOE/EIS–0423–S2D) for public comment. As required by the *Mercury Export Ban Act of 2008* and the 2016 *Frank R. Lautenberg Chemical Safety for the 21st Century Act* (all together referred to as MEBA), DOE proposes to identify an existing facility or facilities for the long-term management and storage of elemental mercury generated within the United States. To this end, DOE issued the

*Final Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury* (Mercury Storage EIS, DOE/EIS–0423, January 2011) and the first *Final Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement* (Mercury Storage SEIS, DOE/EIS–0423–S1, September 2013), which analyzed reasonable alternatives, in accordance with the *National Environmental Policy Act* (NEPA), for locating and developing such a facility. On May 24, 2021, DOE announced its intent to prepare a second supplement to the Mercury Storage EIS to update these previous analyses of potential environmental impacts and analyze additional alternatives, in accordance with NEPA.

**DATES:** DOE invites public comment on this Draft Mercury Storage SEIS–II during a 45-day public comment period, which commences with the publication of this Notice in the **Federal Register** and continues until August 22, 2022. In preparing the Final Mercury Storage SEIS–II, DOE will consider all comments received by that date. Comments received after that date will be considered to the extent practicable. DOE will hold two web-based public hearings via Zoom. The hearings will cover the same material. The first hearing will be held on August 2, 2022, from 12:00 p.m. to 2:00 p.m. EDT. The second hearing will be held on August 4, 2022, from 1:00 p.m. to 3:00 p.m. EDT. See Section V, “Public Participation,” for further information on the public comment process and the web-based hearings.

**ADDRESSES:** Additional information regarding the SEIS–II, the 2011 Mercury Storage EIS, 2013 Mercury Storage SEIS,

and other related documents is available online at: <https://www.energy.gov/nepa/doe-is-0423-s2-supplemental-environmental-impact-statement-long-term-management-and-storage>. Please direct written comments or questions on the Draft Mercury Storage SEIS–II using one of the following methods:

- *Zoom Hearing Room* (during the scheduled dates); details regarding the web-based public hearing are provided in Section V, “Public Participation:” <https://em-doe.zoomgov.com/j/1608025687?pwd=Zndsbkp6THA4V2lFdXE3ZGExclF6Zz09> (copy and paste into web browser).

- *Email: ElementalMercury\_NEPA@em.doe.gov*. Please submit comments as an email message or email attachment (i.e., Microsoft Word or PDF file format) without encryption.

- *Postal mail*: Please submit comments by U.S. Mail to Ms. Julia Donkin, NEPA Document Manager, Office of Environmental Management, U.S. Department of Energy, EM–4.22, 1000 Independence Avenue SW, Washington, DC 20585.

The Draft Mercury Storage SEIS–II is available at: <https://www.energy.gov/nepa/doe-is-0423-s2-supplemental-environmental-impact-statement-long-term-management-and-storage>.

**FOR FURTHER INFORMATION CONTACT:**

Questions concerning the Draft Mercury Storage SEIS–II or the public hearing can be sent to Ms. Julia Donkin, NEPA Document Manager, Office of Environmental Management, U.S. Department of Energy, EM–4.22, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586–5000, or to [Julia.Donkin@em.doe.gov](mailto:Julia.Donkin@em.doe.gov). Direct questions specific to DOE’s elemental mercury program to Mr. David Haight, Mercury Program Manager, Office of Environmental Management, U.S. Department of Energy, EM–4.22, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586–5000, or to [David.Haight@hq.doe.gov](mailto:David.Haight@hq.doe.gov).

For general information concerning the DOE Office of Environmental Management NEPA process, please contact Mr. William Ostrum, Office of Environmental Management NEPA Compliance Officer, U.S. Department of Energy, EM–4.31, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586–2513, or to [William.Ostrum@hq.doe.gov](mailto:William.Ostrum@hq.doe.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Background**

The *Mercury Export Ban Act of 2008* (Pub. L. 110–414) and the 2016 *Frank R. Lautenberg Chemical Safety for the 21st Century Act* (Pub. L. 114–182) (all

together referred to as MEBA), amended the *Toxic Substances Control Act* (TSCA; 15 U.S.C. 2601–2629) and the *Resource Conservation and Recovery Act* (RCRA; 42 U.S.C. 6939f) to address, among other things, the export and long-term management and storage of elemental mercury. MEBA prohibits the sale, distribution, or transfer by Federal agencies to any other Federal agency, any state or local government agency, or any private individual or entity, of any elemental mercury under the control or jurisdiction of a Federal agency (with certain limited exceptions). MEBA also amended section 266(c) of TSCA to prohibit the export of elemental mercury from the United States (with certain limited exceptions). MEBA directs DOE to designate a facility (or facilities) of DOE for the long-term management and storage of elemental mercury generated within the United States. MEBA further provides the Secretary of Energy with the authority to establish such terms, conditions, and procedures as are necessary to carry out this long-term management and storage function. Although the phrase “facility (or facilities) of [DOE]” is not defined in MEBA, DOE has a longstanding practice in various other contexts of leasing facilities to accomplish the Department’s core mission. Consistent with that practice, DOE construes the term “facility of DOE” to include a facility leased from a commercial entity or by another Federal agency over which the Department provides an appropriate level of oversight and guidance. Accordingly, if DOE were to designate a facility that currently is owned by a commercial entity or by another Federal agency, DOE would obtain an appropriate leasehold interest in that facility to comply with MEBA. DOE would ensure that any such facility currently owned by a commercial entity or by another Federal agency would afford DOE an appropriate level of responsibility and control over the facility.

The primary sources of elemental mercury in the United States include mercury generated as a byproduct of the gold-mining process and mercury reclaimed from recycling and waste recovery activities. In addition, DOE National Nuclear Security Administration (NNSA) stores approximately 1,200 metric tons of elemental mercury at the Oak Ridge Reservation in Tennessee, which was generated in support of NNSA’s mission.

The 2011 Mercury Storage EIS evaluated seven candidate locations for the elemental mercury storage facility, as well as a No-Action Alternative. The

locations included new facility construction, use of existing facilities, or both. The candidate locations evaluated in 2011 were: DOE Grand Junction Disposal site near Grand Junction, Colorado (new construction); DOE Hanford Site near Richland, Washington (new construction); Hawthorne Army Depot near Hawthorne, Nevada (existing facilities); DOE Idaho National Laboratory near Idaho Falls, Idaho (new construction and an existing facility); Kansas City Plant in Kansas City, Missouri (existing facility); DOE Savannah River Site near Aiken, South Carolina (new construction); and the Waste Control Specialists LLC (WCS) site near Andrews, Texas (new construction and an existing facility).

The 2013 Mercury Storage SEIS evaluated three additional alternative locations, all in the vicinity of the Waste Isolation Pilot Plant near Carlsbad, New Mexico (all new construction). The 2013 Mercury Storage SEIS also updated some of the relevant analyses for alternatives presented in the 2011 Mercury Storage EIS.

For the 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS, DOE estimated that up to approximately 10,000 metric tons of elemental mercury would need to be managed and stored at the DOE facility during the 40-year period of analysis.

On December 6, 2019, DOE issued a Record of Decision (ROD) to document its designation of the WCS site near Andrews, Texas, for the management and storage of up to 6,800 metric tons of elemental mercury in leased portions of existing buildings at the WCS site (84 FR 66890). The ROD was supported by DOE’s *Supplement Analysis of the Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS–0423–SA–1), which determined that the long-term management and storage of up to 6,800 metric tons of elemental mercury in existing buildings at the WCS site would not constitute a substantial change from the proposal evaluated in the 2011 Mercury Storage EIS and updated in the 2013 Mercury Storage SEIS. On December 23, 2019, DOE published its rule to establish the fee for long-term management and storage of elemental mercury (84 FR 70402; the “Fee Rule”).

Two domestic generators of elemental mercury subsequently filed complaints in United States District Court challenging, among other things, the validity of the Fee Rule and the ROD (*Coeur Rochester, Inc. v. Brouillette et al.*, Case No. 1:19–cv–03860–R/JL [D.D.C. filed December 31, 2019] and *Nevada Gold Mines LLC v. Brouillette et al.*, Case

No. 1:20-cv-00141-RJL [D.D.C filed January 17, 2020]). On August 21, 2020, DOE and Nevada Gold Mines LLC executed a settlement agreement that resolved Nevada Gold Mines' lawsuit. Consistent with that agreement, on September 3, 2020, DOE filed a motion in the District Court asking the Court to vacate and remand the Fee Rule. The District Court granted the motion to vacate and remand the Fee Rule on September 5, 2020. Given the rulemaking process required to establish a fee for the long-term management and storage of elemental mercury, and the expiration of DOE's lease with WCS in June 2021, DOE also agreed in the settlement with Nevada Gold Mines to withdraw the designation of WCS. DOE subsequently withdrew the designation of WCS under MEBA in an amended ROD on October 6, 2020 (85 FR 63105). On April 25, 2021, the District Court signed a joint stipulation to dismiss Coeur Rochester, Inc.'s lawsuit.

## II. Purpose and Need for Action

MEBA established January 1, 2019, as the date by which a DOE facility for the long-term management and storage of elemental mercury generated within the United States must be operational. MEBA requires that DOE adjust fees for generators temporarily accumulating elemental mercury if the DOE facility is not operational by January 1, 2019. If the DOE facility is not operational by January 1, 2020, DOE must: (1) immediately accept the conveyance of title to all elemental mercury that has accumulated on site prior to January 1, 2020,<sup>1</sup> (2) pay any applicable Federal permitting costs, and (3) store, or pay the cost of storage of, until the time at which a facility is operational, accumulated mercury to which the Secretary has title in a facility that has been issued a permit. Because statutory milestone dates have now passed, DOE needs to designate a facility and begin accepting elemental mercury as soon as practicable.

## III. Proposed Action

DOE proposes to designate one or more facilities for the long-term management and storage of elemental mercury in accordance with MEBA. Facilities must comply with applicable requirements of section 5(d) in MEBA, "Management Standards for a Facility," including the requirements of the *Solid Waste Disposal Act* as amended by RCRA, and other state-specific permitting requirements. Consistent

with the Supplement Analysis prepared in 2019 but updated to account for accumulation of elemental mercury since then, the SEIS-II evaluates the potential environmental impacts of an estimated inventory of up to 7,000 metric tons of elemental mercury that could require management and storage during the 40-year period of analysis.

After completion of DOE's Proposed Action, DOE would establish the fee for long-term management and storage of elemental mercury through a rulemaking conducted pursuant to the *Administrative Procedure Act* (5 U.S.C. 551 *et seq.*). DOE would evaluate the potential environmental impacts of the rulemaking in accordance with NEPA implementing procedures at 10 CFR part 1021 at that time.

## IV. Proposed Alternatives

The Mercury Storage SEIS-II evaluates the potential environmental impacts associated with implementation of the Proposed Action in existing facilities at the following reasonable alternative locations:

- Hawthorne Army Depot in Hawthorne, Nevada;
- WCS in Andrews County, Texas;
- Bethlehem Apparatus in Bethlehem, Pennsylvania;
- Perma-Fix Diversified Scientific Services, Inc., in Kingston, Tennessee;
- Veolia North America in Gum Springs, Arkansas; and
- Clean Harbors (facilities in Pecatonica, Illinois; Greenbrier, Tennessee; and Tooele, Utah).

DOE has also updated the analysis of the No-Action Alternative.

For each of the above alternative locations, the Mercury Storage SEIS-II provides an evaluation of the potential environmental impacts for the following resource areas: land use and ownership, and visual resources; geology, soils, and geologic hazards; water resources; air quality and noise; ecological resources; cultural and paleontological resources; site infrastructure; waste management; occupational and public health and safety (including normal operations, facility accidents, transportation, and intentional destructive acts); socioeconomic; and environmental justice. The SEIS-II also includes a description of reasonably foreseeable environmental trends and planned actions within the region of influence for each alternative site. The SEIS-II evaluates the potential cumulative impacts of actions that have a reasonably close causal relationship or that occur at the same time and place as the Proposed Action.

In the 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS, DOE

identified the WCS alternative as the preferred alternative. DOE no longer has a specific preferred alternative. However, DOE does prefer one or more of the alternative locations with existing commercial facilities because selection of one or more of these facilities would best address DOE's schedule urgency established by MEBA.

## V. Public Participation in the NEPA Process

DOE has published the Draft Mercury Storage SEIS-II on the internet at: <https://www.energy.gov/nepa/doesis-0423-s2-supplemental-environmental-impact-statement-long-term-management-and-storage>. Additionally, DOE has scheduled two web-based public hearings to allow DOE to present information about the Draft SEIS-II and to receive oral comments from the public. The first hearing will be held on August 2, 2022, from 12:00 p.m. to 2:00 p.m. EDT. The second hearing will be held on August 4, 2022, from 1:00 p.m. to 3:00 p.m. EDT. Registration details are included below and are also available on the DOE website for long-term management and storage of elemental mercury (<https://www.energy.gov/em/long-term-management-and-storage-elemental-mercury>). If you are joining the web-based public hearing via the internet (the preferred approach), use the link below to log in to the Zoom Meeting Room. If you are joining the web-based public hearing via phone, dial the number below and follow the prompts. Documents and the presentation for the public hearing will be made available on the DOE website for long-term management and storage of elemental mercury (<https://www.energy.gov/em/long-term-management-and-storage-elemental-mercury>). Persons who wish to provide oral comments at the hearing may sign up either before the hearing by submitting a request to [Julia.Donkin@em.doe.gov](mailto:Julia.Donkin@em.doe.gov) (preferred approach) or during the meeting. To join the first web-based public hearing (August 2, 2022) via Zoom Meeting Room: <https://em-doe.zoomgov.com/j/1608025687?pwd=Zndsbkp6THA4V2lFdXE3ZGExcFlF6Zz09> (copy and paste into web browser).

To join the second web-based public hearing (August 4, 2022) via Zoom Meeting Room: <https://em-doe.zoomgov.com/j/1608025687?pwd=Zndsbkp6THA4V2lFdXE3ZGExcFlF6Zz09> (copy and paste into web browser).

## Signing Authority

This document of the U.S. Department of Energy was signed on

<sup>1</sup> Conveyance of title pertains to mercury accumulated in accordance with 42 U.S.C. 6939f(g)(2)(D).

June 27, 2022, by William I. White, Senior Advisor for Environmental Management, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with the requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the U.S. Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on June 30, 2022.

**Treena V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

[FR Doc. 2022-14388 Filed 7-7-22; 8:45 am]

**BILLING CODE 6450-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

#### Combined Notice of Filings #1

Take notice that the Commission received the following Complaints and Compliance filings in EL Dockets:

*Docket Numbers:* EL22-72-000.

*Applicants:* Mercer County Solar Project, LLC v. PJM Interconnection, LLC.

*Description:* Complaint Requesting Fast Track Processing of Mercer County Solar Project, LLC.

*Filed Date:* 6/28/22.

*Accession Number:* 20220628-5159.

*Comment Date:* 5 p.m. ET 7/18/22.

Take notice that the Commission received the following electric rate filings:

*Docket Numbers:* ER10-1821-022.

*Applicants:* Goshen Phase II LLC.

*Description:* Triennial Market Power Analysis for the Northwest Region of Goshen Phase II LLC.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5340.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER10-2126-006.

*Applicants:* Idaho Power Company.

*Description:* Triennial Market Power Analysis for the Northwest Region and Notice of Change in Status of Idaho Power Company.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5332.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER10-2575-011.

*Applicants:* Watson Cogeneration Company.

*Description:* Triennial Market Power Analysis for the Southwest Region of Watson Cogeneration Company.

*Filed Date:* 7/1/22.

*Accession Number:* 20220701-5067.

*Comment Date:* 5 p.m. ET 8/30/22.

*Docket Numbers:* ER10-2756-010;

ER10-2264-010; ER10-2359-011.

*Applicants:* Sunrise Power Company, LLC, Long Beach Generation LLC, Griffith Energy LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of Griffith Energy LLC, et al.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5337.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER10-2757-009;

ER11-3051-005.

*Applicants:* Macho Springs Power I, LLC, Arlington Valley, LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of Arlington Valley, LLC, et al.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5336.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER10-3310-015;

ER18-53-003.

*Applicants:* CXA La Paloma, LLC, New Harquahala Generating Company, LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of New Harquahala Generating Company, LLC, et al.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5328.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER12-2178-016;

ER10-2192-039; ER13-1536-023;

ER10-2178-039.

*Applicants:* Constellation NewEnergy, Inc., Constellation Energy Generation, LLC, Constellation Energy Commodities Group Maine, LLC, AV Solar Ranch 1, LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of AV Solar Ranch 1, LLC, et al.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5335.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER13-1865-005.

*Applicants:* Tesoro Refining & Marketing Company LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of Tesoro Refining & Marketing Company LLC.

*Filed Date:* 7/1/22.

*Accession Number:* 20220701-5074.

*Comment Date:* 5 p.m. ET 8/30/22.

*Docket Numbers:* ER14-1140-002;

ER13-1069-015; ER12-2381-012;

ER10-1484-026.

*Applicants:* Shell Energy North America (US), L.P., MP2 Energy NE LLC, MP2 Energy LLC, Inspire Energy Holdings, LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of Inspire Energy Holdings, LLC, et al.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5339.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER14-1656-012.

*Applicants:* CSOLAR IV West, LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of CSOLAR IV West, LLC.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5334.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER16-2368-001;

ER16-1888-004.

*Applicants:* Tidal Energy Marketing Inc., New Creek Wind LLC.

*Description:* Triennial Market Power Analysis for the Northeast Region of New Creek Wind LLC, et al.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5333.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER18-1778-001.

*Applicants:* CFE International LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of CFE International LLC.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5330.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER18-2033-002;

ER21-963-002.

*Applicants:* Silverstrand Grid, LLC, Saavi Energy Solutions, LLC.

*Description:* Triennial Market Power Analysis for the Southwest Region of Saavi Energy Solutions, LLC, et al.

*Filed Date:* 6/30/22.

*Accession Number:* 20220630-5329.

*Comment Date:* 5 p.m. ET 8/29/22.

*Docket Numbers:* ER21-1297-003;

ER13-1562-011; ER20-1910-003;

ER20-1911-003; ER20-1915-004;

ER20-1916-004; ER21-1502-001;

ER21-1503-001; ER12-1931-012;

ER10-2504-013; ER12-610-013; ER13-

338-011; ER19-2260-001.

*Applicants:* Valentine Solar, LLC, Shiloh IV Lessee, LLC, Shiloh III Lessee, LLC, Shiloh Wind Project 2, LLC, Pacific Wind Lessee, LLC, Maverick Solar 7, LLC, Maverick Solar 6, LLC, Maverick Solar 4, LLC, Maverick Solar, LLC, Desert Harvest II LLC, Desert Harvest, LLC, Catalina Solar Lessee, LLC, BigBeau Solar, LLC.

*Description:* Triennial Market Power Analysis for Southwest Region of Big Beau Solar, LLC, et al.

*Filed Date:* 6/29/22.

*Accession Number:* 20220629-5193.

*Comment Date:* 5 p.m. ET 8/29/22.

This information collection request contains: (1) *OMB No.*: 1910–5166; (2) *Information Collection Request Title*: Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Commercialization Survey; (3) *Type of Request*: Three-year extension; (4) *Purpose*: The DOE needs this information to satisfy the program requirements of the Small Business Act, including requirements established in the SBIR program reauthorization legislation, Public Law 106–554 and Public Law 107–50. This data will be collected by the DOE and provided to the Small Business Administration (SBA) to maintain information about SBIR/STTR awards issued through the two programs. This data will be provided by DOE based on information collected from SBIR/STTR awardees. This data will be used by DOE, SBA, and Congress to assess the commercial impact of these two programs; (5) *Annual Estimated Number of Respondents*: 1,200; (6) *Annual Estimated Number of Total Responses*: 800; (7) *Annual Estimated Number of Burden Hours*: 1,200; (8) *Annual Estimated Reporting and Recordkeeping Cost Burden*: \$60,000.

*Statutory Authority*: Section 9 of the Small Business Act, as amended, codified at 15 U.S.C. 638(g).

#### Signing Authority

This document of the Department of Energy was signed on May 18, 2021, by Manny Oliver, Director, Office of Small Business Innovation Research and Small Business Technology Transfer, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on May 18, 2021.

**Treena V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

[FR Doc. 2021–10854 Filed 5–21–21; 8:45 am]

**BILLING CODE 6450–01–P**

## DEPARTMENT OF ENERGY

### Agency Information Collection Extension; Revision to Currently Approved Collection

**AGENCY**: U.S. Department of Energy.

**ACTION**: Notice of request for comments.

**SUMMARY**: The Department of Energy (DOE), pursuant to the Paperwork Reduction Act of 1995, intends to extend for three years, an information collection request with the Office of Management and Budget (OMB).

**DATES**: Comments regarding this proposed information collection must be received on or before July 23, 2021. If you anticipate difficulty in submitting comments within that period, contact the person listed below as soon as possible.

**ADDRESSES**: Written comments may be sent to Jonathan Parthum, GC–62, U.S. Department of Energy, 1000 Independence Ave. SW, Washington, DC 20585, by fax at (202) 586–2805, or by email at [jonathan.parthum@hq.doe.gov](mailto:jonathan.parthum@hq.doe.gov).

#### FOR FURTHER INFORMATION CONTACT:

Requests for additional information or copies of the information collection instrument and instructions should be directed by phone to Jonathan Parthum at (202) 586–5120 or by email at [jonathan.parthum@hq.doe.gov](mailto:jonathan.parthum@hq.doe.gov).

**SUPPLEMENTARY INFORMATION**: Comments are invited on: (a) Whether the extended collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden on respondents, including through the use of automated collection techniques or other forms of information technology.

This information collection request contains: (1) *OMB No.*: 1910–0800; (2) *Information Collection Request Title*: Legal Collections; (3) *Type of Review*: Renewal and Revision; (4) *Purpose*: To continue to maintain DOE oversight of responsibilities relating to DOE and Contractor invention reporting and related matters; (5) *Annual Estimated Number of Respondents*: 1525; (6) *Annual Estimated Number of Total Responses*: 1830; (7) *Annual Estimated Number of Burden Hours*: 4412.4; (8) *Annual Estimated Reporting and*

#### Recordkeeping Cost Burden:

\$337,239.73.00.

The revision consists of updates to two documents: DOE F 482.2 and DOE F 2050.11. For DOE F 482.2, the form is modified to add a Patents Rights-Waiver Clause Including U.S. Competitiveness terms and conditions acceptance to the beginning of the document. As for DOE F 2050.11, this form is modified to add the appropriate Paperwork Reduction Act statement that is currently included in each of the other documents within the collection.

*Statutory Authority*: 42 U.S.C. 5908(a) (b) and (c); 37 CFR part 404; 10 CFR part 784.

*Signing Authority*: This document of the Department of Energy was signed on May 18, 2021, by Brian Lally, Assistant General Counsel for Technology Transfer and Intellectual Property, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect on this document upon publication in the **Federal Register**.

Signed in Washington, DC, on May 18, 2021.

**Treena V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

[FR Doc. 2021–10823 Filed 5–21–21; 8:45 am]

**BILLING CODE 6450–01–P**

## DEPARTMENT OF ENERGY

### Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury

**AGENCY**: Office of Environmental Management, Department of Energy.

**ACTION**: Notice of intent.

**SUMMARY**: As required by the *Mercury Export Ban Act of 2008*, as amended (MEBA), the U.S. Department of Energy (DOE) must identify a facility or facilities for the long-term management and storage of elemental mercury generated within the United States. To this end, DOE intends to prepare a supplemental environmental impact statement (DOE/EIS–0423–S2; SEIS–II) to supplement both the January 2011

*Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury* (DOE/EIS-0423; 2011 Mercury Storage EIS) and the September 2013 *Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury* (DOE/EIS-0423-S1; 2013 Mercury Storage SEIS) by updating these previous analyses of potential environmental impacts and analyzing additional alternatives, in accordance with the *National Environmental Policy Act* (NEPA).

**ADDRESSES:** Questions concerning the SEIS-II development or requests to be placed on the SEIS-II distribution list can be sent to: Mrs. Julia Donkin, NEPA Document Manager, Office of Environmental Management, U.S. Department of Energy, EM-4.22, 1000 Independence Avenue SW, Washington, DC 20585, [elementalmercury\\_nepa@em.doe.gov](mailto:elementalmercury_nepa@em.doe.gov) or (202) 586-5000.

Questions related to DOE's elemental mercury program should be directed to Mr. David Haught, Mercury Program Manager, Office of Environmental Management, U.S. Department of Energy, EM-4.22, 1000 Independence Avenue SW, Washington, DC 20585, [David.Haught@hq.doe.gov](mailto:David.Haught@hq.doe.gov) or (202) 586-5000.

**FOR FURTHER INFORMATION CONTACT:** Additional information regarding the SEIS-II, the 2011 Mercury Storage EIS, 2013 Mercury Storage SEIS, other related documents, and the scope of DOE's elemental mercury program is available online at <https://www.energy.gov/nepa/doeis-0423-long-term-management-and-storage-elemental-mercury>. For general information concerning DOE's Office of Environmental Management NEPA process, please contact Mr. William Ostrum, Office of Environmental Management NEPA Compliance Officer, U.S. Department of Energy, EM-4.31, 1000 Independence Avenue SW, Washington, DC 20585, [William.Ostrum@hq.doe.gov](mailto:William.Ostrum@hq.doe.gov) or (202) 586-2513.

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

The *Mercury Export Ban Act of 2008* (Pub. L. 110-414), as amended by the *Frank R. Lautenberg Chemical Safety for the 21st Century Act* (Pub. L. 114-182) (MEBA), amends the *Toxic Substances Control Act* (TSCA; 15 U.S.C. 2601-2629) to prohibit the sale, distribution, or transfer by Federal agencies to any other Federal agency, any state or local government agency, or any private individual or entity, of any elemental mercury under the control or

jurisdiction of a Federal agency (with certain limited exceptions). MEBA also amends TSCA to prohibit the export of elemental mercury from the United States (with certain limited exceptions). Section 5 of MEBA, "Long-Term Storage" (42 U.S.C. 6939f), is codified with the *Resource Conservation and Recovery Act* (RCRA; 42 U.S.C. 6901 *et seq.*) and directs DOE to designate a facility or facilities for the long-term management and storage of elemental mercury generated within the United States. MEBA also requires DOE to assess a fee based upon the pro rata costs of long-term management and storage of elemental mercury delivered to the facility or facilities.

The primary sources of elemental mercury in the United States include elemental mercury generated as a byproduct of the gold mining process and mercury reclaimed from recycling and waste recovery activities. In addition, DOE's National Nuclear Security Administration (NNSA) stores approximately 1,200 metric tons of elemental mercury at the Oak Ridge Reservation in Tennessee, which was generated in support of NNSA's mission.

The 2011 Mercury Storage EIS evaluated seven candidate locations for the elemental mercury storage facility, as well as a No Action Alternative. The locations included new facility construction, use of existing facilities, or both. The candidate locations were: DOE Grand Junction Disposal site near Grand Junction, Colorado (new construction); DOE Hanford Site near Richland, Washington (new construction); Hawthorne Army Depot near Hawthorne, Nevada (existing facility); DOE Idaho National Laboratory near Idaho Falls, Idaho (new construction and existing facility); Bannister Federal Complex in Kansas City, Missouri (existing facility); DOE Savannah River Site near Aiken, South Carolina (new construction); and the Waste Control Specialists LLC (WCS) site near Andrews, Texas (new construction and existing facility).

The 2013 Mercury Storage SEIS evaluated three additional alternative locations, at and in the vicinity of the Waste Isolation Pilot Plant near Carlsbad, New Mexico (all new construction). The 2013 Mercury Storage SEIS also updated the analysis of the alternatives presented in the 2011 Mercury Storage EIS.

For the 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS, DOE estimated that up to approximately 10,000 metric tons of elemental mercury would need to be managed and stored

at the DOE facility during the 40-year period of analysis.

On December 6, 2019, DOE issued a Record of Decision (ROD) to document its designation of the WCS site near Andrews, Texas, for the management and storage of up to 6,800 metric tons of elemental mercury in leased portions of existing buildings, the Container Storage Building and Bin Storage Unit 1, at the WCS site (84 FR 66890). The ROD was supported by DOE's *Supplemental Analysis of the Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423-SA-1), which determined that the long-term management and storage of up to 6,800 metric tons of elemental mercury in existing buildings at the WCS facility would not constitute a substantial change from the proposal evaluated in the 2011 Mercury Storage EIS and updated in the 2013 Mercury Storage SEIS. On December 23, 2019, DOE published a final rule to establish the fee for long-term management and storage of elemental mercury (84 FR 70402; Fee Rule).

Two domestic generators of elemental mercury subsequently filed complaints in United States District Court challenging, among other things, the validity of the Fee Rule and the ROD (*Coeur Rochester, Inc. v. Brouillette et al.*, Case No. 1:19-cv-03860-RJL (D.D.C. filed December 31, 2019); *Nevada Gold Mines LLC v. Brouillette et al.*, Case No. 1:20-cv-00141-RJL (D.D.C. filed January 17, 2020)). On August 21, 2020, DOE and Nevada Gold Mines, LLC (NGM) executed a settlement agreement intended to resolve NGM's complaint in its entirety. Consistent with that agreement, on September 3, 2020, DOE filed a motion in the District Court asking the Court to vacate and remand the Fee Rule. The District Court granted the motion to vacate and remand the Fee Rule on September 5, 2020. Given the rulemaking process required to establish a fee for the long-term management and storage of elemental mercury, and the expiration of DOE's current lease with WCS in June 2021, DOE also agreed in the settlement with NGM to withdraw the designation of WCS pursuant to MEBA Section 5(a)(1) as a facility of DOE for the purpose of long-term management and storage of elemental mercury. DOE subsequently withdrew the designation of WCS under MEBA in an amended ROD on October 6, 2020 (85 FR 63105). The District Court granted a joint stipulation to dismiss the litigation from Coeur Rochester, Inc. on April 23, 2021.

### Purpose and Need for Action

DOE must designate a facility for the long-term management and storage of elemental mercury generated within the United States, as required by MEBA. MEBA also requires DOE to assess and collect a fee to cover certain costs of long-term management and storage of elemental mercury.

MEBA establishes that by January 1, 2019, a DOE-designated facility shall be operational and accept custody, for the purpose of long-term management and storage, of elemental mercury generated within the United States. Fiscal Year 2021 Appropriations Act Explanatory Statements for Division D, Energy and Water Development and Related Agencies, includes the following statement, “The Department [DOE] is directed to finalize the Fee Rule for mercury storage as expeditiously as possible.”

### Proposed Action

DOE proposes to designate one or more facilities for the long-term management and storage of elemental mercury in accordance with MEBA. Facilities must comply with applicable requirements of Section 5(d) of MEBA, “Management Standards for a Facility,” including the requirements of the *Solid Waste Disposal Act* as amended by RCRA, and other state-specific permitting requirements. Consistent with the Supplement Analysis prepared in 2019 but updated to account for accumulation of elemental mercury since then, the SEIS–II will evaluate the potential environmental impacts of an estimated inventory of up to 7,000 metric tons of elemental mercury that could require management and storage during the 40-year period of analysis.

After completion of DOE’s Proposed Action, DOE would establish the fee for long-term management and storage of elemental mercury through rulemaking conducted pursuant to the Administrative Procedure Act (5 U.S.C. 551 *et seq.*). DOE would evaluate the potential environmental impacts of the rulemaking in accordance with NEPA implementing procedures at 10 CFR 1021.213.

### Proposed Alternatives

The 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS evaluated both new construction and the designation of existing facilities for management and storage of elemental mercury. In the SEIS–II, DOE’s range of reasonable alternatives includes existing facilities that could be designated with only minor modifications to meet the permitting requirements for elemental

mercury storage. Construction of new facilities would further negatively impact the schedule for DOE’s receipt of elemental mercury, which was required by MEBA to begin acceptance by January 2019.

Of the four existing facilities evaluated in the 2011 Mercury Storage EIS, two remain as reasonable alternatives. Since 2011, portions of the Bannister Federal Complex in Kansas City have been transferred from DOE to a private entity and rezoned as an urban redevelopment district. Therefore, this facility is no longer considered a reasonable alternative for the storage of elemental mercury. Additionally, the planning basis for the existing facilities at the Idaho National Laboratory Radioactive Waste Management Complex (RWMC) has changed and those facilities are no longer considered a reasonable alternative for storage of elemental mercury. DOE is planning to demolish these facilities and close the RWMC once its current radioactive waste mission is completed. Therefore, the SEIS–II will update the analysis for the Hawthorne Army Depot in Nevada and the WCS site in Texas.

In addition to the two sites identified previously, the SEIS–II will also evaluate other facilities that maintain or would be capable of maintaining a RCRA Part B permit for the long-term management and storage of elemental mercury. DOE used four methods to identify these additional facilities: (1) DOE contacted commercial facilities that had previously certified to DOE that they meet the requirements to accept and store elemental mercury at least until the DOE-designated facility opens (<https://www.energy.gov/em/downloads/permitted-mercury-storage-facility-notifications>); (2) on December 3, 2020, DOE issued basic ordering agreements to companies to conduct nationwide waste management services, including ancillary services such as management and storage of elemental mercury; (3) on October 14, 2020, DOE issued a Sources Sought Synopsis/Request for Information to identify potential offerors to provide leased space and associated services for the management and storage of elemental mercury; and (4) DOE is re-evaluating existing facilities on DOE property that could be repurposed for management and storage of elemental mercury. Past and ongoing procurement actions were used only to assist in the identification of potential reasonable alternatives for consideration in the SEIS. They do not have a bearing on what future procurement actions that DOE would take to contract for services related to

long-term management and storage of elemental mercury.

Through these outreach efforts, DOE has identified the following additional reasonable alternative locations that will be evaluated in the SEIS–II (in addition to those previously evaluated as discussed previously):

- Bethlehem Apparatus in Bethlehem, Pennsylvania;
- Clean Harbors (facilities in Pecatonica, Illinois; Greenbrier, Tennessee; and Tooele, Utah);
- Veolia North America in Gum Springs, Arkansas; and
- Perma-Fix Diversified Scientific Services, Inc., in Kingston, Tennessee.

As part of the SEIS–II, DOE will update the analysis of the No-Action Alternative.

### Potential Areas of Environmental Analysis

DOE has tentatively identified the following resource areas for analysis in the SEIS–II. The following list is not intended to be comprehensive or to pre-determine the potential impacts to be analyzed: Land use and visual resources; geology and soils; water resources; air quality and noise; ecological resources; cultural and paleontological resources; infrastructure; waste management; occupational and public health and safety; socioeconomic; transportation; and environmental justice.

### NEPA Process and Public Participation in the SEIS–II

DOE will prepare the SEIS–II in accordance with the Council on Environmental Quality (CEQ) regulations at 40 CFR parts 1500–1508<sup>1</sup> and DOE NEPA implementing procedures at 10 CFR part 1021. In accordance with 10 CFR 1021.311(f), a public scoping process is not required for a DOE-issued SEIS. DOE will issue a **Federal Register** notice detailing the release of the draft SEIS–II, dates of one or more internet-based public hearings, and directions on submitting public comments. DOE expects to issue the Draft SEIS–II in late 2021.

### Signing Authority

This document of the Department of Energy was signed on May 17, 2021, by Mark Gilbertson, Associate Principal Deputy Assistant Secretary for Regulatory and Policy Affairs, pursuant

<sup>1</sup> On July 16, 2020, the CEQ issued a final rule to update its regulations for Federal agencies to implement NEPA (85 FR 43304). The effective date for the new regulations is September 14, 2020. Because the SEIS–II was initiated after that effective date, it will be prepared in accordance with the new CEQ regulations.

to delegated authority from the Secretary of the Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with the requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on May 19, 2021.

**Treena V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

[FR Doc. 2021-10905 Filed 5-21-21; 8:45 am]

**BILLING CODE 6450-01-P**

## DEPARTMENT OF ENERGY

### Energy Information Administration

#### Agency Information Collection Extension

**AGENCY:** Energy Information Administration (EIA), Department of Energy (DOE).

**ACTION:** Notice.

**SUMMARY:** EIA submitted an information collection request for extension as required by the Paperwork Reduction Act of 1995. The information collection requests a three-year extension of its Form EIA-111 *Quarterly Electricity Imports and Exports Report*, OMB Control Number 1905-0208. Form EIA-111 collects information on U.S. imports and exports of electricity. Data are used to obtain estimates on the flows of electricity into and out of the United States.

**DATES:** Comments on this information collection must be received no later than June 23, 2021. Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting "Currently under 30-day Review—Open for Public Comments" or by using the search function.

**FOR FURTHER INFORMATION CONTACT:** If you need additional information, contact Tosha Beckford at (202) 287-6597 or by email at [tosha.beckford@eia.gov](mailto:tosha.beckford@eia.gov). The forms and instructions are available on EIA's website at <http://www.eia.gov/survey/changes/electricity/>.

**SUPPLEMENTARY INFORMATION:** This information collection request contains

(1) *OMB No.:* 1905-0208;

(2) *Information Collection Request Title:* Quarterly Electricity Imports and Exports Report;

(3) *Type of Request:* Three-year extension without change;

(4) *Purpose:* Form EIA-111 collects U.S. electricity import and export data on a quarterly basis. The data are used to measure the flow of electricity into and out of the United States. The import and export data are reported by U.S. purchasers, sellers and transmitters of wholesale electricity, including persons authorized by Order to export electric energy from the United States to foreign countries, persons authorized by Presidential Permit to construct, operate, maintain, or connect electric power transmission lines that cross the U.S. international border, and U.S. Balancing Authorities that are directly interconnected with foreign Balancing Authorities. Such entities report monthly flows of electric energy received or delivered across the border, the cost associated with the transactions, and actual and implemented interchange.

(4a) *Proposed Changes to Information Collection:* No changes;

(5) *Annual Estimated Number of Respondents:* 180;

(6) *Annual Estimated Number of Total Responses:* 720;

(7) *Annual Estimated Number of Burden Hours:* 1,080;

(8) *Annual Estimated Reporting and Recordkeeping Cost Burden:* \$88,182 (1,080 burden hours times \$81.65 per hour). EIA estimates that respondents will have no additional costs associated with the surveys other than the burden hours and the maintenance of the information as part of the normal course of business.

*Comments are invited on whether or not:* (a) The proposed collection of information is necessary for the proper performance of agency functions, including whether the information will have a practical utility; (b) EIA's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used, is accurate; (c) EIA can improve the quality, utility, and clarity of the information it will collect; and (d) EIA can minimize the burden of the collection of information on respondents, such as automated collection techniques or other forms of information technology.

**Statutory Authority:** 15 U.S.C. 772(b), 42 U.S.C. 7101 *et seq.*

Signed in Washington, DC, on May 18, 2021.

**Samson A. Adeshiyan,**

*Director, Office of Statistical Methods and Research, U. S. Energy Information Administration.*

[FR Doc. 2021-10884 Filed 5-21-21; 8:45 am]

**BILLING CODE 6450-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Docket No. ER21-1916-000]

#### Assembly Solar III, LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

This is a supplemental notice in the above-referenced Assembly Solar III, LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is June 7, 2021.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

**Department of Energy**

Washington, DC 20585

May 3, 2021

## MEMORANDUM FOR DISTRIBUTION

FROM: WILLIAM I. WHITE  
ACTING ASSISTANT SECRETARY  
FOR ENVIRONMENTAL MANAGEMENT

A handwritten signature in blue ink, appearing to read "William I. White".

SUBJECT: Identification of Potential Long-Term Storage Facilities for  
Elemental Mercury

This memorandum requests your assistance in the identification of existing Department of Energy (DOE) facilities that are potentially available for the long-term storage of elemental (non-radioactive) mercury. Section 5(a)(1) of the Mercury Export Ban Act (MEBA), 42 U.S.C. §6939f(a)(1), as amended, directed DOE to provide a facility or facilities for the storage of elemental mercury generated in the U.S., but specifically prohibits the facility from being sited on the Oak Ridge Reservation.

On March 30, 2009, the Assistant Secretary for Environmental Management (EM), requested a list of viable candidate facilities and areas for consideration from DOE field element managers and sought interest from parties outside of DOE. EM evaluated multiple reasonable alternatives in accordance with the National Environmental Policy Act in 2011, 2013, and 2019. In December 2019 a leased portion of an existing facility on the Waste Control Specialists, LLC (WCS) site in Andrews County, Texas, was designated as the elemental mercury storage facility of DOE under MEBA. The designation was challenged in complaints filed by two domestic generators of elemental mercury in U.S. District Court, and DOE subsequently withdrew the designation of WCS. Consequently, EM has initiated a second Supplemental Environmental Impact Statement (SEIS-II) and is in the process of identifying viable existing facilities at Federal and commercial sites as reasonable alternatives to support designation of a long-term storage facility under MEBA. The SEIS-II will evaluate only existing facilities as reasonable alternatives (no new construction) due to the need to begin accepting elemental mercury as soon as possible.

The minimum requirements, fully or with minor modifications, for potential elemental mercury storage facilities are as follows:

- 1) capability to be permitted within a year of the designation, for the storage of elemental mercury in accordance with the Resource Conservation and Recovery Act;
- 2) availability for a period of up to 40 years;
- 3) minimum of 1,200 metric ton (MT) dedicated storage capacity;
- 4) security and access control and fire suppression systems;
- 5) ventilated storage and handling areas;
- 6) enclosed weather-protected buildings; and

- 7) reinforced concrete floors able to withstand structural loads of mercury storage (minimum of 500 pounds per square foot based on single stacked, 1 MT ton containers).

Please respond to the EM Office of Waste Disposal, EM-4.22, by May 22, 2021, with a listing of any existing facilities within your existing program mission constraints that meet these requirements. Negative responses are also requested. Your response or questions should be directed to Mr. David Haught, the DOE elemental mercury program lead, at (301) 903-1765 or [David.haught@hq.doe.gov](mailto:David.haught@hq.doe.gov).

Distribution

Charles P. Verdon, Acting Under Secretary for Nuclear Security and Administrator, NNSA  
Carmelo Melendez, Director, Office of Legacy Management  
Dennis Miotla, Acting Assistant Secretary for Nuclear Energy  
J. Stephen Binkley, Acting Director, Office of Science  
Reinhard Knerr, Manager, Carlsbad Field Office  
Jack Zimmerman, Director, Environmental Management Consolidated Business Center  
Connie M. Flohr, Manager, Idaho Cleanup Project  
Kirk Lachman, Manager for Environmental Management, Los Alamos Field Office  
Brian T. Vance, Manager, Office of River Protection  
Robert E. Edwards III, Manager, Portsmouth/Paducah Project Office  
Brian T. Vance, Manager, Richland Operations Office  
Michael D. Budney, Manager, Savannah River Operations Office

cc: John Mullis, OR  
Todd Shrader, EM-2  
Erik Olds, EM-2.1 COS (Acting)  
Nicole Nelson-Jean, EM-3  
Mark Gilbertson, EM-4  
Dae Chung, EM-5  
R. M. Hendrickson, EM-5  
Gregory Sosson, EM-3.1  
Catherine Hampton, EM-5.3 (Acting)



Public Law 110-414  
110th Congress

An Act

To prohibit the sale, distribution, transfer, and export of elemental mercury, and for other purposes.

Oct. 14, 2008  
[S. 906]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

Mercury Export  
Ban Act of 2008.  
15 USC 2601  
note.

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “Mercury Export Ban Act of 2008”.

**SEC. 2. FINDINGS.**

15 USC 2611  
note.

Congress finds that—

(1) mercury is highly toxic to humans, ecosystems, and wildlife;

(2) as many as 10 percent of women in the United States of childbearing age have mercury in the blood at a level that could put a baby at risk;

(3) as many as 630,000 children born annually in the United States are at risk of neurological problems related to mercury;

(4) the most significant source of mercury exposure to people in the United States is ingestion of mercury-contaminated fish;

(5) the Environmental Protection Agency reports that, as of 2004—

(A) 44 States have fish advisories covering over 13,000,000 lake acres and over 750,000 river miles;

(B) in 21 States the freshwater advisories are statewide; and

(C) in 12 States the coastal advisories are statewide;

(6) the long-term solution to mercury pollution is to minimize global mercury use and releases to eventually achieve reduced contamination levels in the environment, rather than reducing fish consumption since uncontaminated fish represents a critical and healthy source of nutrition worldwide;

(7) mercury pollution is a transboundary pollutant, depositing locally, regionally, and globally, and affecting water bodies near industrial sources (including the Great Lakes) and remote areas (including the Arctic Circle);

(8) the free trade of elemental mercury on the world market, at relatively low prices and in ready supply, encourages the continued use of elemental mercury outside of the United States, often involving highly dispersive activities such as artisanal gold mining;

(9) the intentional use of mercury is declining in the United States as a consequence of process changes to manufactured products (including batteries, paints, switches, and measuring devices), but those uses remain substantial in the developing world where releases from the products are extremely likely due to the limited pollution control and waste management infrastructures in those countries;

(10) the member countries of the European Union collectively are the largest source of elemental mercury exports globally;

(11) the European Commission has proposed to the European Parliament and to the Council of the European Union a regulation to ban exports of elemental mercury from the European Union by 2011;

(12) the United States is a net exporter of elemental mercury and, according to the United States Geological Survey, exported 506 metric tons of elemental mercury more than the United States imported during the period of 2000 through 2004; and

(13) banning exports of elemental mercury from the United States will have a notable effect on the market availability of elemental mercury and switching to affordable mercury alternatives in the developing world.

**SEC. 3. PROHIBITION ON SALE, DISTRIBUTION, OR TRANSFER OF ELEMENTAL MERCURY.**

Section 6 of the Toxic Substances Control Act (15 U.S.C. 2605) is amended by adding at the end the following:

“(f) MERCURY.—

Effective date.

“(1) PROHIBITION ON SALE, DISTRIBUTION, OR TRANSFER OF ELEMENTAL MERCURY BY FEDERAL AGENCIES.—Except as provided in paragraph (2), effective beginning on the date of enactment of this subsection, no Federal agency shall convey, sell, or distribute to any other Federal agency, any State or local government agency, or any private individual or entity any elemental mercury under the control or jurisdiction of the Federal agency.

“(2) EXCEPTIONS.—Paragraph (1) shall not apply to—

“(A) a transfer between Federal agencies of elemental mercury for the sole purpose of facilitating storage of mercury to carry out this Act; or

“(B) a conveyance, sale, distribution, or transfer of coal.

“(3) LEASES OF FEDERAL COAL.—Nothing in this subsection prohibits the leasing of coal.”.

**SEC. 4. PROHIBITION ON EXPORT OF ELEMENTAL MERCURY.**

Section 12 of the Toxic Substances Control Act (15 U.S.C. 2611) is amended—

(1) in subsection (a) by striking “subsection (b)” and inserting “subsections (b) and (c)”; and

(2) by adding at the end the following:

“(c) PROHIBITION ON EXPORT OF ELEMENTAL MERCURY.—

Effective date.

“(1) PROHIBITION.—Effective January 1, 2013, the export of elemental mercury from the United States is prohibited.

“(2) INAPPLICABILITY OF SUBSECTION (a).—Subsection (a) shall not apply to this subsection.

“(3) REPORT TO CONGRESS ON MERCURY COMPOUNDS.—

“(A) REPORT.—Not later than one year after the date of enactment of the Mercury Export Ban Act of 2008, the Administrator shall publish and submit to Congress a report on mercuric chloride, mercurous chloride or calomel, mercuric oxide, and other mercury compounds, if any, that may currently be used in significant quantities in products or processes. Such report shall include an analysis of—

Publication.

“(i) the sources and amounts of each of the mercury compounds imported into the United States or manufactured in the United States annually;

“(ii) the purposes for which each of these compounds are used domestically, the amount of these compounds currently consumed annually for each purpose, and the estimated amounts to be consumed for each purpose in 2010 and beyond;

“(iii) the sources and amounts of each mercury compound exported from the United States annually in each of the last three years;

“(iv) the potential for these compounds to be processed into elemental mercury after export from the United States; and

“(v) other relevant information that Congress should consider in determining whether to extend the export prohibition to include one or more of these mercury compounds.

“(B) PROCEDURE.—For the purpose of preparing the report under this paragraph, the Administrator may utilize the information gathering authorities of this title, including sections 10 and 11.

“(4) ESSENTIAL USE EXEMPTION.—(A) Any person residing in the United States may petition the Administrator for an exemption from the prohibition in paragraph (1), and the Administrator may grant by rule, after notice and opportunity for comment, an exemption for a specified use at an identified foreign facility if the Administrator finds that—

“(i) nonmercury alternatives for the specified use are not available in the country where the facility is located;

“(ii) there is no other source of elemental mercury available from domestic supplies (not including new mercury mines) in the country where the elemental mercury will be used;

“(iii) the country where the elemental mercury will be used certifies its support for the exemption;

“(iv) the export will be conducted in such a manner as to ensure the elemental mercury will be used at the identified facility as described in the petition, and not otherwise diverted for other uses for any reason;

“(v) the elemental mercury will be used in a manner that will protect human health and the environment, taking into account local, regional, and global human health and environmental impacts;

“(vi) the elemental mercury will be handled and managed in a manner that will protect human health and the environment, taking into account local, regional, and global human health and environmental impacts; and

“(vii) the export of elemental mercury for the specified use is consistent with international obligations of the United States intended to reduce global mercury supply, use, and pollution.

“(B) Each exemption issued by the Administrator pursuant to this paragraph shall contain such terms and conditions as are necessary to minimize the export of elemental mercury and ensure that the conditions for granting the exemption will be fully met, and shall contain such other terms and conditions as the Administrator may prescribe. No exemption granted pursuant to this paragraph shall exceed three years in duration and no such exemption shall exceed 10 metric tons of elemental mercury.

“(C) The Administrator may by order suspend or cancel an exemption under this paragraph in the case of a violation described in subparagraph (D).

“(D) A violation of this subsection or the terms and conditions of an exemption, or the submission of false information in connection therewith, shall be considered a prohibited act under section 15, and shall be subject to penalties under section 16, injunctive relief under section 17, and citizen suits under section 20.

“(5) CONSISTENCY WITH TRADE OBLIGATIONS.—Nothing in this subsection affects, replaces, or amends prior law relating to the need for consistency with international trade obligations.

“(6) EXPORT OF COAL.—Nothing in this subsection shall be construed to prohibit the export of coal.”.

Deadline.  
42 USC 6939f.

#### 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 the Department of Energy, for the purpose of long-term management and storage of elemental mercury generated within the United States.

(2) OPERATION OF FACILITY.—Not later than January 1, 2013, the facility designated in paragraph (1) shall be operational and shall accept custody, for the purpose of long-term management and storage, of elemental mercury generated within the United States and delivered to such facility.

##### (b) FEES.—

(1) IN GENERAL.—After consultation with persons who are likely to deliver elemental mercury to a designated facility for long-term management and storage under the program prescribed in subsection (a), and with other interested persons, the Secretary shall assess and collect a fee at the time of delivery for providing such management and storage, based on the pro rata cost of long-term management and storage of elemental mercury delivered to the facility. The amount of such fees—

(A) shall be made publically available not later than October 1, 2012;

(B) may be adjusted annually; and

Public  
information.

(C) shall be set in an amount sufficient to cover the costs described in paragraph (2).

(2) COSTS.—The costs referred to in paragraph (1)(C) are the costs to the Department of Energy of providing such management and storage, including facility operation and maintenance, security, monitoring, reporting, personnel, administration, inspections, training, fire suppression, closure, and other costs required for compliance with applicable law. Such costs shall not include costs associated with land acquisition or permitting of a designated facility under the Solid Waste Disposal Act or other applicable law. Building design and building construction costs shall only be included to the extent that the Secretary finds that the management and storage of elemental mercury accepted under the program under this section cannot be accomplished without construction of a new building or buildings.

(c) REPORT.—Not later than 60 days after the end of each Federal fiscal year, the Secretary shall transmit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on all of the costs incurred in the previous fiscal year associated with the long-term management and storage of elemental mercury. Such report shall set forth separately the costs associated with activities taken under this section.

(d) MANAGEMENT STANDARDS FOR A FACILITY.—

(1) GUIDANCE.—Not later than October 1, 2009, the Secretary, after consultation with the Administrator of the Environmental Protection Agency and all appropriate State agencies in affected States, shall make available, including to potential users of the long-term management and storage program established under subsection (a), guidance that establishes procedures and standards for the receipt, management, and long-term storage of elemental mercury at a designated facility or facilities, including requirements to ensure appropriate use of flasks or other suitable shipping containers. Such procedures and standards shall be protective of human health and the environment and shall ensure that the elemental mercury is stored in a safe, secure, and effective manner. In addition to such procedures and standards, elemental mercury managed and stored under this section at a designated facility shall be subject to the requirements of the Solid Waste Disposal Act, including the requirements of subtitle C of that Act, except as provided in subsection (g)(2) of this section. 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.

Procedures.  
Standards.

Deadline.

(2) TRAINING.—The Secretary shall conduct operational training and emergency training for all staff that have responsibilities related to elemental mercury management, transfer, storage, monitoring, or response.

(3) EQUIPMENT.—The Secretary shall ensure that each designated facility has all equipment necessary for routine operations, emergencies, monitoring, checking inventory, loading, and storing elemental mercury at the facility.

(4) FIRE DETECTION AND SUPPRESSION SYSTEMS.—The Secretary shall—

(A) ensure the installation of fire detection systems at each designated facility, including smoke detectors and heat detectors; and

(B) ensure the installation of a permanent fire suppression system, unless the Secretary determines that a permanent fire suppression system is not necessary to protect human health and the environment.

(e) INDEMNIFICATION OF PERSONS DELIVERING ELEMENTAL MERCURY.—

(1) IN GENERAL.—(A) Except as provided in subparagraph (B) and subject to paragraph (2), the Secretary shall hold harmless, defend, and indemnify in full any person who delivers elemental mercury to a designated facility under the program established under subsection (a) from and against any suit, claim, demand or action, liability, judgment, cost, or other fee arising out of any claim for personal injury or property damage (including death, illness, or loss of or damage to property or economic loss) that results from, or is in any manner predicated upon, the release or threatened release of elemental mercury as a result of acts or omissions occurring after such mercury is delivered to a designated facility described in subsection (a).

(B) To the extent that a person described in subparagraph (A) contributed to any such release or threatened release, subparagraph (A) shall not apply.

(2) CONDITIONS.—No indemnification may be afforded under this subsection unless the person seeking indemnification—

(A) notifies the Secretary in writing within 30 days after receiving written notice of the claim for which indemnification is sought;

(B) furnishes to the Secretary copies of pertinent papers the person receives;

(C) furnishes evidence or proof of any claim, loss, or damage covered by this subsection; and

(D) provides, upon request by the Secretary, access to the records and personnel of the person for purposes of defending or settling the claim or action.

(3) AUTHORITY OF SECRETARY.—(A) In any case in which the Secretary determines that the Department of Energy may be required to make indemnification payments to a person under this subsection for any suit, claim, demand or action, liability, judgment, cost, or other fee arising out of any claim for personal injury or property damage referred to in paragraph (1)(A), the Secretary may settle or defend, on behalf of that person, the claim for personal injury or property damage.

(B) In any case described in subparagraph (A), if the person to whom the Department of Energy may be required to make indemnification payments does not allow the Secretary to settle or defend the claim, the person may not be afforded indemnification with respect to that claim under this subsection.

Records.

Notification.  
Deadline.

(f) **TERMS, CONDITIONS, AND PROCEDURES.**—The Secretary is authorized to establish such terms, conditions, and procedures as are necessary to carry out this section.

(g) **EFFECT ON OTHER LAW.**—

(1) **IN GENERAL.**—Except as provided in paragraph (2), nothing in this section changes or affects any Federal, State, or local law or the obligation of any person to comply with such law.

(2) **EXCEPTION.**—(A) Elemental mercury that the Secretary is storing on a long-term basis shall not be subject to the storage prohibition of section 3004(j) of the Solid Waste Disposal Act (42 U.S.C. 6924(j)). For the purposes of section 3004(j) of the Solid Waste Disposal Act, a generator accumulating elemental mercury destined for a facility designated by the Secretary under subsection (a) for 90 days or less shall be deemed to be accumulating the mercury to facilitate proper treatment, recovery, or disposal.

(B) Elemental mercury may be stored at a facility with respect to which any permit has been issued under section 3005(c) of the Solid Waste Disposal Act (42 U.S.C. 6925(c)), and shall not be subject to the storage prohibition of section 3004(j) of the Solid Waste Disposal Act (42 U.S.C. 6924(j)) if—

Certification.

(i) the Secretary is unable to accept the mercury at a facility designated by the Secretary under subsection (a) for reasons beyond the control of the owner or operator of the permitted facility;

(ii) the owner or operator of the permitted facility certifies in writing to the Secretary that it will ship the mercury to the designated facility when the Secretary is able to accept the mercury; and

(iii) the owner or operator of the permitted facility certifies in writing to the Secretary that it will not sell, or otherwise place into commerce, the mercury.

This subparagraph shall not apply to mercury with respect to which the owner or operator of the permitted facility fails to comply with a certification provided under clause (ii) or (iii).

(h) **STUDY.**—Not later than July 1, 2014, the Secretary shall transmit to the Congress the results of a study, conducted in consultation with the Administrator of the Environmental Protection Agency, that—

Deadline.

(1) determines the impact of the long-term storage program under this section on mercury recycling; and

(2) includes proposals, if necessary, to mitigate any negative impact identified under paragraph (1).

#### **SEC. 6. REPORT TO CONGRESS.**

At least 3 years after the effective date of the prohibition on export of elemental mercury under section 12(c) of the Toxic Substances Control Act (15 U.S.C. 2611(c)), as added by section 4 of this Act, but not later than January 1, 2017, the Administrator of the Environmental Protection Agency shall transmit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the global supply and trade of elemental mercury, including but not limited to the amount of elemental mercury

traded globally that originates from primary mining, where such primary mining is conducted, and whether additional primary mining has occurred as a consequence of this Act.

Approved October 14, 2008.

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LEGISLATIVE HISTORY—S. 906:

SENATE REPORTS: No. 110-477 (Comm. on Environment and Public Works).

CONGRESSIONAL RECORD, Vol. 154 (2008):

Sept. 26, considered and passed Senate.

Sept. 27, 29, considered and passed House.



PUBLIC LAW 114–182—JUNE 22, 2016

FRANK R. LAUTENBERG CHEMICAL SAFETY  
FOR THE 21ST CENTURY ACT

Public Law 114–182  
114th Congress

An Act

June 22, 2016  
[H.R. 2576]

Frank R.  
Lautenberg  
Chemical Safety  
for the 21st  
Century Act.  
15 USC 2601  
note.

To modernize the Toxic Substances Control Act, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Frank R. Lautenberg Chemical Safety for the 21st Century Act”.

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents.

**TITLE I—CHEMICAL SAFETY**

Sec. 2. Findings, policy, and intent.

Sec. 3. Definitions.

Sec. 4. Testing of chemical substances and mixtures.

Sec. 5. Manufacturing and processing notices.

Sec. 6. Prioritization, risk evaluation, and regulation of chemical substances and mixtures.

Sec. 7. Imminent hazards.

Sec. 8. Reporting and retention of information.

Sec. 9. Relationship to other Federal laws.

Sec. 10. Exports of elemental mercury.

Sec. 11. Confidential information.

Sec. 12. Penalties.

Sec. 13. State-Federal relationship.

Sec. 14. Judicial review.

Sec. 15. Citizens’ civil actions.

Sec. 16. Studies.

Sec. 17. Administration of the Act.

Sec. 18. State programs.

Sec. 19. Conforming amendments.

Sec. 20. No retroactivity.

Sec. 21. Trevor’s Law.

**TITLE II—RURAL HEALTHCARE CONNECTIVITY**

Sec. 201. Short title.

Sec. 202. Telecommunications services for skilled nursing facilities.

**TITLE I—CHEMICAL SAFETY**

**SEC. 2. FINDINGS, POLICY, AND INTENT.**

Section 2(c) of the Toxic Substances Control Act (15 U.S.C. 2601(c)) is amended by striking “proposes to take” and inserting “proposes as provided”.

**SEC. 3. DEFINITIONS.**

Section 3 of the Toxic Substances Control Act (15 U.S.C. 2602) is amended—

(1) by redesignating paragraphs (4) through (14) as paragraphs (5), (6), (8), (9), (10), (11), (13), (14), (15), (16), and (17), respectively;

(2) by inserting after paragraph (3) the following:

“(4) The term ‘conditions of use’ means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.”;

(3) by inserting after paragraph (6), as so redesignated, the following:

“(7) The term ‘guidance’ means any significant written guidance of general applicability prepared by the Administrator.”; and

(4) by inserting after paragraph (11), as so redesignated, the following:

“(12) The term ‘potentially exposed or susceptible subpopulation’ means a group of individuals within the general population identified by the Administrator who, due to either greater susceptibility or greater exposure, may be at greater risk than the general population of adverse health effects from exposure to a chemical substance or mixture, such as infants, children, pregnant women, workers, or the elderly.”.

#### SEC. 4. TESTING OF CHEMICAL SUBSTANCES AND MIXTURES.

Section 4 of the Toxic Substances Control Act (15 U.S.C. 2603) is amended—

(1) by striking “standards” each place it appears and inserting “protocols and methodologies”;

(2) in subsection (a)—

(A) by striking “If the Administrator finds” and inserting “(1) If the Administrator finds”;

(B) in paragraph (1), as so designated—

(i) by striking “(1)(A)(i)” and inserting “(A)(i)(I)”;

(ii) by striking “(ii)” each place it appears and inserting “(II)”;

(iii) by striking “are insufficient data” and inserting “is insufficient information” each place it appears;

(iv) by striking “(iii)” each place it appears and inserting “(III)”;

(v) by striking “such data” and inserting “such information” each place it appears;

(vi) by striking “(B)(i)” and inserting “(ii)(I)”;

(vii) by striking “(I)” and inserting “(aa)”;

(viii) by striking “(II)” and inserting “(bb)”;

(ix) by striking “(2)” and inserting “(B)”;

(x) in the matter following subparagraph (B), as so redesignated—

(I) by inserting “, or, in the case of a chemical substance or mixture described in subparagraph (A)(i), by rule, order, or consent agreement,” after “rule”;

(II) by striking “data” each place it appears and inserting “information”; and

(III) by striking “and which are relevant” and inserting “and which is relevant”; and

(C) by adding at the end the following:

- Determination. “(2) ADDITIONAL TESTING AUTHORITY.—In addition to the authority provided under paragraph (1), the Administrator may, by rule, order, or consent agreement—
- “ (A) require the development of new information relating to a chemical substance or mixture if the Administrator determines that the information is necessary—
- Review. “ (i) to review a notice under section 5 or to perform  
Notice. a risk evaluation under section 6(b);  
Evaluation. “ (ii) to implement a requirement imposed in a rule, order, or consent agreement under subsection (e) or (f) of section 5 or in a rule promulgated under section 6(a);
- “ (iii) at the request of a Federal implementing authority under another Federal law, to meet the regulatory testing needs of that authority with regard to toxicity and exposure; or
- “ (iv) pursuant to section 12(a)(2); and
- “ (B) require the development of new information for the purposes of prioritizing a chemical substance under section 6(b) only if the Administrator determines that such information is necessary to establish the priority of the substance, subject to the limitations that—
- Deadline. “ (i) not later than 90 days after the date of receipt of information regarding a chemical substance complying with a rule, order, or consent agreement under this subparagraph, the Administrator shall designate the chemical substance as a high-priority substance or a low-priority substance; and
- “ (ii) information required by the Administrator under this subparagraph shall not be required for the purposes of establishing or implementing a minimum information requirement of broader applicability.
- “ (3) STATEMENT OF NEED.—When requiring the development of new information relating to a chemical substance or mixture under paragraph (2), the Administrator shall identify the need for the new information, describe how information reasonably available to the Administrator was used to inform the decision to require new information, explain the basis for any decision that requires the use of vertebrate animals, and, as applicable, explain why issuance of an order is warranted instead of promulgating a rule or entering into a consent agreement.
- “ (4) TIERED TESTING.—When requiring the development of new information under this subsection, the Administrator shall employ a tiered screening and testing process, under which the results of screening-level tests or assessments of available information inform the decision as to whether 1 or more additional tests are necessary, unless information available to the Administrator justifies more advanced testing of potential health or environmental effects or potential exposure without first conducting screening-level testing.”;
- (3) in subsection (b)—
- (A) in paragraph (1)—
- (i) in subparagraph (B), by striking “test data” and inserting “information”;
- (ii) in subparagraph (C), by striking “data” and inserting “information”; and

- (iii) in the matter following subparagraph (C), by striking “data” and inserting “information”;
- (B) in paragraph (2)—
  - (i) in subparagraph (A)—
    - (I) by striking “test data” and inserting “information”;
    - (II) by inserting “Protocols and methodologies for the development of information may also be prescribed for the assessment of exposure or exposure potential to humans or the environment.” after the first sentence; and
    - (III) by striking “hierarchical tests” and inserting “tiered testing”; and
  - (ii) in subparagraph (B), by striking “data” and inserting “information”;
- (C) in paragraph (3)—
  - (i) by striking “data” each place it appears and inserting “information”;
  - (ii) in subparagraph (A), by inserting “or (C), as applicable,” after “subparagraph (B)”;
  - (iii) by striking “(a)(1)(A)(ii) or (a)(1)(B)(ii)” each place it appears in subparagraph (B) and inserting “(a)(1)(A)(i)(II) or (a)(1)(A)(ii)(II)”;
  - (iv) in subparagraph (B), in the matter before clause (i), by striking “subsection (a)” and inserting “subsection (a)(1)”;
  - (v) by adding at the end the following:
 

“(C) A rule or order under paragraph (1) or (2) of subsection (a) may require the development of information by any person who manufactures or processes, or intends to manufacture or process, a chemical substance or mixture subject to the rule or order.”;
- (D) in paragraph (4)—
  - (i) by striking “of data” each place it appears and inserting “of information”;
  - (ii) by striking “test data” each place it appears and inserting “information”;
- (E) by striking paragraph (5);
- (4) in subsection (c)—
  - (A) in paragraph (1), by striking “data” and inserting “information”;
  - (B) in paragraph (2), by striking “data” each place it appears and inserting “information”;
  - (C) in paragraph (3)—
    - (i) by striking “test data” each place it appears and inserting “information”;
    - (ii) by striking “such data” each place it appears and inserting “such information”;
  - (D) in paragraph (4) by striking “test data” each place it appears and inserting “information”;
- (5) in subsection (d)—
  - (A) by striking “test data” each place it appears and inserting “information”;
  - (B) by striking “such data” each place it appears and inserting “such information”;
  - (C) by striking “for which data have” and inserting “for which information has”;

Federal Register,  
publication.

- (6) in subsection (e)—
- (A) in paragraph (1)—
- (i) in subparagraph (A)—
- (I) by striking “promulgation of a rule” and inserting “development of information”; and
- (II) by striking “data” each place it appears and inserting “information”; and
- (ii) in subparagraph (B), by striking “either initiate a rulemaking proceeding under subsection (a) or if such a proceeding is not initiated within such period, publish in the Federal Register the Administrator’s reason for not initiating such a proceeding” and insert “issue an order, enter into a consent agreement, or initiate a rulemaking proceeding under subsection (a), or, if such an order or consent agreement is not issued or such a proceeding is not initiated within such period, publish in the Federal Register the Administrator’s reason for not issuing such an order, entering into such a consent agreement, or initiating such a proceeding”; and
- (B) in paragraph (2)(A)—
- (i) by striking “eight members” and inserting “ten members”; and
- (ii) by adding at the end the following:
- “(ix) One member appointed by the Chairman of the Consumer Product Safety Commission from Commissioners or employees of the Commission.
- “(x) One member appointed by the Commissioner of Food and Drugs from employees of the Food and Drug Administration.”;
- (7) in subsection (f)—
- (A) in paragraph (1), by striking “test data” and inserting “information”; and
- (B) in the matter following paragraph (2)—
- (i) by striking “or will present”;
- (ii) by striking “from cancer, gene mutations, or birth defects”;
- (iii) by striking “data or”;
- (iv) by striking “appropriate” and inserting “applicable”; and
- (v) by inserting “, made without consideration of costs or other nonrisk factors,” after “publish in the Federal Register a finding”;
- (8) in subsection (g)—
- (A) by amending the subsection heading to read as follows: “PETITION FOR PROTOCOLS AND METHODOLOGIES FOR THE DEVELOPMENT OF INFORMATION”;
- (B) by striking “test data” each place it appears and inserting “information”; and
- (C) by striking “submit data” and inserting “submit information”; and
- (9) by adding at the end the following:
- “(h) REDUCTION OF TESTING ON VERTEBRATES.—
- “(1) IN GENERAL.—The Administrator shall reduce and replace, to the extent practicable, scientifically justified, and consistent with the policies of this title, the use of vertebrate

animals in the testing of chemical substances or mixtures under this title by—

“(A) prior to making a request or adopting a requirement for testing using vertebrate animals, and in accordance with subsection (a)(3), taking into consideration, as appropriate and to the extent practicable and scientifically justified, reasonably available existing information, including—

- “(i) toxicity information;
  - “(ii) computational toxicology and bioinformatics;
- and
- “(iii) high-throughput screening methods and the prediction models of those methods; and

“(B) encouraging and facilitating—

“(i) the use of scientifically valid test methods and strategies that reduce or replace the use of vertebrate animals while providing information of equivalent or better scientific quality and relevance that will support regulatory decisions under this title;

“(ii) the grouping of 2 or more chemical substances into scientifically appropriate categories in cases in which testing of a chemical substance would provide scientifically valid and useful information on other chemical substances in the category; and

“(iii) the formation of industry consortia to jointly conduct testing to avoid unnecessary duplication of tests, provided that such consortia make all information from such testing available to the Administrator.

“(2) IMPLEMENTATION OF ALTERNATIVE TESTING METHODS.—

To promote the development and timely incorporation of new scientifically valid test methods and strategies that are not based on vertebrate animals, the Administrator shall—

“(A) not later than 2 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, develop a strategic plan to promote the development and implementation of alternative test methods and strategies to reduce, refine, or replace vertebrate animal testing and provide information of equivalent or better scientific quality and relevance for assessing risks of injury to health or the environment of chemical substances or mixtures through, for example—

- “(i) computational toxicology and bioinformatics;
- “(ii) high-throughput screening methods;
- “(iii) testing of categories of chemical substances;
- “(iv) tiered testing methods;
- “(v) in vitro studies;
- “(vi) systems biology;

“(vii) new or revised methods identified by validation bodies such as the Interagency Coordinating Committee on the Validation of Alternative Methods or the Organization for Economic Co-operation and Development; or

“(viii) industry consortia that develop information submitted under this title;

“(B) as practicable, ensure that the strategic plan developed under subparagraph (A) is reflected in the development of requirements for testing under this section;

Deadline.  
Strategic plan.

- List. “(C) include in the strategic plan developed under subparagraph (A) a list, which the Administrator shall update on a regular basis, of particular alternative test methods or strategies the Administrator has identified that do not require new vertebrate animal testing and are scientifically reliable, relevant, and capable of providing information of equivalent or better scientific reliability and quality to that which would be obtained from vertebrate animal testing;
- Public information. “(D) provide an opportunity for public notice and comment on the contents of the plan developed under subparagraph (A), including the criteria for considering scientific reliability and relevance of the test methods and strategies that may be identified pursuant to subparagraph (C);
- Effective date. Deadlines. Reports. “(E) beginning on the date that is 5 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, and every 5 years thereafter, submit to Congress a report that describes the progress made in implementing the plan developed under subparagraph (A) and goals for future alternative test methods and strategies implementation; and
- Assessment. “(F) prioritize and, to the extent consistent with available resources and the Administrator’s other responsibilities under this title, carry out performance assessment, validation, and translational studies to accelerate the development of scientifically valid test methods and strategies that reduce, refine, or replace the use of vertebrate animals, including minimizing duplication, in any testing under this title.
- “(3) VOLUNTARY TESTING.—
- “(A) IN GENERAL.—Any person developing information for submission under this title on a voluntary basis and not pursuant to any request or requirement by the Administrator shall first attempt to develop the information by means of an alternative test method or strategy identified by the Administrator pursuant to paragraph (2)(C), if the Administrator has identified such a test method or strategy for the development of such information, before conducting new vertebrate animal testing.
- “(B) EFFECT OF PARAGRAPH.—Nothing in this paragraph shall, under any circumstance, limit or restrict the submission of any existing information to the Administrator.
- “(C) RELATIONSHIP TO OTHER LAW.—A violation of this paragraph shall not be a prohibited act under section 15.
- “(D) REVIEW OF MEANS.—This paragraph authorizes, but does not require, the Administrator to review the means by which a person conducted testing described in subparagraph (A).”.

#### SEC. 5. MANUFACTURING AND PROCESSING NOTICES.

Section 5 of the Toxic Substances Control Act (15 U.S.C. 2604) is amended—

- (1) in subsection (a)—  
 (A) in paragraph (1)—

(i) by striking “Except as provided in” and inserting “(A) Except as provided in subparagraph (B) of this paragraph and”;

(ii) by redesignating subparagraphs (A) and (B) as clauses (i) and (ii), respectively;

(iii) by striking all that follows “significant new use” and inserting a period; and

(iv) by adding at the end the following:

“(B) A person may take the actions described in subparagraph (A) if—

“(i) such person submits to the Administrator, at least 90 days before such manufacture or processing, a notice, in accordance with subsection (d), of such person’s intention to manufacture or process such substance and such person complies with any applicable requirement of, or imposed pursuant to, subsection (b), (e), or (f); and

Deadline.

“(ii) the Administrator—

“(I) conducts a review of the notice; and

Review.

“(II) makes a determination under subparagraph (A), (B), or (C) of paragraph (3) and takes the actions required in association with that determination under such subparagraph within the applicable review period.”; and

Determination.

(B) by adding at the end the following new paragraphs:

“(3) REVIEW AND DETERMINATION.—Within the applicable review period, subject to section 18, the Administrator shall review such notice and determine—

“(A) that the relevant chemical substance or significant new use presents an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant by the Administrator under the conditions of use, in which case the Administrator shall take the actions required under subsection (f);

“(B) that—

“(i) the information available to the Administrator is insufficient to permit a reasoned evaluation of the health and environmental effects of the relevant chemical substance or significant new use; or

“(ii)(I) in the absence of sufficient information to permit the Administrator to make such an evaluation, the manufacture, processing, distribution in commerce, use, or disposal of such substance, or any combination of such activities, may present an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant by the Administrator; or

“(II) such substance is or will be produced in substantial quantities, and such substance either enters or may reasonably be anticipated to enter the environment in substantial quantities or there is or may be significant or substantial human exposure to the substance,

in which case the Administrator shall take the actions required under subsection (e); or

“(C) that the relevant chemical substance or significant new use is not likely to present an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant by the Administrator under the conditions of use, in which case the submitter of the notice may commence manufacture of the chemical substance or manufacture or processing for a significant new use.

“(4) FAILURE TO RENDER DETERMINATION.—

Refund.

“(A) FAILURE TO RENDER DETERMINATION.—If the Administrator fails to make a determination on a notice under paragraph (3) by the end of the applicable review period and the notice has not been withdrawn by the submitter, the Administrator shall refund to the submitter all applicable fees charged to the submitter for review of the notice pursuant to section 26(b), and the Administrator shall not be relieved of any requirement to make such determination.

“(B) LIMITATIONS.—(i) A refund of applicable fees under subparagraph (A) shall not be made if the Administrator certifies that the submitter has not provided information required under subsection (b) or has otherwise unduly delayed the process such that the Administrator is unable to render a determination within the applicable review period.

“(ii) A failure of the Administrator to render a decision shall not be deemed to constitute a withdrawal of the notice.

“(iii) Nothing in this paragraph shall be construed as relieving the Administrator or the submitter of the notice from any requirement of this section.

“(5) ARTICLE CONSIDERATION.—The Administrator may require notification under this section for the import or processing of a chemical substance as part of an article or category of articles under paragraph (1)(A)(ii) if the Administrator makes an affirmative finding in a rule under paragraph (2) that the reasonable potential for exposure to the chemical substance through the article or category of articles subject to the rule justifies notification.”;

(2) in subsection (b)—

(A) in the subsection heading, by striking “TEST DATA” and inserting “INFORMATION”;

(B) in paragraph (1)—

(i) in subparagraph (A)—

(I) by striking “test data” and inserting “information”; and

(II) by striking “such data” and inserting “such information”; and

(ii) in subparagraph (B)—

(I) by striking “test data” and inserting “information”;

(II) by striking “subsection (a)(1)(A)” and inserting “subsection (a)(1)(A)(i)”; and

- (III) by striking “subsection (a)(1)(B)” and inserting “subsection (a)(1)(A)(ii)”;
- (C) in paragraph (2)—
  - (i) in subparagraph (A)—
    - (I) by striking “test data” in clause (ii) and inserting “information”;
    - (II) by striking “shall” and inserting “may”;
    - and
    - (III) by striking “data prescribed” and inserting “information prescribed”; and
  - (ii) in subparagraph (B)—
    - (I) by striking “Data” and inserting “Information”;
    - (II) by striking “data” both places it appears and inserting “information”;
    - (III) by striking “show” and inserting “shows”;
    - (IV) by striking “subsection (a)(1)(A)” in clause (i) and inserting “subsection (a)(1)(A)(i)”; and
    - (V) by striking “subsection (a)(1)(B)” in clause (ii) and inserting “subsection (a)(1)(A)(ii)”;
- (D) in paragraph (3)—
  - (i) by striking “Data” and inserting “Information”;
  - and
  - (ii) by striking “paragraph (1) or (2)” and inserting “paragraph (1) or (2) of this subsection or under subsection (e)”;
- (E) in paragraph (4)—
  - (i) in subparagraph (A)(i), by inserting “, without consideration of costs or other nonrisk factors” after “health or the environment”; and
  - (ii) in subparagraph (C), by striking “, except that” and all that follows through “subparagraph (A)”;
- (3) in subsection (c)—
  - (A) in the subsection heading, by striking “NOTICE” and inserting “REVIEW”; and
  - (B) by striking “before which” and all that follows through “subsection may begin”;
- (4) in subsection (d)—
  - (A) by striking “test data” in paragraph (1)(B) and inserting “information”;
  - (B) by striking “data” each place it appears in paragraph (1)(C) and paragraph (2) and inserting “information”;
  - (C) in paragraph (2)(B), by striking “uses or intended uses of such substance” and inserting “uses of such substance identified in the notice”; and
  - (D) in paragraph (3)—
    - (i) by striking “for which the notification period prescribed by subsection (a), (b), or (c)” and inserting “for which the applicable review period”; and
    - (ii) by striking “such notification period” and inserting “such period”;
- (5) in subsection (e)—
  - (A) in paragraph (1)(A)—
    - (i) in clause (i), by striking “; and” and inserting “; or”;
    - (ii) in clause (ii)(I), by inserting “without consideration of costs or other nonrisk factors, including an

unreasonable risk to a potentially exposed subpopulation identified as relevant by the Administrator under the conditions of use;” after “health or the environment,”; and

(iii) in the matter after clause (ii)(II)—

(I) by striking “may issue a proposed order” and inserting “shall issue an order”;

(II) by striking “notification period applicable to the manufacturing or processing of such substance under subsection (a), (b), (c)” and inserting “applicable review period”; and

(III) by inserting “to the extent necessary to protect against an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant by the Administrator under the conditions of use, and the submitter of the notice may commence manufacture of the chemical substance, or manufacture or processing of the chemical substance for a significant new use, including while any required information is being developed, only in compliance with the order” before the period at the end;

(B) in paragraph (1)(B)—

(i) by striking “A proposed order” and inserting “An order”;

(ii) by striking “notification period applicable to the manufacture or processing of such substance under subsection (a), (b), (c)” and inserting “applicable review period”; and

(iii) by striking “of the proposed order” and inserting “of the order”;

(C) by striking paragraph (1)(C); and

(D) by striking paragraph (2);

(6) in subsection (f)—

(A) in paragraph (1)—

(i) by striking “finds that there is a reasonable basis to conclude that the manufacture, processing, distribution in commerce, use, or disposal of a chemical substance with” and inserting “determines that a chemical substance or significant new use with”;

(ii) by striking “, or that any combination of such activities,”;

(iii) by striking “or will present”;

(iv) by striking “before a rule promulgated under section 6 can protect against such risk,” and inserting “, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed subpopulation identified as relevant by the Administrator under the conditions of use,”; and

(v) by striking “notification period applicable under subsection (a), (b), or (c) to the manufacturing or processing of such substance” and inserting “applicable review period”;

(B) in paragraph (2), the matter following subparagraph (C), by striking “Section 6(d)(2)(B)” and inserting “Section 6(d)(3)(B)”;

(C) in paragraph (3)—

(i) in subparagraph (A)—

(I) by striking “Administrator may” and all that follows through “issue a proposed order to prohibit the” and inserting “Administrator may issue an order to prohibit or limit the”; and

(II) by striking “under paragraph (1)” and all that follows through “processing of such substance.” and inserting “under paragraph (1). Such order shall take effect on the expiration of the applicable review period.”;

(ii) by striking subparagraph (B) and redesignating subparagraph (C) as subparagraph (B);

(iii) in subparagraph (B), as so redesignated—

(I) by striking “subparagraphs (B) and (C)” and inserting “subparagraph (B)”;

(II) by striking “clause (i) of”; and

(III) by striking “; and the provisions of subparagraph (C) of subsection (e)(2) shall apply with respect to an injunction issued under subparagraph (B)”;

(iv) by striking subparagraph (D); and

(D) by adding at the end the following:

“(4) TREATMENT OF NONCONFORMING USES.—Not later than 90 days after taking an action under paragraph (2) or (3) or issuing an order under subsection (e) relating to a chemical substance with respect to which the Administrator has made a determination under subsection (a)(3)(A) or (B), the Administrator shall consider whether to promulgate a rule pursuant to subsection (a)(2) that identifies as a significant new use any manufacturing, processing, use, distribution in commerce, or disposal of the chemical substance that does not conform to the restrictions imposed by the action or order, and, as applicable, initiate such a rulemaking or publish a statement describing the reasons of the Administrator for not initiating such a rulemaking.

Deadline.  
Regulations.  
Publication.

“(5) WORKPLACE EXPOSURES.—To the extent practicable, the Administrator shall consult with the Assistant Secretary of Labor for Occupational Safety and Health prior to adopting any prohibition or other restriction relating to a chemical substance with respect to which the Administrator has made a determination under subsection (a)(3)(A) or (B) to address workplace exposures.”;

Consultation.

(7) by amending subsection (g) to read as follows:

“(g) STATEMENT ON ADMINISTRATOR FINDING.—If the Administrator finds in accordance with subsection (a)(3)(C) that a chemical substance or significant new use is not likely to present an unreasonable risk of injury to health or the environment, then notwithstanding any remaining portion of the applicable review period, the submitter of the notice may commence manufacture of the chemical substance or manufacture or processing for the significant new use, and the Administrator shall make public a statement of the Administrator’s finding. Such a statement shall be submitted for publication in the Federal Register as soon as

Public  
information.

Federal Register,  
publication.

is practicable before the expiration of such period. Publication of such statement in accordance with the preceding sentence is not a prerequisite to the manufacturing or processing of the substance with respect to which the statement is to be published.”;

(8) in subsection (h)—

(A) in paragraph (1)(A), by inserting “, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified by the Administrator for the specific conditions of use identified in the application” after “health or the environment”;

(B) in paragraph (2), by striking “data” each place it appears and inserting “information”; and

(C) in paragraph (4), by striking “. A rule promulgated” and all that follows through “section 6(c)” and inserting “, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified by the Administrator under the conditions of use”; and

(9) by amending subsection (i) to read as follows:

“(i) DEFINITIONS.—(1) For purposes of this section, the terms ‘manufacture’ and ‘process’ mean manufacturing or processing for commercial purposes.

“(2) For purposes of this Act, the term ‘requirement’ as used in this section shall not displace any statutory or common law.

“(3) For purposes of this section, the term ‘applicable review period’ means the period starting on the date the Administrator receives a notice under subsection (a)(1) and ending 90 days after that date, or on such date as is provided for in subsection (b)(1) or (c).”.

**SEC. 6. PRIORITIZATION, RISK EVALUATION, AND REGULATION OF CHEMICAL SUBSTANCES AND MIXTURES.**

Section 6 of the Toxic Substances Control Act (15 U.S.C. 2605) is amended—

(1) by striking the section heading and inserting “**PRIORITIZATION, RISK EVALUATION, AND REGULATION OF CHEMICAL SUBSTANCES AND MIXTURES**”;

(2) in subsection (a)—

(A) by striking “finds that there is a reasonable basis to conclude” and inserting “determines in accordance with subsection (b)(4)(A)”;

(B) by striking “or will present”;

(C) by inserting “and subject to section 18, and in accordance with subsection (c)(2),” after “shall by rule”;

(D) by striking “to protect adequately against such risk using the least burdensome requirements” and inserting “so that the chemical substance or mixture no longer presents such risk”;

(E) by inserting “or otherwise restricting” after “prohibiting” in paragraphs (1)(A) and (2)(A);

(F) by inserting “minimum” before “warnings” both places it appears in paragraph (3);

(G) by striking “and monitor or conduct tests” and inserting “or monitor or conduct tests” in paragraph (4); and

(H) in paragraph (7)—

(i) by striking “such unreasonable risk of injury” and inserting “such determination”; and

(ii) by striking “such risk of injury” and inserting “such determination”;

(3) by amending subsection (b) to read as follows:

“(b) RISK EVALUATIONS.—

“(1) PRIORITIZATION FOR RISK EVALUATIONS.—

“(A) ESTABLISHMENT OF PROCESS.—Not later than 1 year after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall establish, by rule, a risk-based screening process, including criteria for designating chemical substances as high-priority substances for risk evaluations or low-priority substances for which risk evaluations are not warranted at the time. The process to designate the priority of chemical substances shall include a consideration of the hazard and exposure potential of a chemical substance or a category of chemical substances (including consideration of persistence and bioaccumulation, potentially exposed or susceptible subpopulations and storage near significant sources of drinking water), the conditions of use or significant changes in the conditions of use of the chemical substance, and the volume or significant changes in the volume of the chemical substance manufactured or processed.

Deadline.  
Criteria.

“(B) IDENTIFICATION OF PRIORITIES FOR RISK EVALUATION.—

“(i) HIGH-PRIORITY SUBSTANCES.—The Administrator shall designate as a high-priority substance a chemical substance that the Administrator concludes, without consideration of costs or other nonrisk factors, may present an unreasonable risk of injury to health or the environment because of a potential hazard and a potential route of exposure under the conditions of use, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant by the Administrator.

“(ii) LOW-PRIORITY SUBSTANCES.—The Administrator shall designate a chemical substance as a low-priority substance if the Administrator concludes, based on information sufficient to establish, without consideration of costs or other nonrisk factors, that such substance does not meet the standard identified in clause (i) for designating a chemical substance a high-priority substance.

“(C) INFORMATION REQUEST AND REVIEW AND PROPOSED AND FINAL PRIORITIZATION DESIGNATION.—The rulemaking required in subparagraph (A) shall ensure that the time required to make a priority designation of a chemical substance be no shorter than nine months and no longer than 1 year, and that the process for such designations includes—

Time periods.

“(i) a requirement that the Administrator request interested persons to submit relevant information on a chemical substance that the Administrator has initiated the prioritization process on, before proposing a priority designation for the chemical substance, and provide 90 days for such information to be provided;

Publication.  
Public  
information.

“(ii) a requirement that the Administrator publish each proposed designation of a chemical substance as a high- or low-priority substance, along with an identification of the information, analysis, and basis used to make the proposed designations, and provide 90 days for public comment on each such proposed designation; and

“(iii) a process by which the Administrator may extend the deadline in clause (i) for up to three months in order to receive or evaluate information required to be submitted in accordance with section 4(a)(2)(B), subject to the limitation that if the information available to the Administrator at the end of such an extension remains insufficient to enable the designation of the chemical substance as a low-priority substance, the Administrator shall designate the chemical substance as a high-priority substance.

“(2) INITIAL RISK EVALUATIONS AND SUBSEQUENT DESIGNATIONS OF HIGH- AND LOW-PRIORITY SUBSTANCES.—

Deadline.  
Publication.  
Lists.  
Time period.

“(A) INITIAL RISK EVALUATIONS.—Not later than 180 days after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall ensure that risk evaluations are being conducted on 10 chemical substances drawn from the 2014 update of the TSCA Work Plan for Chemical Assessments and shall publish the list of such chemical substances during the 180 day period.

Deadline.

“(B) ADDITIONAL RISK EVALUATIONS.—Not later than three and one half years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall ensure that risk evaluations are being conducted on at least 20 high-priority substances and that at least 20 chemical substances have been designated as low-priority substances, subject to the limitation that at least 50 percent of all chemical substances on which risk evaluations are being conducted by the Administrator are drawn from the 2014 update of the TSCA Work Plan for Chemical Assessments.

“(C) CONTINUING DESIGNATIONS AND RISK EVALUATIONS.—The Administrator shall continue to designate priority substances and conduct risk evaluations in accordance with this subsection at a pace consistent with the ability of the Administrator to complete risk evaluations in accordance with the deadlines under paragraph (4)(G).

“(D) PREFERENCE.—In designating high-priority substances, the Administrator shall give preference to—

“(i) chemical substances that are listed in the 2014 update of the TSCA Work Plan for Chemical Assessments as having a Persistence and Bioaccumulation Score of 3; and

“(ii) chemical substances that are listed in the 2014 update of the TSCA Work Plan for Chemical Assessments that are known human carcinogens and have high acute and chronic toxicity.

“(E) METALS AND METAL COMPOUNDS.—In identifying priorities for risk evaluation and conducting risk evaluations of metals and metal compounds, the Administrator

shall use the Framework for Metals Risk Assessment of the Office of the Science Advisor, Risk Assessment Forum, and dated March 2007, or a successor document that addresses metals risk assessment and is peer reviewed by the Science Advisory Board.

“(3) INITIATION OF RISK EVALUATIONS; DESIGNATIONS.—

“(A) RISK EVALUATION INITIATION.—Upon designating a chemical substance as a high-priority substance, the Administrator shall initiate a risk evaluation on the substance.

“(B) REVISION.—The Administrator may revise the designation of a low-priority substance based on information made available to the Administrator.

“(C) ONGOING DESIGNATIONS.—The Administrator shall designate at least one high-priority substance upon the completion of each risk evaluation (other than risk evaluations for chemical substances designated under paragraph (4)(C)(ii)).

“(4) RISK EVALUATION PROCESS AND DEADLINES.—

“(A) IN GENERAL.—The Administrator shall conduct risk evaluations pursuant to this paragraph to determine whether a chemical substance presents an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant to the risk evaluation by the Administrator, under the conditions of use.

Determination.

“(B) ESTABLISHMENT OF PROCESS.—Not later than 1 year after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall establish, by rule, a process to conduct risk evaluations in accordance with subparagraph (A).

Deadline.

“(C) REQUIREMENT.—The Administrator shall conduct and publish risk evaluations, in accordance with the rule promulgated under subparagraph (B), for a chemical substance—

Publication.

“(i) that has been identified under paragraph (2)(A) or designated under paragraph (1)(B)(i); and

“(ii) subject to subparagraph (E), that a manufacturer of the chemical substance has requested, in a form and manner and using the criteria prescribed by the Administrator in the rule promulgated under subparagraph (B), be subjected to a risk evaluation.

“(D) SCOPE.—The Administrator shall, not later than 6 months after the initiation of a risk evaluation, publish the scope of the risk evaluation to be conducted, including the hazards, exposures, conditions of use, and the potentially exposed or susceptible subpopulations the Administrator expects to consider, and, for each designation of a high-priority substance, ensure not less than 12 months between the initiation of the prioritization process for the chemical substance and the publication of the scope of the risk evaluation for the chemical substance, and for risk evaluations conducted on chemical substances that have been identified under paragraph (2)(A) or selected under subparagraph (E)(iv)(II) of this paragraph, ensure

Deadlines.  
Publications.

not less than 3 months before the Administrator publishes the scope of the risk evaluation.

“(E) LIMITATION AND CRITERIA.—

“(i) PERCENTAGE REQUIREMENTS.—The Administrator shall ensure that, of the number of chemical substances that undergo a risk evaluation under clause (i) of subparagraph (C), the number of chemical substances undergoing a risk evaluation under clause (ii) of subparagraph (C) is—

“(I) not less than 25 percent, if sufficient requests are made under clause (ii) of subparagraph (C); and

“(II) not more than 50 percent.

“(ii) REQUESTED RISK EVALUATIONS.—Requests for risk evaluations under subparagraph (C)(ii) shall be subject to the payment of fees pursuant to section 26(b), and the Administrator shall not expedite or otherwise provide special treatment to such risk evaluations.

“(iii) PREFERENCE.—In deciding whether to grant requests under subparagraph (C)(ii), the Administrator shall give preference to requests for risk evaluations on chemical substances for which the Administrator determines that restrictions imposed by 1 or more States have the potential to have a significant impact on interstate commerce or health or the environment.

“(iv) EXCEPTIONS.—(I) Chemical substances for which requests have been granted under subparagraph (C)(ii) shall not be subject to section 18(b).

“(II) Requests for risk evaluations on chemical substances which are made under subparagraph (C)(ii) and that are drawn from the 2014 update of the TSCA Work Plan for Chemical Assessments shall be granted at the discretion of the Administrator and not be subject to clause (i)(II).

“(F) REQUIREMENTS.—In conducting a risk evaluation under this subsection, the Administrator shall—

Assessment.

“(i) integrate and assess available information on hazards and exposures for the conditions of use of the chemical substance, including information that is relevant to specific risks of injury to health or the environment and information on potentially exposed or susceptible subpopulations identified as relevant by the Administrator;

“(ii) describe whether aggregate or sentinel exposures to a chemical substance under the conditions of use were considered, and the basis for that consideration;

“(iii) not consider costs or other nonrisk factors;

“(iv) take into account, where relevant, the likely duration, intensity, frequency, and number of exposures under the conditions of use of the chemical substance; and

“(v) describe the weight of the scientific evidence for the identified hazard and exposure.

“(G) DEADLINES.—The Administrator—

“(i) shall complete a risk evaluation for a chemical substance as soon as practicable, but not later than 3 years after the date on which the Administrator initiates the risk evaluation under subparagraph (C); and

“(ii) may extend the deadline for a risk evaluation for not more than 6 months.

“(H) NOTICE AND COMMENT.—The Administrator shall provide no less than 30 days public notice and an opportunity for comment on a draft risk evaluation prior to publishing a final risk evaluation.”;

Time period.

(4) by amending subsection (c) to read as follows:

“(c) PROMULGATION OF SUBSECTION (a) RULES.—

“(1) DEADLINES.—If the Administrator determines that a chemical substance presents an unreasonable risk of injury to health or the environment in accordance with subsection (b)(4)(A), the Administrator—

Determination.  
Federal Register,  
publication.

“(A) shall propose in the Federal Register a rule under subsection (a) for the chemical substance not later than 1 year after the date on which the final risk evaluation regarding the chemical substance is published;

“(B) shall publish in the Federal Register a final rule not later than 2 years after the date on which the final risk evaluation regarding the chemical substance is published; and

“(C) may extend the deadlines under this paragraph for not more than 2 years, subject to the condition that the aggregate length of extensions under this subparagraph and subsection (b)(4)(G)(ii) does not exceed 2 years, and subject to the limitation that the Administrator may not extend a deadline for the publication of a proposed or final rule regarding a chemical substance drawn from the 2014 update of the TSCA Work Plan for Chemical Assessments or a chemical substance that, with respect to persistence and bioaccumulation, scores high for 1 and either high or moderate for the other, pursuant to the TSCA Work Plan Chemicals Methods Document published by the Administrator in February 2012 (or a successor scoring system), without adequate public justification that demonstrates, following a review of the information reasonably available to the Administrator, that the Administrator cannot complete the proposed or final rule without additional information regarding the chemical substance.

“(2) REQUIREMENTS FOR RULE.—

“(A) STATEMENT OF EFFECTS.—In proposing and promulgating a rule under subsection (a) with respect to a chemical substance or mixture, the Administrator shall consider and publish a statement based on reasonably available information with respect to—

Publication.

“(i) the effects of the chemical substance or mixture on health and the magnitude of the exposure of human beings to the chemical substance or mixture;

“(ii) the effects of the chemical substance or mixture on the environment and the magnitude of the exposure of the environment to such substance or mixture;

“(iii) the benefits of the chemical substance or mixture for various uses; and

“(iv) the reasonably ascertainable economic consequences of the rule, including consideration of—

“(I) the likely effect of the rule on the national economy, small business, technological innovation, the environment, and public health;

“(II) the costs and benefits of the proposed and final regulatory action and of the 1 or more primary alternative regulatory actions considered by the Administrator; and

“(III) the cost effectiveness of the proposed regulatory action and of the 1 or more primary alternative regulatory actions considered by the Administrator.

“(B) SELECTING REQUIREMENTS.—In selecting among prohibitions and other restrictions, the Administrator shall factor in, to the extent practicable, the considerations under subparagraph (A) in accordance with subsection (a).

“(C) CONSIDERATION OF ALTERNATIVES.—Based on the information published under subparagraph (A), in deciding whether to prohibit or restrict in a manner that substantially prevents a specific condition of use of a chemical substance or mixture, and in setting an appropriate transition period for such action, the Administrator shall consider, to the extent practicable, whether technically and economically feasible alternatives that benefit health or the environment, compared to the use so proposed to be prohibited or restricted, will be reasonably available as a substitute when the proposed prohibition or other restriction takes effect.

“(D) REPLACEMENT PARTS.—

Exemption.

“(i) IN GENERAL.—The Administrator shall exempt replacement parts for complex durable goods and complex consumer goods that are designed prior to the date of publication in the Federal Register of the rule under subsection (a), unless the Administrator finds that such replacement parts contribute significantly to the risk, identified in a risk evaluation conducted under subsection (b)(4)(A), to the general population or to an identified potentially exposed or susceptible subpopulation.

“(ii) DEFINITIONS.—In this subparagraph—

“(I) the term ‘complex consumer goods’ means electronic or mechanical devices composed of multiple manufactured components, with an intended useful life of 3 or more years, where the product is typically not consumed, destroyed, or discarded after a single use, and the components of which would be impracticable to redesign or replace; and

“(II) the term ‘complex durable goods’ means manufactured goods composed of 100 or more manufactured components, with an intended useful life of 5 or more years, where the product is typically not consumed, destroyed, or discarded after a single use.

- “(E) ARTICLES.—In selecting among prohibitions and other restrictions, the Administrator shall apply such prohibitions or other restrictions to an article or category of articles containing the chemical substance or mixture only to the extent necessary to address the identified risks from exposure to the chemical substance or mixture from the article or category of articles so that the substance or mixture does not present an unreasonable risk of injury to health or the environment identified in the risk evaluation conducted in accordance with subsection (b)(4)(A).”
- “(3) PROCEDURES.—When prescribing a rule under subsection (a) the Administrator shall proceed in accordance with section 553 of title 5, United States Code (without regard to any reference in such section to sections 556 and 557 of such title), and shall also—
- “(A) publish a notice of proposed rulemaking stating with particularity the reason for the proposed rule;
- “(B) allow interested persons to submit written data, views, and arguments, and make all such submissions publicly available;
- “(C) promulgate a final rule based on the matter in the rulemaking record; and
- “(D) make and publish with the rule the determination described in subsection (a).”;
- (5) in subsection (d)—
- (A) by redesignating paragraph (2) as paragraph (3);
- (B) by striking paragraph (1) and inserting the following:
- “(1) IN GENERAL.—In any rule under subsection (a), the Administrator shall—
- “(A) specify the date on which it shall take effect, which date shall be as soon as practicable;
- “(B) except as provided in subparagraphs (C) and (D), specify mandatory compliance dates for all of the requirements under a rule under subsection (a), which shall be as soon as practicable, but not later than 5 years after the date of promulgation of the rule, except in a case of a use exempted under subsection (g);
- “(C) specify mandatory compliance dates for the start of ban or phase-out requirements under a rule under subsection (a), which shall be as soon as practicable, but not later than 5 years after the date of promulgation of the rule, except in the case of a use exempted under subsection (g);
- “(D) specify mandatory compliance dates for full implementation of ban or phase-out requirements under a rule under subsection (a), which shall be as soon as practicable; and
- “(E) provide for a reasonable transition period.
- “(2) VARIABILITY.—As determined by the Administrator, the compliance dates established under paragraph (1) may vary for different affected persons.”; and
- (C) in paragraph (3), as so redesignated by subparagraph (A) of this paragraph—
- (i) in subparagraph (A)—
- (I) by striking “upon its publication” and all that follows through “respecting such rule if” and

Applicability.

Publication.  
Notice.Public  
information.

Publication.

Compliance  
dates.  
Deadline.  
Effective date.

Determination.

inserting “, and compliance with the proposed requirements to be mandatory, upon publication in the Federal Register of the proposed rule and until the compliance dates applicable to such requirements in a final rule promulgated under section 6(a) or until the Administrator revokes such proposed rule, in accordance with subparagraph (B), if”; and

(II) in clause (i)(I), by inserting “without consideration of costs or other non-risk factors” after “effective date”; and

(ii) in subparagraph (B), by striking “, provide reasonable opportunity” and all that follows through the period at the end and inserting “in accordance with subsection (c), and either promulgate such rule (as proposed or with modifications) or revoke it.”;

(6) in subsection (e)(4), by striking “paragraphs (2), (3), and (4)” and inserting “paragraph (3)”; and

(7) by adding at the end the following new subsections:  
“(g) EXEMPTIONS.—

“(1) CRITERIA FOR EXEMPTION.—The Administrator may, as part of a rule promulgated under subsection (a), or in a separate rule, grant an exemption from a requirement of a subsection (a) rule for a specific condition of use of a chemical substance or mixture, if the Administrator finds that—

“(A) the specific condition of use is a critical or essential use for which no technically and economically feasible safer alternative is available, taking into consideration hazard and exposure;

“(B) compliance with the requirement, as applied with respect to the specific condition of use, would significantly disrupt the national economy, national security, or critical infrastructure; or

“(C) the specific condition of use of the chemical substance or mixture, as compared to reasonably available alternatives, provides a substantial benefit to health, the environment, or public safety.

“(2) EXEMPTION ANALYSIS AND STATEMENT.—In proposing an exemption under this subsection, the Administrator shall analyze the need for the exemption, and shall make public the analysis and a statement describing how the analysis was taken into account.

“(3) PERIOD OF EXEMPTION.—The Administrator shall establish, as part of a rule under this subsection, a time limit on any exemption for a time to be determined by the Administrator as reasonable on a case-by-case basis, and, by rule, may extend, modify, or eliminate an exemption if the Administrator determines, on the basis of reasonably available information and after adequate public justification, the exemption warrants extension or modification or is no longer necessary.

“(4) CONDITIONS.—As part of a rule promulgated under this subsection, the Administrator shall include conditions, including reasonable recordkeeping, monitoring, and reporting requirements, to the extent that the Administrator determines the conditions are necessary to protect health and the environment while achieving the purposes of the exemption.

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information.

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Records.  
Reports.  
Determination.

“(h) CHEMICALS THAT ARE PERSISTENT, BIOACCUMULATIVE, AND TOXIC.—

“(1) EXPEDITED ACTION.—Not later than 3 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall propose rules under subsection (a) with respect to chemical substances identified in the 2014 update of the TSCA Work Plan for Chemical Assessments—

Deadline.

“(A) that the Administrator has a reasonable basis to conclude are toxic and that with respect to persistence and bioaccumulation score high for one and either high or moderate for the other, pursuant to the TSCA Work Plan Chemicals Methods Document published by the Administrator in February 2012 (or a successor scoring system), and are not a metal or a metal compound, and for which the Administrator has not completed a Work Plan Problem Formulation, initiated a review under section 5, or entered into a consent agreement under section 4, prior to the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act; and

“(B) exposure to which under the conditions of use is likely to the general population or to a potentially exposed or susceptible subpopulation identified by the Administrator, or the environment, on the basis of an exposure and use assessment conducted by the Administrator.

“(2) NO RISK EVALUATION REQUIRED.—The Administrator shall not be required to conduct risk evaluations on chemical substances that are subject to paragraph (1).

“(3) FINAL RULE.—Not later than 18 months after proposing a rule pursuant to paragraph (1), the Administrator shall promulgate a final rule under subsection (a).

Deadline.

“(4) SELECTING RESTRICTIONS.—In selecting among prohibitions and other restrictions promulgated in a rule under subsection (a) pursuant to paragraph (1), the Administrator shall address the risks of injury to health or the environment that the Administrator determines are presented by the chemical substance and shall reduce exposure to the substance to the extent practicable.

“(5) RELATIONSHIP TO SUBSECTION (b).—If, at any time prior to the date that is 90 days after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator makes a designation under subsection (b)(1)(B)(i), or receives a request under subsection (b)(4)(C)(ii), such chemical substance shall not be subject to this subsection, except that in selecting among prohibitions and other restrictions promulgated in a rule pursuant to subsection (a), the Administrator shall both ensure that the chemical substance meets the rulemaking standard under subsection (a) and reduce exposure to the substance to the extent practicable.

Time period.

“(i) FINAL AGENCY ACTION.—Under this section and subject to section 18—

“(1) a determination by the Administrator under subsection (b)(4)(A) that a chemical substance does not present an unreasonable risk of injury to health or the environment shall be issued by order and considered to be a final agency action, effective beginning on the date of issuance of the order; and

Determination.  
Effective date.

“(2) a final rule promulgated under subsection (a), including the associated determination by the Administrator under subsection (b)(4)(A) that a chemical substance presents an unreasonable risk of injury to health or the environment, shall be considered to be a final agency action, effective beginning on the date of promulgation of the final rule.

“(j) DEFINITION.—For the purposes of this Act, the term ‘requirement’ as used in this section shall not displace statutory or common law.”

#### SEC. 7. IMMINENT HAZARDS.

Section 7 of the Toxic Substances Control Act (15 U.S.C. 2606) is amended—

(1) in subsection (b)(1), by inserting “(as identified by the Administrator without consideration of costs or other nonrisk factors)” after “from the unreasonable risk”; and

(2) in subsection (f), by inserting “, without consideration of costs or other nonrisk factors” after “widespread injury to health or the environment”.

#### SEC. 8. REPORTING AND RETENTION OF INFORMATION.

(a) IN GENERAL.—Section 8 of the Toxic Substances Control Act (15 U.S.C. 2607) is amended—

(1) in subsection (a)—

(A) in paragraph (2), by striking the matter that follows subparagraph (G);

(B) in paragraph (3), by adding at the end the following:

“(C) Not later than 180 days after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, and not less frequently than once every 10 years thereafter, the Administrator, after consultation with the Administrator of the Small Business Administration, shall—

“(i) review the adequacy of the standards prescribed under subparagraph (B); and

“(ii) after providing public notice and an opportunity for comment, make a determination as to whether revision of the standards is warranted.”; and

(C) by adding at the end the following:

“(4) CONTENTS.—The rules promulgated pursuant to paragraph (1)—

“(A) may impose differing reporting and recordkeeping requirements on manufacturers and processors; and

“(B) shall include the level of detail necessary to be reported, including the manner by which use and exposure information may be reported.

“(5) ADMINISTRATION.—In carrying out this section, the Administrator shall, to the extent feasible—

“(A) not require reporting which is unnecessary or duplicative;

“(B) minimize the cost of compliance with this section and the rules issued thereunder on small manufacturers and processors; and

“(C) apply any reporting obligations to those persons likely to have information relevant to the effective implementation of this title.

“(6) NEGOTIATED RULEMAKING.—(A) The Administrator shall enter into a negotiated rulemaking pursuant to subchapter III of chapter 5 of title 5, United States Code, to develop

Time period.  
Consultation.

Review.

Public  
information.  
Determination.

Applicability.

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and publish, not later than 3 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, a proposed rule providing for limiting the reporting requirements, under this subsection, for manufacturers of any inorganic byproducts, when such byproducts, whether by the byproduct manufacturer or by any other person, are subsequently recycled, reused, or reprocessed.

“(B) Not later than 3 and one-half years after such date of enactment, the Administrator shall publish a final rule resulting from such negotiated rulemaking.”; and

(2) in subsection (b), by adding at the end the following:

“(3) NOMENCLATURE.—

“(A) IN GENERAL.—In carrying out paragraph (1), the Administrator shall—

“(i) maintain the use of Class 2 nomenclature in use on the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act;

“(ii) maintain the use of the Soap and Detergent Association Nomenclature System, published in March 1978 by the Administrator in section 1 of addendum III of the document entitled ‘Candidate List of Chemical Substances’, and further described in the appendix A of volume I of the 1985 edition of the Toxic Substances Control Act Substances Inventory (EPA Document No. EPA–560/7–85–002a); and

“(iii) treat the individual members of the categories of chemical substances identified by the Administrator as statutory mixtures, as defined in Inventory descriptions established by the Administrator, as being included on the list established under paragraph (1).

“(B) MULTIPLE NOMENCLATURE LISTINGS.—If a manufacturer or processor demonstrates to the Administrator that a chemical substance appears multiple times on the list published under paragraph (1) under different CAS numbers, the Administrator may recognize the multiple listings as a single chemical substance.

“(4) CHEMICAL SUBSTANCES IN COMMERCE.—

“(A) RULES.—

“(i) IN GENERAL.—Not later than 1 year after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator, by rule, shall require manufacturers, and may require processors, subject to the limitations under subsection (a)(5)(A), to notify the Administrator, by not later than 180 days after the date on which the final rule is published in the Federal Register, of each chemical substance on the list published under paragraph (1) that the manufacturer or processor, as applicable, has manufactured or processed for a nonexempt commercial purpose during the 10-year period ending on the day before the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act.

“(ii) ACTIVE SUBSTANCES.—The Administrator shall designate chemical substances for which notices are received under clause (i) to be active substances on the list published under paragraph (1).

Notification.  
Federal Register,  
publication.  
Time period.

- “(iii) INACTIVE SUBSTANCES.—The Administrator shall designate chemical substances for which no notices are received under clause (i) to be inactive substances on the list published under paragraph (1).
- “(iv) LIMITATION.—No chemical substance on the list published under paragraph (1) shall be removed from such list by reason of the implementation of this subparagraph, or be subject to section 5(a)(1)(A)(i) by reason of a change to active status under paragraph (5)(B).
- Claims. “(B) CONFIDENTIAL CHEMICAL SUBSTANCES.—In promulgating a rule under subparagraph (A), the Administrator shall—
- List. “(i) maintain the list under paragraph (1), which shall include a confidential portion and a nonconfidential portion consistent with this section and section 14;
- Notice. “(ii) require any manufacturer or processor of a chemical substance on the confidential portion of the list published under paragraph (1) that seeks to maintain an existing claim for protection against disclosure of the specific chemical identity of the chemical substance as confidential pursuant to section 14 to submit a notice under subparagraph (A) that includes such request;
- “(iii) require the substantiation of those claims pursuant to section 14 and in accordance with the review plan described in subparagraph (C); and
- “(iv) move any active chemical substance for which no request was received to maintain an existing claim for protection against disclosure of the specific chemical identity of the chemical substance as confidential from the confidential portion of the list published under paragraph (1) to the nonconfidential portion of that list.
- Regulations. “(C) REVIEW PLAN.—Not later than 1 year after the date on which the Administrator compiles the initial list of active substances pursuant to subparagraph (A), the Administrator shall promulgate a rule that establishes a plan to review all claims to protect the specific chemical identities of chemical substances on the confidential portion of the list published under paragraph (1) that are asserted pursuant to subparagraph (B).
- Claims. “(D) REQUIREMENTS OF REVIEW PLAN.—In establishing the review plan under subparagraph (C), the Administrator shall—
- Time period. “(i) require, at a time specified by the Administrator, all manufacturers or processors asserting claims under subparagraph (B) to substantiate the claim, in accordance with section 14, unless the manufacturer or processor has substantiated the claim in a submission made to the Administrator during the 5-year period ending on the last day of the of the time period specified by the Administrator; and
- “(ii) in accordance with section 14—
- “(I) review each substantiation—

- “(aa) submitted pursuant to clause (i) to determine if the claim qualifies for protection from disclosure; and
- “(bb) submitted previously by a manufacturer or processor and relied on in lieu of the substantiation required pursuant to clause (i), if the substantiation has not been previously reviewed by the Administrator, to determine if the claim warrants protection from disclosure;
- “(II) approve, approve in part and deny in part, or deny each claim; and
- “(III) except as provided in this section and section 14, protect from disclosure information for which the Administrator approves such a claim for a period of 10 years, unless, prior to the expiration of the period—
- “(aa) the person notifies the Administrator that the person is withdrawing the claim, in which case the Administrator shall not protect the information from disclosure; or
- “(bb) the Administrator otherwise becomes aware that the information does not qualify for protection from disclosure, in which case the Administrator shall take the actions described in section 14(g)(2).
- “(E) TIMELINE FOR COMPLETION OF REVIEWS.—
- “(i) IN GENERAL.—The Administrator shall implement the review plan so as to complete reviews of all claims specified in subparagraph (C) not later than 5 years after the date on which the Administrator compiles the initial list of active substances pursuant to subparagraph (A).
- “(ii) CONSIDERATIONS.—
- “(I) IN GENERAL.—The Administrator may extend the deadline for completion of the reviews for not more than 2 additional years, after an adequate public justification, if the Administrator determines that the extension is necessary based on the number of claims needing review and the available resources.
- “(II) ANNUAL REVIEW GOAL AND RESULTS.—At the beginning of each year, the Administrator shall publish an annual goal for reviews and the number of reviews completed in the prior year.
- “(5) ACTIVE AND INACTIVE SUBSTANCES.—
- “(A) IN GENERAL.—The Administrator shall keep designations of active substances and inactive substances on the list published under paragraph (1) current.
- “(B) CHANGE TO ACTIVE STATUS.—
- “(i) IN GENERAL.—Any person that intends to manufacture or process for a nonexempt commercial purpose a chemical substance that is designated as an inactive substance shall notify the Administrator before the date on which the inactive substance is manufactured or processed.

Determination.

Time period.

Notification.

Claims.

Determination.

Publication.

Notification.

- Claims. “(ii) CONFIDENTIAL CHEMICAL IDENTITY.—If a person submitting a notice under clause (i) for an inactive substance on the confidential portion of the list published under paragraph (1) seeks to maintain an existing claim for protection against disclosure of the specific chemical identity of the inactive substance as confidential, the person shall, consistent with the requirements of section 14—
- “(I) in the notice submitted under clause (i), assert the claim; and
- “(II) by not later than 30 days after providing the notice under clause (i), substantiate the claim.
- “(iii) ACTIVE STATUS.—On receiving a notification under clause (i), the Administrator shall—
- “(I) designate the applicable chemical substance as an active substance;
- “(II) pursuant to section 14, promptly review any claim and associated substantiation submitted pursuant to clause (ii) for protection against disclosure of the specific chemical identity of the chemical substance and approve, approve in part and deny in part, or deny the claim;
- “(III) except as provided in this section and section 14, protect from disclosure the specific chemical identity of the chemical substance for which the Administrator approves a claim under subclause (II) for a period of 10 years, unless, prior to the expiration of the period—
- “(aa) the person notifies the Administrator that the person is withdrawing the claim, in which case the Administrator shall not protect the information from disclosure; or
- “(bb) the Administrator otherwise becomes aware that the information does not qualify for protection from disclosure, in which case the Administrator shall take the actions described in section 14(g)(2); and
- “(IV) pursuant to section 6(b), review the priority of the chemical substance as the Administrator determines to be necessary.
- “(C) CATEGORY STATUS.—The list of inactive substances shall not be considered to be a category for purposes of section 26(c).
- “(6) INTERIM LIST OF ACTIVE SUBSTANCES.—Prior to the promulgation of the rule required under paragraph (4)(A), the Administrator shall designate the chemical substances reported under part 711 of title 40, Code of Federal Regulations (as in effect on the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act), during the reporting period that most closely preceded the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, as the interim list of active substances for the purposes of section 6(b).
- “(7) PUBLIC INFORMATION.—Subject to this subsection and section 14, the Administrator shall make available to the public—
- Review.
- Time period.
- Notification.
- Review.

“(A) each specific chemical identity on the nonconfidential portion of the list published under paragraph (1) along with the Administrator’s designation of the chemical substance as an active or inactive substance;

“(B) the unique identifier assigned under section 14, accession number, generic name, and, if applicable, premanufacture notice case number for each chemical substance on the confidential portion of the list published under paragraph (1) for which a claim of confidentiality was received; and

“(C) the specific chemical identity of any active substance for which—

“(i) a claim for protection against disclosure of the specific chemical identity of the active substance was not asserted, as required under this subsection or section 14;

“(ii) all claims for protection against disclosure of the specific chemical identity of the active substance have been denied by the Administrator; or

“(iii) the time period for protection against disclosure of the specific chemical identity of the active substance has expired.

“(8) LIMITATION.—No person may assert a new claim under this subsection or section 14 for protection from disclosure of a specific chemical identity of any active or inactive substance for which a notice is received under paragraph (4)(A)(i) or (5)(B)(i) that is not on the confidential portion of the list published under paragraph (1).

“(9) CERTIFICATION.—Under the rules promulgated under this subsection, manufacturers and processors, as applicable, shall be required—

“(A) to certify that each notice or substantiation the manufacturer or processor submits complies with the requirements of the rule, and that any confidentiality claims are true and correct; and

“(B) to retain a record documenting compliance with the rule and supporting confidentiality claims for a period of 5 years beginning on the last day of the submission period.”

(b) MERCURY INVENTORY.—Section 8(b) of the Toxic Substances Control Act (15 U.S.C. 2607(b)) (as amended by subsection (a)) is further amended by adding at the end the following:

“(10) MERCURY.—

“(A) DEFINITION OF MERCURY.—In this paragraph, notwithstanding section 3(2)(B), the term ‘mercury’ means—

“(i) elemental mercury; and

“(ii) a mercury compound.

“(B) PUBLICATION.—Not later than April 1, 2017, and every 3 years thereafter, the Administrator shall carry out and publish in the Federal Register an inventory of mercury supply, use, and trade in the United States.

“(C) PROCESS.—In carrying out the inventory under subparagraph (B), the Administrator shall—

“(i) identify any manufacturing processes or products that intentionally add mercury; and

Records.  
Time period.  
Effective date.

Federal Register,  
publication.

Determination.  
Regulations.

“(ii) recommend actions, including proposed revisions of Federal law or regulations, to achieve further reductions in mercury use.

“(D) REPORTING.—

“(i) IN GENERAL.—To assist in the preparation of the inventory under subparagraph (B), any person who manufactures mercury or mercury-added products or otherwise intentionally uses mercury in a manufacturing process shall make periodic reports to the Administrator, at such time and including such information as the Administrator shall determine by rule promulgated not later than 2 years after the date of enactment of this paragraph.

“(ii) COORDINATION.—To avoid duplication, the Administrator shall coordinate the reporting under this subparagraph with the Interstate Mercury Education and Reduction Clearinghouse.

“(iii) EXEMPTION.—Clause (i) shall not apply to a person engaged in the generation, handling, or management of mercury-containing waste, unless that person manufactures or recovers mercury in the management of that waste.”.

#### SEC. 9. RELATIONSHIP TO OTHER FEDERAL LAWS.

Section 9 of the Toxic Substances Control Act (15 U.S.C. 2608) is amended—

(1) in subsection (a)—

(A) in paragraph (1)—

(i) by striking “has reasonable basis to conclude” and inserting “determines”;

(ii) by striking “or will present”; and

(iii) by inserting “, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant by the Administrator, under the conditions of use,” after “or the environment”;

(B) in paragraph (2)—

(i) in subparagraph (A), by inserting “, within the time period specified by the Administrator in the report,” after “issues an order”; and

(ii) in subparagraph (B), by inserting “responds within the time period specified by the Administrator in the report and” before “initiates, within 90”;

(C) by redesignating paragraph (3) as paragraph (6);

and

(D) by inserting after paragraph (2) the following:

“(3) The Administrator shall take the actions described in paragraph (4) if the Administrator makes a report under paragraph (1) with respect to a chemical substance or mixture and the agency to which the report was made does not—

“(A) issue the order described in paragraph (2)(A) within the time period specified by the Administrator in the report; or

“(B)(i) respond under paragraph (1) within the timeframe specified by the Administrator in the report; and

“(ii) initiate action within 90 days of publication in the Federal Register of the response described in clause (i).

Reports.  
Time period.  
Deadline.

“(4) If an agency to which a report is submitted under paragraph (1) does not take the actions described in subparagraph (A) or (B) of paragraph (3), the Administrator shall—

“(A) initiate or complete appropriate action under section 6; or

“(B) take any action authorized or required under section 7, as applicable.

“(5) This subsection shall not relieve the Administrator of any obligation to take any appropriate action under section 6(a) or 7 to address risks from the manufacture, processing, distribution in commerce, use, or disposal of a chemical substance or mixture, or any combination of those activities, that are not identified in a report issued by the Administrator under paragraph (1).”;

(2) in subsection (b)—

(A) by striking “The Administrator shall coordinate” and inserting “(1) The Administrator shall coordinate”; and

(B) by adding at the end the following:

“(2) In making a determination under paragraph (1) that it is in the public interest for the Administrator to take an action under this title with respect to a chemical substance or mixture rather than under another law administered in whole or in part by the Administrator, the Administrator shall consider, based on information reasonably available to the Administrator, all relevant aspects of the risk described in paragraph (1) and a comparison of the estimated costs and efficiencies of the action to be taken under this title and an action to be taken under such other law to protect against such risk.”; and

(3) by adding at the end the following:

“(e) EXPOSURE INFORMATION.—In addition to the requirements of subsection (a), if the Administrator obtains information related to exposures or releases of a chemical substance or mixture that may be prevented or reduced under another Federal law, including a law not administered by the Administrator, the Administrator shall make such information available to the relevant Federal agency or office of the Environmental Protection Agency.”.

Determination.

#### SEC. 10. EXPORTS.

(a) IN GENERAL.—Section 12(a)(2) of the Toxic Substances Control Act (15 U.S.C. 2611(a)(2)) is amended by striking “will present” and inserting “presents”.

(b) PROHIBITION ON EXPORT OF CERTAIN MERCURY COMPOUNDS.—Section 12(c) of the Toxic Substances Control Act (15 U.S.C. 2611(c)) is amended—

(1) in the subsection heading, by inserting “AND MERCURY COMPOUNDS” after “MERCURY”; and

(2) by adding at the end the following:

“(7) PROHIBITION ON EXPORT OF CERTAIN MERCURY COMPOUNDS.—

“(A) IN GENERAL.—Effective January 1, 2020, the export of the following mercury compounds is prohibited:

“(i) Mercury (I) chloride or calomel.

“(ii) Mercury (II) oxide.

“(iii) Mercury (II) sulfate.

“(iv) Mercury (II) nitrate.

“(v) Cinnabar or mercury sulphide.

“(vi) Any mercury compound that the Administrator adds to the list published under subparagraph

Effective date.

(B) by rule, on determining that exporting that mercury compound for the purpose of regenerating elemental mercury is technically feasible.

Deadline.  
Federal Register,  
publication.  
List.

“(B) PUBLICATION.—Not later than 90 days after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, and as appropriate thereafter, the Administrator shall publish in the Federal Register a list of the mercury compounds that are prohibited from export under this paragraph.

“(C) PETITION.—Any person may petition the Administrator to add a mercury compound to the list published under subparagraph (B).

“(D) ENVIRONMENTALLY SOUND DISPOSAL.—This paragraph does not prohibit the export of mercury compounds on the list published under subparagraph (B) to member countries of the Organization for Economic Co-operation and Development for environmentally sound disposal, on the condition that no mercury or mercury compounds so exported are to be recovered, recycled, or reclaimed for use, or directly reused, after such export.

Evaluation.

“(E) REPORT.—Not later than 5 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall evaluate any exports of mercury compounds on the list published under subparagraph (B) for disposal that occurred after such date of enactment and shall submit to Congress a report that—

“(i) describes volumes and sources of mercury compounds on the list published under subparagraph (B) exported for disposal;

“(ii) identifies receiving countries of such exports;

“(iii) describes methods of disposal used after such export;

“(iv) identifies issues, if any, presented by the export of mercury compounds on the list published under subparagraph (B);

“(v) includes an evaluation of management options in the United States for mercury compounds on the list published under subparagraph (B), if any, that are commercially available and comparable in cost and efficacy to methods being utilized in such receiving countries; and

Recommendation.

“(vi) makes a recommendation regarding whether Congress should further limit or prohibit the export of mercury compounds on the list published under subparagraph (B) for disposal.

“(F) EFFECT ON OTHER LAW.—Nothing in this paragraph shall be construed to affect the authority of the Administrator under the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.).”

(c) TEMPORARY GENERATOR ACCUMULATION.—Section 5 of the Mercury Export Ban Act of 2008 (42 U.S.C. 6939f) is amended—

(1) in subsection (a)(2), by striking “2013” and inserting “2019”;

(2) in subsection (b)—

(A) in paragraph (1)—

(i) by redesignating subparagraphs (A), (B), and (C), as clauses (i), (ii), and (iii), respectively and indenting appropriately;

(ii) in the first sentence, by striking “After consultation” and inserting the following:

“(A) ASSESSMENT AND COLLECTION.—After consultation”;

(iii) in the second sentence, by striking “The amount of such fees” and inserting the following:

“(B) AMOUNT.—The amount of the fees described in subparagraph (A)”;

(iv) in subparagraph (B) (as so designated)—

(I) in clause (i) (as so redesignated), by striking “publically available not later than October 1, 2012” and inserting “publicly available not later than October 1, 2018”;

(II) in clause (ii) (as so redesignated), by striking “and”;

(III) in clause (iii) (as so redesignated), by striking the period at the end and inserting “, subject to clause (iv); and”;

(IV) by adding at the end the following:

“(iv) for generators temporarily accumulating elemental mercury in a facility subject to subparagraphs (B) and (D)(iv) of subsection (g)(2) if the facility designated in subsection (a) is not operational by January 1, 2019, shall be adjusted to subtract the cost of the temporary accumulation during the period in which the facility designated under subsection (a) is not operational.”; and

(v) by adding at the end the following:

“(C) CONVEYANCE OF TITLE AND PERMITTING.—If the facility designated in subsection (a) is not operational by January 1, 2020, the Secretary—

Deadline.

“(i) shall immediately accept the conveyance of title to all elemental mercury that has accumulated in facilities in accordance with subsection (g)(2)(D), before January 1, 2020, and deliver the accumulated mercury to the facility designated under subsection (a) on the date on which the facility becomes operational;

“(ii) shall pay any applicable Federal permitting costs, including the costs for permits issued under section 3005(c) of the Solid Waste Disposal Act (42 U.S.C. 6925(c)); and

“(iii) shall store, or pay the cost of storage of, until the time at which a facility designated in subsection (a) is operational, accumulated mercury to which the Secretary has title under this subparagraph in a facility that has been issued a permit under section 3005(c) of the Solid Waste Disposal Act (42 U.S.C. 6925(c)).”; and

(B) in paragraph (2), in the first sentence, by striking “paragraph (1)(C)” and inserting “paragraph (1)(B)(iii)”; and (3) in subsection (g)(2)—

(A) in the undesignated material at the end, by striking “This subparagraph” and inserting the following:

“(C) Subparagraph (B)”;

(B) in subparagraph (C) (as designated by subparagraph (A)), by inserting “of that subparagraph” before the period at the end; and

(C) by adding at the end the following:

“(D) A generator producing elemental mercury incidentally from the beneficiation or processing of ore or related pollution control activities may accumulate the mercury produced onsite that is destined for a facility designated by the Secretary under subsection (a) for more than 90 days without a permit issued under section 3005(c) of the Solid Waste Disposal Act (42 U.S.C. 6925(c)), and shall not be subject to the storage prohibition of section 3004(j) of that Act (42 U.S.C. 6924(j)), if—

“(i) the Secretary is unable to accept the mercury at a facility designated by the Secretary under subsection (a) for reasons beyond the control of the generator;

“(ii) the generator certifies in writing to the Secretary that the generator will ship the mercury to a designated facility when the Secretary is able to accept the mercury;

“(iii) the generator certifies in writing to the Secretary that the generator is storing only mercury the generator has produced or recovered onsite and will not sell, or otherwise place into commerce, the mercury; and

“(iv) the generator has obtained an identification number under section 262.12 of title 40, Code of Federal Regulations, and complies with the requirements described in paragraphs (1) through (4) of section 262.34(a) of title 40, Code of Federal Regulations (as in effect on the date of enactment of this subparagraph).

“(E) MANAGEMENT STANDARDS FOR TEMPORARY STORAGE.—Not later than January 1, 2017, the Secretary, after consultation with the Administrator of the Environmental Protection Agency and State agencies in affected States, shall develop and make available guidance that establishes procedures and standards for the management and short-term storage of elemental mercury at a generator covered under subparagraph (D), including requirements to ensure appropriate use of flasks or other suitable containers. Such procedures and standards shall be protective of health and the environment and shall ensure that the elemental mercury is stored in a safe, secure, and effective manner. A generator may accumulate mercury in accordance with subparagraph (D) immediately upon enactment of this subparagraph, and notwithstanding that guidance called for by this paragraph has not been developed or made available.”

(d) INTERIM STATUS.—Section 5(d)(1) of the Mercury Export Ban Act of 2008 (42 U.S.C. 6939f(d)(1)) is amended—

(1) in the fourth sentence, by striking “in existence on or before January 1, 2013,”; and

(2) in the last sentence, by striking “January 1, 2015” and inserting “January 1, 2020”.

Time period.  
Certification.

Compliance.

Deadline.  
Consultation.  
Guidance.  
Procedures.

**SEC. 11. CONFIDENTIAL INFORMATION.**

Section 14 of the Toxic Substances Control Act (15 U.S.C. 2613) is amended to read as follows:

**“SEC. 14. CONFIDENTIAL INFORMATION.**

“(a) **IN GENERAL.**—Except as provided in this section, the Administrator shall not disclose information that is exempt from disclosure pursuant to subsection (a) of section 552 of title 5, United States Code, by reason of subsection (b)(4) of that section—

“(1) that is reported to, or otherwise obtained by, the Administrator under this Act; and

“(2) for which the requirements of subsection (c) are met. In any proceeding under section 552(a) of title 5, United States Code, to obtain information the disclosure of which has been denied because of the provisions of this subsection, the Administrator may not rely on section 552(b)(3) of such title to sustain the Administrator’s action.

“(b) **INFORMATION NOT PROTECTED FROM DISCLOSURE.**—

“(1) **MIXED CONFIDENTIAL AND NONCONFIDENTIAL INFORMATION.**—Information that is protected from disclosure under this section, and which is mixed with information that is not protected from disclosure under this section, does not lose its protection from disclosure notwithstanding that it is mixed with information that is not protected from disclosure.

“(2) **INFORMATION FROM HEALTH AND SAFETY STUDIES.**—Subsection (a) does not prohibit the disclosure of—

“(A) any health and safety study which is submitted under this Act with respect to—

“(i) any chemical substance or mixture which, on the date on which such study is to be disclosed has been offered for commercial distribution; or

“(ii) any chemical substance or mixture for which testing is required under section 4 or for which notification is required under section 5; and

“(B) any information reported to, or otherwise obtained by, the Administrator from a health and safety study which relates to a chemical substance or mixture described in clause (i) or (ii) of subparagraph (A).

This paragraph does not authorize the disclosure of any information, including formulas (including molecular structures) of a chemical substance or mixture, that discloses processes used in the manufacturing or processing of a chemical substance or mixture or, in the case of a mixture, the portion of the mixture comprised by any of the chemical substances in the mixture.

“(3) **OTHER INFORMATION NOT PROTECTED FROM DISCLOSURE.**—Subsection (a) does not prohibit the disclosure of—

“(A) any general information describing the manufacturing volumes, expressed as specific aggregated volumes or, if the Administrator determines that disclosure of specific aggregated volumes would reveal confidential information, expressed in ranges; or

“(B) a general description of a process used in the manufacture or processing and industrial, commercial, or consumer functions and uses of a chemical substance, mixture, or article containing a chemical substance or mixture, including information specific to an industry or industry

Determination.

sector that customarily would be shared with the general public or within an industry or industry sector.

Regulation.  
Applicability.

“(4) BANS AND PHASE-OUTS.—

“(A) IN GENERAL.—If the Administrator promulgates a rule pursuant to section 6(a) that establishes a ban or phase-out of a chemical substance or mixture, the protection from disclosure of any information under this section with respect to the chemical substance or mixture shall be presumed to no longer apply, subject to subsection (g)(1)(E) and subparagraphs (B) and (C) of this paragraph.

Applicability.

“(B) LIMITATIONS.—

“(i) CRITICAL USE.—In the case of a chemical substance or mixture for which a specific condition of use is subject to an exemption pursuant to section 6(g), if the Administrator establishes a ban or phase-out described in subparagraph (A) with respect to the chemical substance or mixture, the presumption against protection under such subparagraph shall only apply to information that relates solely to any conditions of use of the chemical substance or mixture to which the exemption does not apply.

“(ii) EXPORT.—In the case of a chemical substance or mixture for which there is manufacture, processing, or distribution in commerce that meets the conditions of section 12(a)(1), if the Administrator establishes a ban or phase-out described in subparagraph (A) with respect to the chemical substance or mixture, the presumption against protection under such subparagraph shall only apply to information that relates solely to any other manufacture, processing, or distribution in commerce of the chemical substance or mixture for the conditions of use subject to the ban or phase-out, unless the Administrator makes the determination in section 12(a)(2).

Applicability.

“(iii) SPECIFIC CONDITIONS OF USE.—In the case of a chemical substance or mixture for which the Administrator establishes a ban or phase-out described in subparagraph (A) with respect to a specific condition of use of the chemical substance or mixture, the presumption against protection under such subparagraph shall only apply to information that relates solely to the condition of use of the chemical substance or mixture for which the ban or phase-out is established.

Deadline.  
Records.  
Review.

“(C) REQUEST FOR NONDISCLOSURE.—

“(i) IN GENERAL.—A manufacturer or processor of a chemical substance or mixture subject to a ban or phase-out described in this paragraph may submit to the Administrator, within 30 days of receiving a notification under subsection (g)(2)(A), a request, including documentation supporting such request, that some or all of the information to which the notice applies should not be disclosed or that its disclosure should be delayed, and the Administrator shall review the request under subsection (g)(1)(E).

“(ii) EFFECT OF NO REQUEST OR DENIAL.—If no request for nondisclosure or delay is submitted to the Administrator under this subparagraph, or the

Administrator denies such a request under subsection (g)(1)(A), the information shall not be protected from disclosure under this section.

“(5) CERTAIN REQUESTS.—If a request is made to the Administrator under section 552(a) of title 5, United States Code, for information reported to or otherwise obtained by the Administrator under this Act that is not protected from disclosure under this subsection, the Administrator may not deny the request on the basis of section 552(b)(4) of title 5, United States Code.

“(c) REQUIREMENTS FOR CONFIDENTIALITY CLAIMS.—

“(1) ASSERTION OF CLAIMS.—

“(A) IN GENERAL.—A person seeking to protect from disclosure any information that person submits under this Act (including information described in paragraph (2)) shall assert to the Administrator a claim for protection from disclosure concurrent with submission of the information, in accordance with such rules regarding a claim for protection from disclosure as the Administrator has promulgated or may promulgate pursuant to this title.

“(B) INCLUSION.—An assertion of a claim under subparagraph (A) shall include a statement that the person has—

“(i) taken reasonable measures to protect the confidentiality of the information;

“(ii) determined that the information is not required to be disclosed or otherwise made available to the public under any other Federal law;

“(iii) a reasonable basis to conclude that disclosure of the information is likely to cause substantial harm to the competitive position of the person; and

“(iv) a reasonable basis to believe that the information is not readily discoverable through reverse engineering.

“(C) ADDITIONAL REQUIREMENTS FOR CLAIMS REGARDING CHEMICAL IDENTITY INFORMATION.—In the case of a claim under subparagraph (A) for protection from disclosure of a specific chemical identity, the claim shall include a structurally descriptive generic name for the chemical substance that the Administrator may disclose to the public, subject to the condition that such generic name shall—

“(i) be consistent with guidance developed by the Administrator under paragraph (4)(A); and

“(ii) describe the chemical structure of the chemical substance as specifically as practicable while protecting those features of the chemical structure—

“(I) that are claimed as confidential; and

“(II) the disclosure of which would be likely to cause substantial harm to the competitive position of the person.

“(2) INFORMATION GENERALLY NOT SUBJECT TO SUBSTANTIATION REQUIREMENTS.—Subject to subsection (f), the following information shall not be subject to substantiation requirements under paragraph (3):

“(A) Specific information describing the processes used in manufacture or processing of a chemical substance, mixture, or article.

“(B) Marketing and sales information.

“(C) Information identifying a supplier or customer.

“(D) In the case of a mixture, details of the full composition of the mixture and the respective percentages of constituents.

“(E) Specific information regarding the use, function, or application of a chemical substance or mixture in a process, mixture, or article.

“(F) Specific production or import volumes of the manufacturer or processor.

“(G) Prior to the date on which a chemical substance is first offered for commercial distribution, the specific chemical identity of the chemical substance, including the chemical name, molecular formula, Chemical Abstracts Service number, and other information that would identify the specific chemical substance, if the specific chemical identity was claimed as confidential at the time it was submitted in a notice under section 5.

“(3) SUBSTANTIATION REQUIREMENTS.—Except as provided in paragraph (2), a person asserting a claim to protect information from disclosure under this section shall substantiate the claim, in accordance with such rules as the Administrator has promulgated or may promulgate pursuant to this section.

“(4) GUIDANCE.—The Administrator shall develop guidance regarding—

“(A) the determination of structurally descriptive generic names, in the case of claims for the protection from disclosure of specific chemical identity; and

“(B) the content and form of the statements of need and agreements required under paragraphs (4), (5), and (6) of subsection (d).

“(5) CERTIFICATION.—An authorized official of a person described in paragraph (1)(A) shall certify that the statement required to assert a claim submitted pursuant to paragraph (1)(B), and any information required to substantiate a claim submitted pursuant to paragraph (3), are true and correct.

Contracts.

“(d) EXCEPTIONS TO PROTECTION FROM DISCLOSURE.—Information described in subsection (a)—

“(1) shall be disclosed to an officer or employee of the United States—

“(A) in connection with the official duties of that person under any Federal law for the protection of health or the environment; or

“(B) for a specific Federal law enforcement purpose;

“(2) shall be disclosed to a contractor of the United States and employees of that contractor—

“(A) if, in the opinion of the Administrator, the disclosure is necessary for the satisfactory performance by the contractor of a contract with the United States for the performance of work in connection with this Act; and

“(B) subject to such conditions as the Administrator may specify;

Determination.

“(3) shall be disclosed if the Administrator determines that disclosure is necessary to protect health or the environment

against an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant by the Administrator under the conditions of use;

“(4) shall be disclosed to a State, political subdivision of a State, or tribal government, on written request, for the purpose of administration or enforcement of a law, if such entity has 1 or more applicable agreements with the Administrator that are consistent with the guidance developed under subsection (c)(4)(B) and ensure that the entity will take appropriate measures, and has adequate authority, to maintain the confidentiality of the information in accordance with procedures comparable to the procedures used by the Administrator to safeguard the information;

“(5) shall be disclosed to a health or environmental professional employed by a Federal or State agency or tribal government or a treating physician or nurse in a nonemergency situation if such person provides a written statement of need and agrees to sign a written confidentiality agreement with the Administrator, subject to the conditions that—

“(A) the statement of need and confidentiality agreement are consistent with the guidance developed under subsection (c)(4)(B);

“(B) the statement of need shall be a statement that the person has a reasonable basis to suspect that—

“(i) the information is necessary for, or will assist in—

“(I) the diagnosis or treatment of 1 or more individuals; or

“(II) responding to an environmental release or exposure; and

“(ii) 1 or more individuals being diagnosed or treated have been exposed to the chemical substance or mixture concerned, or an environmental release of or exposure to the chemical substance or mixture concerned has occurred; and

“(C) the person will not use the information for any purpose other than the health or environmental needs asserted in the statement of need, except as otherwise may be authorized by the terms of the agreement or by the person who has a claim under this section with respect to the information;

“(6) shall be disclosed in the event of an emergency to a treating or responding physician, nurse, agent of a poison control center, public health or environmental official of a State, political subdivision of a State, or tribal government, or first responder (including any individual duly authorized by a Federal agency, State, political subdivision of a State, or tribal government who is trained in urgent medical care or other emergency procedures, including a police officer, firefighter, or emergency medical technician) if such person requests the information, subject to the conditions that such person shall—

“(A) have a reasonable basis to suspect that—

“(i) a medical, public health, or environmental emergency exists;

“(ii) the information is necessary for, or will assist in, emergency or first-aid diagnosis or treatment; or

“(iii) 1 or more individuals being diagnosed or treated have likely been exposed to the chemical substance or mixture concerned, or a serious environmental release of or exposure to the chemical substance or mixture concerned has occurred; and

“(B) if requested by a person who has a claim with respect to the information under this section—

“(i) provide a written statement of need and agree to sign a confidentiality agreement, as described in paragraph (5); and

“(ii) submit to the Administrator such statement of need and confidentiality agreement as soon as practicable, but not necessarily before the information is disclosed;

Determination.

“(7) may be disclosed if the Administrator determines that disclosure is relevant in a proceeding under this Act, subject to the condition that the disclosure is made in such a manner as to preserve confidentiality to the extent practicable without impairing the proceeding;

“(8) shall be disclosed if the information is required to be made public under any other provision of Federal law; and

“(9) shall be disclosed as required pursuant to discovery, subpoena, other court order, or any other judicial process otherwise allowed under applicable Federal or State law.

“(e) DURATION OF PROTECTION FROM DISCLOSURE.—

“(1) IN GENERAL.—Subject to paragraph (2), subsection (f)(3), and section 8(b), the Administrator shall protect from disclosure information described in subsection (a)—

“(A) in the case of information described in subsection (c)(2), until such time as—

Notification.

“(i) the person that asserted the claim notifies the Administrator that the person is withdrawing the claim, in which case the information shall not be protected from disclosure under this section; or

“(ii) the Administrator becomes aware that the information does not qualify for protection from disclosure under this section, in which case the Administrator shall take any actions required under subsections (f) and (g); and

“(B) in the case of information other than information described in subsection (c)(2)—

Time period.

“(i) for a period of 10 years from the date on which the person asserts the claim with respect to the information submitted to the Administrator; or

“(ii) if applicable before the expiration of such 10-year period, until such time as—

Notification.

“(I) the person that asserted the claim notifies the Administrator that the person is withdrawing the claim, in which case the information shall not be protected from disclosure under this section; or

“(II) the Administrator becomes aware that the information does not qualify for protection from disclosure under this section, in which case the

Administrator shall take any actions required under subsections (f) and (g).

“(2) EXTENSIONS.—

“(A) IN GENERAL.—In the case of information other than information described in subsection (c)(2), not later than the date that is 60 days before the expiration of the period described in paragraph (1)(B)(i), the Administrator shall provide to the person that asserted the claim a notice of the impending expiration of the period.

Deadlines.  
Notice.

“(B) REQUEST.—

“(i) IN GENERAL.—Not later than the date that is 30 days before the expiration of the period described in paragraph (1)(B)(i), a person reasserting the relevant claim shall submit to the Administrator a request for extension substantiating, in accordance with subsection (c)(3), the need to extend the period.

“(ii) ACTION BY ADMINISTRATOR.—Not later than the date of expiration of the period described in paragraph (1)(B)(i), the Administrator shall, in accordance with subsection (g)(1)—

“(I) review the request submitted under clause (i);

Review.

“(II) make a determination regarding whether the claim for which the request was submitted continues to meet the relevant requirements of this section; and

Determination.

“(III)(aa) grant an extension of 10 years; or

“(bb) deny the request.

“(C) NO LIMIT ON NUMBER OF EXTENSIONS.—There shall be no limit on the number of extensions granted under this paragraph, if the Administrator determines that the relevant request under subparagraph (B)(i)—

Determination.

“(i) establishes the need to extend the period; and

“(ii) meets the requirements established by the Administrator.

“(f) REVIEW AND RESUBSTANTIATION.—

“(1) DISCRETION OF ADMINISTRATOR.—The Administrator may require any person that has claimed protection for information from disclosure under this section, whether before, on, or after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, to reassert and substantiate or resubstantiate the claim in accordance with this section—

“(A) after the chemical substance is designated as a high-priority substance under section 6(b);

“(B) for any chemical substance designated as an active substance under section 8(b)(5)(B)(iii); or

“(C) if the Administrator determines that disclosure of certain information currently protected from disclosure would be important to assist the Administrator in conducting risk evaluations or promulgating rules under section 6.

Determination.

“(2) REVIEW REQUIRED.—The Administrator shall review a claim for protection of information from disclosure under this section and require any person that has claimed protection for that information, whether before, on, or after the date of enactment of the Frank R. Lautenberg Chemical Safety

for the 21st Century Act, to reassert and substantiate or re-substantiate the claim in accordance with this section—

“(A) as necessary to determine whether the information qualifies for an exemption from disclosure in connection with a request for information received by the Administrator under section 552 of title 5, United States Code;

“(B) if the Administrator has a reasonable basis to believe that the information does not qualify for protection from disclosure under this section; or

“(C) for any chemical substance the Administrator determines under section 6(b)(4)(A) presents an unreasonable risk of injury to health or the environment.

Claims.  
Determination.

“(3) PERIOD OF PROTECTION.—If the Administrator requires a person to reassert and substantiate or resubstantiate a claim under this subsection, and determines that the claim continues to meet the relevant requirements of this section, the Administrator shall protect the information subject to the claim from disclosure for a period of 10 years from the date of such determination, subject to any subsequent requirement by the Administrator under this subsection.

“(g) DUTIES OF ADMINISTRATOR.—

“(1) DETERMINATION.—

Claims.  
Deadlines.

“(A) IN GENERAL.—Except for claims regarding information described in subsection (c)(2), the Administrator shall, subject to subparagraph (C), not later than 90 days after the receipt of a claim under subsection (c), and not later than 30 days after the receipt of a request for extension of a claim under subsection (e) or a request under subsection (b)(4)(C), review and approve, approve in part and deny in part, or deny the claim or request.

“(B) REASONS FOR DENIAL.—If the Administrator denies or denies in part a claim or request under subparagraph (A) the Administrator shall provide to the person that asserted the claim or submitted the request a written statement of the reasons for the denial or denial in part of the claim or request.

“(C) SUBSETS.—The Administrator shall—

“(i) except with respect to information described in subsection (c)(2)(G), review all claims or requests under this section for the protection from disclosure of the specific chemical identity of a chemical substance; and

“(ii) review a representative subset, comprising at least 25 percent, of all other claims or requests for protection from disclosure under this section.

“(D) EFFECT OF FAILURE TO ACT.—The failure of the Administrator to make a decision regarding a claim or request for protection from disclosure or extension under this section shall not have the effect of denying or eliminating a claim or request for protection from disclosure.

“(E) DETERMINATION OF REQUESTS UNDER SUBSECTION (b)(4)(C).—With respect to a request submitted under subsection (b)(4)(C), the Administrator shall, with the objective of ensuring that information relevant to the protection of health and the environment is disclosed to the extent practicable, determine whether the documentation provided by the person rebuts what shall be the presumption of

the Administrator that the public interest in the disclosure of the information outweighs the public or proprietary interest in maintaining the protection for all or a portion of the information that the person has requested not be disclosed or for which disclosure be delayed.

“(2) NOTIFICATION.—

Claims.

“(A) IN GENERAL.—Except as provided in subparagraph (B) and subsections (b), (d), and (e), if the Administrator denies or denies in part a claim or request under paragraph (1), concludes, in accordance with this section, that the information does not qualify for protection from disclosure, intends to disclose information pursuant to subsection (d), or promulgates a rule under section 6(a) establishing a ban or phase-out with respect to a chemical substance or mixture, the Administrator shall notify, in writing, the person that asserted the claim or submitted the request of the intent of the Administrator to disclose the information or not protect the information from disclosure under this section. The notice shall be furnished by certified mail (return receipt requested), by personal delivery, or by other means that allows verification of the fact and date of receipt.

“(B) DISCLOSURE OF INFORMATION.—Except as provided in subparagraph (C), the Administrator shall not disclose information under this subsection until the date that is 30 days after the date on which the person that asserted the claim or submitted the request receives notification under subparagraph (A).

Deadline.

“(C) EXCEPTIONS.—

“(i) FIFTEEN DAY NOTIFICATION.—For information the Administrator intends to disclose under subsections (d)(3), (d)(4), (d)(5), and (j), the Administrator shall not disclose the information until the date that is 15 days after the date on which the person that asserted the claim or submitted the request receives notification under subparagraph (A), except that, with respect to information to be disclosed under subsection (d)(3), if the Administrator determines that disclosure of the information is necessary to protect against an imminent and substantial harm to health or the environment, no prior notification shall be necessary.

Determination.

“(ii) NOTIFICATION AS SOON AS PRACTICABLE.—For information the Administrator intends to disclose under paragraph (6) of subsection (d), the Administrator shall notify the person that submitted the information that the information has been disclosed as soon as practicable after disclosure of the information.

“(iii) NO NOTIFICATION REQUIRED.—Notification shall not be required—

“(I) for the disclosure of information under paragraphs (1), (2), (7), or (8) of subsection (d); or

“(II) for the disclosure of information for which—

“(aa) the Administrator has provided to the person that asserted the claim a notice under subsection (e)(2)(A); and

“(bb) such person does not submit to the Administrator a request under subsection (e)(2)(B) on or before the deadline established in subsection (e)(2)(B)(i).

“(D) APPEALS.—

“(i) ACTION TO RESTRAIN DISCLOSURE.—If a person receives a notification under this paragraph and believes the information is protected from disclosure under this section, before the date on which the information is to be disclosed pursuant to subparagraph (B) or (C) the person may bring an action to restrain disclosure of the information in—

“(I) the United States district court of the district in which the complainant resides or has the principal place of business; or

“(II) the United States District Court for the District of Columbia.

“(ii) NO DISCLOSURE.—

“(I) IN GENERAL.—Subject to subsection (d), the Administrator shall not disclose information that is the subject of an appeal under this paragraph before the date on which the applicable court rules on an action under clause (i).

“(II) EXCEPTION.—Subclause (I) shall not apply to disclosure of information described under subsections (d)(4) and (j).

Consultation.

“(3) REQUEST AND NOTIFICATION SYSTEM.—The Administrator, in consultation with the Director of the Centers for Disease Control and Prevention, shall develop a request and notification system that, in a format and language that is readily accessible and understandable, allows for expedient and swift access to information disclosed pursuant to paragraphs (5) and (6) of subsection (d).

“(4) UNIQUE IDENTIFIER.—The Administrator shall—

“(A)(i) develop a system to assign a unique identifier to each specific chemical identity for which the Administrator approves a request for protection from disclosure, which shall not be either the specific chemical identity or a structurally descriptive generic term; and

Applicability.

“(ii) apply that identifier consistently to all information relevant to the applicable chemical substance;

Deadline.  
Publication.  
List.

“(B) annually publish and update a list of chemical substances, referred to by their unique identifiers, for which claims to protect the specific chemical identity from disclosure have been approved, including the expiration date for each such claim;

“(C) ensure that any nonconfidential information received by the Administrator with respect to a chemical substance included on the list published under subparagraph (B) while the specific chemical identity of the chemical substance is protected from disclosure under this section identifies the chemical substance using the unique identifier; and

“(D) for each claim for protection of a specific chemical identity that has been denied by the Administrator or expired, or that has been withdrawn by the person who asserted the claim, and for which the Administrator has used a unique identifier assigned under this paragraph to protect the specific chemical identity in information that the Administrator has made public, clearly link the specific chemical identity to the unique identifier in such information to the extent practicable.

“(h) CRIMINAL PENALTY FOR WRONGFUL DISCLOSURE.—

“(1) INDIVIDUALS SUBJECT TO PENALTY.—

“(A) IN GENERAL.—Subject to subparagraph (C) and paragraph (2), an individual described in subparagraph (B) shall be fined under title 18, United States Code, or imprisoned for not more than 1 year, or both.

“(B) DESCRIPTION.—An individual referred to in subparagraph (A) is an individual who—

“(i) pursuant to this section, obtained possession of, or has access to, information protected from disclosure under this section; and

“(ii) knowing that the information is protected from disclosure under this section, willfully discloses the information in any manner to any person not entitled to receive that information.

“(C) EXCEPTION.—This paragraph shall not apply to any medical professional (including an emergency medical technician or other first responder) who discloses any information obtained under paragraph (5) or (6) of subsection (d) to a patient treated by the medical professional, or to a person authorized to make medical or health care decisions on behalf of such a patient, as needed for the diagnosis or treatment of the patient.

“(2) OTHER LAWS.—Section 1905 of title 18, United States Code, shall not apply with respect to the publishing, divulging, disclosure, or making known of, or making available, information reported to or otherwise obtained by the Administrator under this Act.

“(i) APPLICABILITY.—

“(1) IN GENERAL.—Except as otherwise provided in this section, section 8, or any other applicable Federal law, the Administrator shall have no authority—

“(A) to require the substantiation or resubstantiation of a claim for the protection from disclosure of information reported to or otherwise obtained by the Administrator under this Act prior to the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act; or

“(B) to impose substantiation or resubstantiation requirements, with respect to the protection of information described in subsection (a), under this Act that are more extensive than those required under this section.

“(2) ACTIONS PRIOR TO PROMULGATION OF RULES.—Nothing in this Act prevents the Administrator from reviewing, requiring substantiation or resubstantiation of, or approving, approving in part, or denying any claim for the protection from disclosure of information before the effective date of such rules applicable to those claims as the Administrator may

promulgate after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act.

“(j) ACCESS BY CONGRESS.—Notwithstanding any limitation contained in this section or any other provision of law, all information reported to or otherwise obtained by the Administrator (or any representative of the Administrator) under this Act shall be made available, upon written request of any duly authorized committee of the Congress, to such committee.”.

**SEC. 12. PENALTIES.**

Section 16 of the Toxic Substances Control Act (15 U.S.C. 2615) is amended—

(1) in subsection (a)(1), by striking “\$25,000” and inserting “\$37,500”; and

(2) in subsection (b)—

(A) by striking “Any person” and inserting the following:

“(1) IN GENERAL.—Any person”;

(B) by striking “\$25,000” and inserting “\$50,000”; and

(C) by adding at the end the following:

“(2) IMMINENT DANGER OF DEATH OR SERIOUS BODILY INJURY.—

“(A) IN GENERAL.—Any person who knowingly and willfully violates any provision of section 15 or 409, and who knows at the time of the violation that the violation places an individual in imminent danger of death or serious bodily injury, shall be subject on conviction to a fine of not more than \$250,000, or imprisonment for not more than 15 years, or both.

“(B) ORGANIZATIONS.—Notwithstanding the penalties described in subparagraph (A), an organization that commits a knowing violation described in subparagraph (A) shall be subject on conviction to a fine of not more than \$1,000,000 for each violation.

“(C) INCORPORATION OF CORRESPONDING PROVISIONS.—Subparagraphs (B) through (F) of section 113(c)(5) of the Clean Air Act (42 U.S.C. 7413(c)(5)(B)–(F)) shall apply to the prosecution of a violation under this paragraph.”.

Applicability.

**SEC. 13. STATE-FEDERAL RELATIONSHIP.**

Section 18 of the Toxic Substances Control Act (15 U.S.C. 2617) is amended—

(1) by amending subsection (a) to read as follows:

“(a) IN GENERAL.—

“(1) ESTABLISHMENT OR ENFORCEMENT.—Except as otherwise provided in subsections (c), (d), (e), (f), and (g), and subject to paragraph (2), no State or political subdivision of a State may establish or continue to enforce any of the following:

“(A) DEVELOPMENT OF INFORMATION.—A statute or administrative action to require the development of information about a chemical substance or category of chemical substances that is reasonably likely to produce the same information required under section 4, 5, or 6 in—

“(i) a rule promulgated by the Administrator;

“(ii) a consent agreement entered into by the Administrator; or

“(iii) an order issued by the Administrator.

“(B) CHEMICAL SUBSTANCES FOUND NOT TO PRESENT AN UNREASONABLE RISK OR RESTRICTED.—A statute, criminal penalty, or administrative action to prohibit or otherwise restrict the manufacture, processing, or distribution in commerce or use of a chemical substance—

“(i) for which the determination described in section 6(i)(1) is made, consistent with the scope of the risk evaluation under section (6)(b)(4)(D); or

“(ii) for which a final rule is promulgated under section 6(a), after the effective date of the rule issued under section 6(a) for the chemical substance, consistent with the scope of the risk evaluation under section (6)(b)(4)(D).

“(C) SIGNIFICANT NEW USE.—A statute or administrative action requiring the notification of a use of a chemical substance that the Administrator has specified as a significant new use and for which the Administrator has required notification pursuant to a rule promulgated under section 5.

“(2) EFFECTIVE DATE OF PREEMPTION.—Under this subsection, Federal preemption of statutes and administrative actions applicable to specific chemical substances shall not occur until the effective date of the applicable action described in paragraph (1) taken by the Administrator.”;

(2) by amending subsection (b) to read as follows:

“(b) NEW STATUTES, CRIMINAL PENALTIES, OR ADMINISTRATIVE ACTIONS CREATING PROHIBITIONS OR OTHER RESTRICTIONS.—

“(1) IN GENERAL.—Except as provided in subsections (c), (d), (e), (f), and (g), beginning on the date on which the Administrator defines the scope of a risk evaluation for a chemical substance under section 6(b)(4)(D) and ending on the date on which the deadline established pursuant to section 6(b)(4)(G) for completion of the risk evaluation expires, or on the date on which the Administrator publishes the risk evaluation under section 6(b)(4)(C), whichever is earlier, no State or political subdivision of a State may establish a statute, criminal penalty, or administrative action prohibiting or otherwise restricting the manufacture, processing, distribution in commerce, or use of such chemical substance that is a high-priority substance designated under section 6(b)(1)(B)(i).

Time period.

“(2) EFFECT OF SUBSECTION.—This subsection does not restrict the authority of a State or political subdivision of a State to continue to enforce any statute enacted, criminal penalty assessed, or administrative action taken, prior to the date on which the Administrator defines and publishes the scope of a risk evaluation under section 6(b)(4)(D).”; and

(3) by adding at the end the following:

“(c) SCOPE OF PREEMPTION.—Federal preemption under subsections (a) and (b) of statutes, criminal penalties, and administrative actions applicable to specific chemical substances shall apply only to—

Applicability.

“(1) with respect to subsection (a)(1)(A), the chemical substances or category of chemical substances subject to a rule, order, or consent agreement under section 4, 5, or 6;

“(2) with respect to subsection (b), the hazards, exposures, risks, and uses or conditions of use of such chemical substances

included in the scope of the risk evaluation pursuant to section 6(b)(4)(D);

“(3) with respect to subsection (a)(1)(B), the hazards, exposures, risks, and uses or conditions of use of such chemical substances included in any final action the Administrator takes pursuant to section 6(a) or 6(i)(1); or

“(4) with respect to subsection (a)(1)(C), the uses of such chemical substances that the Administrator has specified as significant new uses and for which the Administrator has required notification pursuant to a rule promulgated under section 5.

“(d) EXCEPTIONS.—

“(1) NO PREEMPTION OF STATUTES AND ADMINISTRATIVE ACTIONS.—

“(A) IN GENERAL.—Nothing in this Act, nor any amendment made by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, nor any rule, standard of performance, risk evaluation, or scientific assessment implemented pursuant to this Act, shall affect the right of a State or a political subdivision of a State to adopt or enforce any rule, standard of performance, risk evaluation, scientific assessment, or any other protection for public health or the environment that—

“(i) is adopted or authorized under the authority of any other Federal law or adopted to satisfy or obtain authorization or approval under any other Federal law;

“(ii) implements a reporting, monitoring, or other information obligation for the chemical substance not otherwise required by the Administrator under this Act or required under any other Federal law;

“(iii) is adopted pursuant to authority under a law of the State or political subdivision of the State related to water quality, air quality, or waste treatment or disposal, except to the extent that the action—

“(I) imposes a restriction on the manufacture, processing, distribution in commerce, or use of a chemical substance; and

“(II)(aa) addresses the same hazards and exposures, with respect to the same conditions of use as are included in the scope of the risk evaluation published pursuant to section 6(b)(4)(D), but is inconsistent with the action of the Administrator; or

“(bb) would cause a violation of the applicable action by the Administrator under section 5 or 6; or

“(iv) subject to subparagraph (B), is identical to a requirement prescribed by the Administrator.

“(B) IDENTICAL REQUIREMENTS.—

“(i) IN GENERAL.—The penalties and other sanctions applicable under a law of a State or political subdivision of a State in the event of noncompliance with the identical requirement shall be no more stringent than the penalties and other sanctions available to the Administrator under section 16 of this Act.

“(ii) PENALTIES.—In the case of an identical requirement—

“(I) a State or political subdivision of a State may not assess a penalty for a specific violation for which the Administrator has assessed an adequate penalty under section 16; and

“(II) if a State or political subdivision of a State has assessed a penalty for a specific violation, the Administrator may not assess a penalty for that violation in an amount that would cause the total of the penalties assessed for the violation by the State or political subdivision of a State and the Administrator combined to exceed the maximum amount that may be assessed for that violation by the Administrator under section 16.

“(2) APPLICABILITY TO CERTAIN RULES OR ORDERS.—

“(A) PRIOR RULES AND ORDERS.—Nothing in this section shall be construed as modifying the preemptive effect under this section, as in effect on the day before the effective date of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, of any rule or order promulgated or issued under this Act prior to that effective date.

“(B) CERTAIN CHEMICAL SUBSTANCES AND MIXTURES.—With respect to a chemical substance or mixture for which any rule or order was promulgated or issued under section 6 prior to the effective date of the Frank R. Lautenberg Chemical Safety for the 21st Century Act with respect to manufacturing, processing, distribution in commerce, use, or disposal of the chemical substance or mixture, nothing in this section shall be construed as modifying the preemptive effect of this section as in effect prior to the enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act of any rule or order that is promulgated or issued with respect to such chemical substance or mixture under section 6 after that effective date, unless the latter rule or order is with respect to a chemical substance or mixture containing a chemical substance and follows a designation of that chemical substance as a high-priority substance under section 6(b)(1)(B)(i), the identification of that chemical substance under section 6(b)(2)(A), or the selection of that chemical substance for risk evaluation under section 6(b)(4)(E)(iv)(II).

“(e) PRESERVATION OF CERTAIN LAWS.—

“(1) IN GENERAL.—Nothing in this Act, subject to subsection (g) of this section, shall—

“(A) be construed to preempt or otherwise affect the authority of a State or political subdivision of a State to continue to enforce any action taken or requirement imposed or requirement enacted relating to a specific chemical substance before April 22, 2016, under the authority of a law of the State or political subdivision of the State that prohibits or otherwise restricts manufacturing, processing, distribution in commerce, use, or disposal of a chemical substance; or

“(B) be construed to preempt or otherwise affect any action taken pursuant to a State law that was in effect on August 31, 2003.

“(2) EFFECT OF SUBSECTION.—This subsection does not affect, modify, or alter the relationship between Federal law

and laws of a State or political subdivision of a State pursuant to any other Federal law.

“(f) WAIVERS.—

Determination.

“(1) DISCRETIONARY EXEMPTIONS.—Upon application of a State or political subdivision of a State, the Administrator may, by rule, exempt from subsection (a), under such conditions as may be prescribed in the rule, a statute, criminal penalty, or administrative action of that State or political subdivision of the State that relates to the effects of exposure to a chemical substance under the conditions of use if the Administrator determines that—

“(A) compelling conditions warrant granting the waiver to protect health or the environment;

“(B) compliance with the proposed requirement of the State or political subdivision of the State would not unduly burden interstate commerce in the manufacture, processing, distribution in commerce, or use of a chemical substance;

“(C) compliance with the proposed requirement of the State or political subdivision of the State would not cause a violation of any applicable Federal law, rule, or order; and

“(D) in the judgment of the Administrator, the proposed requirement of the State or political subdivision of the State is designed to address a risk of a chemical substance, under the conditions of use, that was identified—

“(i) consistent with the best available science;

“(ii) using supporting studies conducted in accordance with sound and objective scientific practices; and

“(iii) based on the weight of the scientific evidence.

Determination.

“(2) REQUIRED EXEMPTIONS.—Upon application of a State or political subdivision of a State, the Administrator shall exempt from subsection (b) a statute or administrative action of a State or political subdivision of a State that relates to the effects of exposure to a chemical substance under the conditions of use if the Administrator determines that—

“(A)(i) compliance with the proposed requirement of the State or political subdivision of the State would not unduly burden interstate commerce in the manufacture, processing, distribution in commerce, or use of a chemical substance;

“(ii) compliance with the proposed requirement of the State or political subdivision of the State would not cause a violation of any applicable Federal law, rule, or order; and

“(iii) the State or political subdivision of the State has a concern about the chemical substance or use of the chemical substance based in peer-reviewed science; or

Deadline.

“(B) no later than the date that is 18 months after the date on which the Administrator has initiated the prioritization process for a chemical substance under the rule promulgated pursuant to section 6(b)(1)(A), or the date on which the Administrator publishes the scope of the risk evaluation for a chemical substance under section 6(b)(4)(D), whichever is sooner, the State or political subdivision of the State has enacted a statute or proposed or finalized an administrative action intended to prohibit

or otherwise restrict the manufacture, processing, distribution in commerce, or use of the chemical substance.

“(3) DETERMINATION OF A WAIVER REQUEST.—The duty of the Administrator to grant or deny a waiver application shall be nondelegable and shall be exercised—

Deadlines.

“(A) not later than 180 days after the date on which an application under paragraph (1) is submitted; and

“(B) not later than 110 days after the date on which an application under paragraph (2) is submitted.

“(4) FAILURE TO MAKE A DETERMINATION.—If the Administrator fails to make a determination under paragraph (3)(B) during the 110-day period beginning on the date on which an application under paragraph (2) is submitted, the statute or administrative action of the State or political subdivision of the State that was the subject of the application shall not be considered to be an existing statute or administrative action for purposes of subsection (b) by reason of the failure of the Administrator to make a determination.

Time period.

“(5) NOTICE AND COMMENT.—Except in the case of an application approved under paragraph (9), the application of a State or political subdivision of a State under this subsection shall be subject to public notice and comment.

“(6) FINAL AGENCY ACTION.—The decision of the Administrator on the application of a State or political subdivision of a State shall be—

“(A) considered to be a final agency action; and

“(B) subject to judicial review.

“(7) DURATION OF WAIVERS.—A waiver granted under paragraph (2) or approved under paragraph (9) shall remain in effect until such time as the Administrator publishes the risk evaluation under section 6(b).

“(8) JUDICIAL REVIEW OF WAIVERS.—Not later than 60 days after the date on which the Administrator makes a determination on an application of a State or political subdivision of a State under paragraph (1) or (2), any person may file a petition for judicial review in the United States Court of Appeals for the District of Columbia Circuit, which shall have exclusive jurisdiction over the determination.

Deadline.

“(9) APPROVAL.—

“(A) AUTOMATIC APPROVAL.—If the Administrator fails to meet the deadline established under paragraph (3)(B), the application of a State or political subdivision of a State under paragraph (2) shall be automatically approved, effective on the date that is 10 days after the deadline.

Effective date.

“(B) REQUIREMENTS.—Notwithstanding paragraph (6), approval of a waiver application under subparagraph (A) for failure to meet the deadline under paragraph (3)(B) shall not be considered final agency action or be subject to judicial review or public notice and comment.

“(g) SAVINGS.—

“(1) NO PREEMPTION OF COMMON LAW OR STATUTORY CAUSES OF ACTION FOR CIVIL RELIEF OR CRIMINAL CONDUCT.—

“(A) IN GENERAL.—Nothing in this Act, nor any amendment made by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, nor any standard, rule, requirement, standard of performance, risk evaluation, or scientific assessment implemented pursuant to this Act, shall be

construed to preempt, displace, or supplant any State or Federal common law rights or any State or Federal statute creating a remedy for civil relief, including those for civil damage, or a penalty for a criminal conduct.

“(B) CLARIFICATION OF NO PREEMPTION.—Notwithstanding any other provision of this Act, nothing in this Act, nor any amendments made by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, shall preempt or preclude any cause of action for personal injury, wrongful death, property damage, or other injury based on negligence, strict liability, products liability, failure to warn, or any other legal theory of liability under any State law, maritime law, or Federal common law or statutory theory.

“(2) NO EFFECT ON PRIVATE REMEDIES.—

“(A) IN GENERAL.—Nothing in this Act, nor any amendments made by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, nor any rules, regulations, requirements, risk evaluations, scientific assessments, or orders issued pursuant to this Act shall be interpreted as, in either the plaintiff’s or defendant’s favor, dispositive in any civil action.

“(B) AUTHORITY OF COURTS.—This Act does not affect the authority of any court to make a determination in an adjudicatory proceeding under applicable State or Federal law with respect to the admission into evidence or any other use of this Act or rules, regulations, requirements, standards of performance, risk evaluations, scientific assessments, or orders issued pursuant to this Act.”.

#### SEC. 14. JUDICIAL REVIEW.

Section 19(a) of the Toxic Substances Control Act (15 U.S.C. 2618(a)) is amended—

Deadline.

(1) in paragraph (1), by adding at the end the following:

“(C)(i) Not later than 60 days after the publication of a designation under section 6(b)(1)(B)(ii), any person may commence a civil action to challenge the designation.

“(ii) The United States Court of Appeals for the District of Columbia Circuit shall have exclusive jurisdiction over a civil action filed under this subparagraph.”; and

(2) by striking paragraph (3).

#### SEC. 15. CITIZENS’ CIVIL ACTIONS.

Section 20(b) of the Toxic Substances Control Act (15 U.S.C. 2619(b)) is amended—

Time period.

(1) in paragraph (1)(B), by striking “or” at the end; and

(2) in paragraph (2), by striking the period at the end and inserting the following: “, except that no prior notification shall be required in the case of a civil action brought to compel a decision by the Administrator pursuant to section 18(f)(3)(B); or

“(3) in the case of a civil action brought to compel a decision by the Administrator pursuant to section 18(f)(3)(B), after the date that is 60 days after the deadline specified in section 18(f)(3)(B).”.

**SEC. 16. STUDIES.**

Section 25 of the Toxic Substances Control Act (15 U.S.C. 2624) is repealed.

Repeal.

**SEC. 17. ADMINISTRATION OF THE ACT.**

Section 26 of the Toxic Substances Control Act (15 U.S.C. 2625) is amended—

(1) in subsection (b)(1)—

(A) by striking “of a reasonable fee”;

(B) by striking “data under section 4 or 5 to defray the cost of administering this Act” and inserting “information under section 4 or a notice or other information to be reviewed by the Administrator under section 5, or who manufactures or processes a chemical substance that is the subject of a risk evaluation under section 6(b), of a fee that is sufficient and not more than reasonably necessary to defray the cost related to such chemical substance of administering sections 4, 5, and 6, and collecting, processing, reviewing, and providing access to and protecting from disclosure as appropriate under section 14 information on chemical substances under this title, including contractor costs incurred by the Administrator”;

(C) by striking “Such rules shall not provide for any fee in excess of \$2,500 or, in the case of a small business concern, any fee in excess of \$100.”; and

(D) by striking “submit the data and the cost to the Administrator of reviewing such data” and inserting “pay such fee and the cost to the Administrator of carrying out the activities described in this paragraph”;

(2) in subsection (b)—

(A) in paragraph (2), by striking “paragraph (1)” and inserting “paragraph (4)”;

(B) by adding at the end the following:

“(3) FUND.—

“(A) ESTABLISHMENT.—There is established in the Treasury of the United States a fund, to be known as the TSCA Service Fee Fund (in this paragraph referred to as the ‘Fund’), consisting of such amounts as are deposited in the Fund under this paragraph.

“(B) COLLECTION AND DEPOSIT OF FEES.—Subject to the conditions of subparagraph (C), the Administrator shall collect the fees described in this subsection and deposit those fees in the Fund.

“(C) USE OF FUNDS BY ADMINISTRATOR.—Fees authorized under this section shall be collected and available for obligation only to the extent and in the amount provided in advance in appropriations Acts, and shall be available without fiscal year limitation for use in defraying the costs of the activities described in paragraph (1).

“(D) ACCOUNTING AND AUDITING.—

“(i) ACCOUNTING.—The Administrator shall biennially prepare and submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that includes an accounting of the fees paid to the Administrator under this paragraph and amounts disbursed from the Fund for the period covered by the report,

Deadline.  
Reports.

as reflected by financial statements provided in accordance with sections 3515 and 3521 of title 31, United States Code.

“(ii) AUDITING.—

“(I) IN GENERAL.—For the purpose of section 3515(c) of title 31, United States Code, the Fund shall be considered a component of a covered executive agency.

Analysis.

“(II) COMPONENTS OF AUDIT.—The annual audit required in accordance with sections 3515 and 3521 of title 31, United States Code, of the financial statements of activities carried out using amounts from the Fund shall include an analysis of—

“(aa) the fees collected and amounts disbursed under this subsection;

“(bb) the reasonableness of the fees in place as of the date of the audit to meet current and projected costs of administering the provisions of this title for which the fees may be used; and

“(cc) the number of requests for a risk evaluation made by manufacturers under section 6(b)(4)(C)(ii).

Reports.

“(III) FEDERAL RESPONSIBILITY.—The Inspector General of the Environmental Protection Agency shall conduct the annual audit described in subclause (II) and submit to the Administrator a report that describes the findings and any recommendations of the Inspector General resulting from the audit.

“(4) AMOUNT AND ADJUSTMENT OF FEES; REFUNDS.—In setting fees under this section, the Administrator shall—

Consultation.

“(A) prescribe lower fees for small business concerns, after consultation with the Administrator of the Small Business Administration;

“(B) set the fees established under paragraph (1) at levels such that the fees will, in aggregate, provide a sustainable source of funds to annually defray—

“(i) the lower of—

“(I) 25 percent of the costs to the Administrator of carrying out sections 4, 5, and 6, and of collecting, processing, reviewing, and providing access to and protecting from disclosure as appropriate under section 14 information on chemical substances under this title, other than the costs to conduct and complete risk evaluations under section 6(b); or

“(II) \$25,000,000 (subject to adjustment pursuant to subparagraph (F)); and

“(ii) the costs of risk evaluations specified in subparagraph (D);

“(C) reflect an appropriate balance in the assessment of fees between manufacturers and processors, and allow the payment of fees by consortia of manufacturers or processors;

“(D) notwithstanding subparagraph (B)—

“(i) except as provided in clause (ii), for chemical substances for which the Administrator has granted a request from a manufacturer pursuant to section 6(b)(4)(C)(ii), establish the fee at a level sufficient to defray the full

costs to the Administrator of conducting the risk evaluation under section 6(b);

“(ii) for chemical substances for which the Administrator has granted a request from a manufacturer pursuant to section 6(b)(4)(C)(ii), and which are included in the 2014 update of the TSCA Work Plan for Chemical Assessments, establish the fee at a level sufficient to defray 50 percent of the costs to the Administrator of conducting the risk evaluation under section 6(b); and

“(iii) apply fees collected pursuant to clauses (i) and (ii) only to defray the costs described in those clauses;

“(E) prior to the establishment or amendment of any fees under paragraph (1), consult and meet with parties potentially subject to the fees or their representatives, subject to the condition that no obligation under the Federal Advisory Committee Act (5 U.S.C. App.) or subchapter II of chapter 5 of title 5, United States Code, is applicable with respect to such meetings;

“(F) beginning with the fiscal year that is 3 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, and every 3 years thereafter, after consultation with parties potentially subject to the fees and their representatives pursuant to subparagraph (E), increase or decrease the fees established under paragraph (1) as necessary to adjust for inflation and to ensure that funds deposited in the Fund are sufficient to defray—

“(i) approximately but not more than 25 percent of the costs to the Administrator of carrying out sections 4, 5, and 6, and of collecting, processing, reviewing, and providing access to and protecting from disclosure as appropriate under section 14 information on chemical substances under this title, other than the costs to conduct and complete risk evaluations requested under section 6(b)(4)(C)(ii); and

“(ii) the costs of risk evaluations specified in subparagraph (D); and

“(G) if a notice submitted under section 5 is not reviewed or such a notice is withdrawn, refund the fee or a portion of the fee if no substantial work was performed on the notice.

“(5) MINIMUM AMOUNT OF APPROPRIATIONS.—Fees may not be assessed for a fiscal year under this section unless the amount of appropriations for the Chemical Risk Review and Reduction program project of the Environmental Protection Agency for the fiscal year (excluding the amount of any fees appropriated for the fiscal year) are equal to or greater than the amount of appropriations for that program project for fiscal year 2014.

“(6) TERMINATION.—The authority provided by this subsection shall terminate at the conclusion of the fiscal year that is 10 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act unless otherwise reauthorized or modified by Congress.”; and

(3) by adding at the end the following:

“(h) SCIENTIFIC STANDARDS.—In carrying out sections 4, 5, and 6, to the extent that the Administrator makes a decision based on science, the Administrator shall use scientific information, technical procedures, measures, methods, protocols, methodologies, or models, employed in a manner consistent with the best available science, and shall consider as applicable—

Applicability.

Consultation.

Effective date.  
Deadline.  
Consultation.

Notice.

Applicability.

“(1) the extent to which the scientific information, technical procedures, measures, methods, protocols, methodologies, or models employed to generate the information are reasonable for and consistent with the intended use of the information;

“(2) the extent to which the information is relevant for the Administrator’s use in making a decision about a chemical substance or mixture;

“(3) the degree of clarity and completeness with which the data, assumptions, methods, quality assurance, and analyses employed to generate the information are documented;

“(4) the extent to which the variability and uncertainty in the information, or in the procedures, measures, methods, protocols, methodologies, or models, are evaluated and characterized; and

“(5) the extent of independent verification or peer review of the information or of the procedures, measures, methods, protocols, methodologies, or models.

“(i) WEIGHT OF SCIENTIFIC EVIDENCE.—The Administrator shall make decisions under sections 4, 5, and 6 based on the weight of the scientific evidence.

Public  
information.

“(j) AVAILABILITY OF INFORMATION.—Subject to section 14, the Administrator shall make available to the public—

“(1) all notices, determinations, findings, rules, consent agreements, and orders of the Administrator under this title;

“(2) any information required to be provided to the Administrator under section 4;

“(3) a nontechnical summary of each risk evaluation conducted under section 6(b);

List.

“(4) a list of the studies considered by the Administrator in carrying out each such risk evaluation, along with the results of those studies; and

“(5) each designation of a chemical substance under section 6(b), along with an identification of the information, analysis, and basis used to make the designations.

“(k) REASONABLY AVAILABLE INFORMATION.—In carrying out sections 4, 5, and 6, the Administrator shall take into consideration information relating to a chemical substance or mixture, including hazard and exposure information, under the conditions of use, that is reasonably available to the Administrator.

Deadlines.

“(l) POLICIES, PROCEDURES, AND GUIDANCE.—

“(1) DEVELOPMENT.—Not later than 2 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall develop any policies, procedures, and guidance the Administrator determines are necessary to carry out the amendments to this Act made by the Frank R. Lautenberg Chemical Safety for the 21st Century Act.

“(2) REVIEW.—Not later than 5 years after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, and not less frequently than once every 5 years thereafter, the Administrator shall—

“(A) review the adequacy of the policies, procedures, and guidance developed under paragraph (1), including with respect to animal, nonanimal, and epidemiological test methods and procedures for assessing and determining risk under this title; and

“(B) revise such policies, procedures, and guidance as the Administrator determines necessary to reflect new scientific developments or understandings.

“(3) TESTING OF CHEMICAL SUBSTANCES AND MIXTURES.—The policies, procedures, and guidance developed under paragraph (1) applicable to testing chemical substances and mixtures shall—

Applicability.

“(A) address how and when the exposure level or exposure potential of a chemical substance or mixture would factor into decisions to require new testing, subject to the condition that the Administrator shall not interpret the lack of exposure information as a lack of exposure or exposure potential; and

“(B) describe the manner in which the Administrator will determine that additional information is necessary to carry out this title, including information relating to potentially exposed or susceptible populations.

“(4) CHEMICAL SUBSTANCES WITH COMPLETED RISK ASSESSMENTS.—With respect to a chemical substance listed in the 2014 update to the TSCA Work Plan for Chemical Assessments for which the Administrator has published a completed risk assessment prior to the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator may publish proposed and final rules under section 6(a) that are consistent with the scope of the completed risk assessment for the chemical substance and consistent with other applicable requirements of section 6.

“(5) GUIDANCE.—Not later than 1 year after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall develop guidance to assist interested persons in developing and submitting draft risk evaluations which shall be considered by the Administrator. The guidance shall, at a minimum, address the quality of the information submitted and the process to be followed in developing draft risk evaluations for consideration by the Administrator.

Deadline.

“(m) REPORT TO CONGRESS.—

“(1) INITIAL REPORT.—Not later than 6 months after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall submit to the Committees on Energy and Commerce and Appropriations of the House of Representatives and the Committees on Environment and Public Works and Appropriations of the Senate a report containing an estimation of—

Estimate.

“(A) the capacity of the Environmental Protection Agency to conduct and publish risk evaluations under section 6(b)(4)(C)(i), and the resources necessary to conduct the minimum number of risk evaluations required under section 6(b)(2);

“(B) the capacity of the Environmental Protection Agency to conduct and publish risk evaluations under section 6(b)(4)(C)(ii), the likely demand for such risk evaluations, and the anticipated schedule for accommodating that demand;

“(C) the capacity of the Environmental Protection Agency to promulgate rules under section 6(a) as required

based on risk evaluations conducted and published under section 6(b); and

“(D) the actual and anticipated efforts of the Environmental Protection Agency to increase the Agency’s capacity to conduct and publish risk evaluations under section 6(b).

“(2) SUBSEQUENT REPORTS.—The Administrator shall update and resubmit the report described in paragraph (1) not less frequently than once every 5 years.

“(n) ANNUAL PLAN.—

“(1) IN GENERAL.—The Administrator shall inform the public regarding the schedule and the resources necessary for the completion of each risk evaluation as soon as practicable after initiating the risk evaluation.

“(2) PUBLICATION OF PLAN.—At the beginning of each calendar year, the Administrator shall publish an annual plan that—

“(A) identifies the chemical substances for which risk evaluations are expected to be initiated or completed that year and the resources necessary for their completion;

“(B) describes the status of each risk evaluation that has been initiated but not yet completed; and

“(C) if the schedule for completion of a risk evaluation has changed, includes an updated schedule for that risk evaluation.

“(o) CONSULTATION WITH SCIENCE ADVISORY COMMITTEE ON CHEMICALS.—

Deadline.

“(1) ESTABLISHMENT.—Not later than 1 year after the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, the Administrator shall establish an advisory committee, to be known as the Science Advisory Committee on Chemicals (referred to in this subsection as the ‘Committee’).

“(2) PURPOSE.—The purpose of the Committee shall be to provide independent advice and expert consultation, at the request of the Administrator, with respect to the scientific and technical aspects of issues relating to the implementation of this title.

“(3) COMPOSITION.—The Committee shall be composed of representatives of such science, government, labor, public health, public interest, animal protection, industry, and other groups as the Administrator determines to be advisable, including representatives that have specific scientific expertise in the relationship of chemical exposures to women, children, and other potentially exposed or susceptible subpopulations.

“(4) SCHEDULE.—The Administrator shall convene the Committee in accordance with such schedule as the Administrator determines to be appropriate, but not less frequently than once every 2 years.

“(p) PRIOR ACTIONS.—

“(1) RULES, ORDERS, AND EXEMPTIONS.—Nothing in the Frank R. Lautenberg Chemical Safety for the 21st Century Act eliminates, modifies, or withdraws any rule promulgated, order issued, or exemption established pursuant to this Act before the date of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act.

“(2) PRIOR-INITIATED EVALUATIONS.—Nothing in this Act prevents the Administrator from initiating a risk evaluation

regarding a chemical substance, or from continuing or completing such risk evaluation, prior to the effective date of the policies, procedures, and guidance required to be developed by the Administrator pursuant to the amendments made by the Frank R. Lautenberg Chemical Safety for the 21st Century Act.

“(3) ACTIONS COMPLETED PRIOR TO COMPLETION OF POLICIES, PROCEDURES, AND GUIDANCE.—Nothing in this Act requires the Administrator to revise or withdraw a completed risk evaluation, determination, or rule under this Act solely because the action was completed prior to the development of a policy, procedure, or guidance pursuant to the amendments made by the Frank R. Lautenberg Chemical Safety for the 21st Century Act.”.

#### SEC. 18. STATE PROGRAMS.

Section 28 of the Toxic Substances Control Act (15 U.S.C. 2627) is amended by striking subsections (c) and (d).

#### SEC. 19. CONFORMING AMENDMENTS.

(a) TABLE OF CONTENTS.—The table of contents in section 1 of the Toxic Substances Control Act is amended—

(1) by striking the item relating to section 6 and inserting the following:

“Sec. 6. Prioritization, risk evaluation, and regulation of chemical substances and mixtures.”;

(2) by striking the item relating to section 10 and inserting the following:

“Sec. 10. Research, development, collection, dissemination, and utilization of information.”;

(3) by striking the item relating to section 14 and inserting the following:

“Sec. 14. Confidential information.”; and

(4) by striking the item relating to section 25.

(b) SECTION 2.—Section 2(b)(1) of the Toxic Substances Control Act (15 U.S.C. 2601(b)(1)) is amended by striking “data” both places it appears and inserting “information”.

(c) SECTION 3.—Section 3 of the Toxic Substances Control Act (15 U.S.C. 2602) is amended—

(1) in paragraph (8) (as redesignated by section 3 of this Act), by striking “data” and inserting “information”; and

(2) in paragraph (15) (as redesignated by section 3 of this Act)—

(A) by striking “standards” and inserting “protocols and methodologies”;

(B) by striking “test data” both places it appears and inserting “information”; and

(C) by striking “data” each place it appears and inserting “information”.

(d) SECTION 4.—Section 4 of the Toxic Substances Control Act (15 U.S.C. 2603) is amended—

(1) in subsection (b)—

(A) in paragraph (1)—

- (i) in the paragraph heading, by adding “, ORDER, OR CONSENT AGREEMENT” at the end; and
- (ii) by striking “rule” each place it appears and inserting “rule, order, or consent agreement”;
- (B) in paragraph (2)(B), by striking “rules” and inserting “rules, orders, and consent agreements”;
- (C) in paragraph (3)(A), by striking “rule” and inserting “rule or order”; and
- (D) in paragraph (4)—
  - (i) by striking “rule under subsection (a)” each place it appears and inserting “rule, order, or consent agreement under subsection (a)”;
  - (ii) by striking “repeals the rule” each place it appears and inserting “repeals the rule or order or modifies the consent agreement to terminate the requirement”; and
  - (iii) by striking “repeals the application of the rule” and inserting “repeals or modifies the application of the rule, order, or consent agreement”;
- (2) in subsection (c)—
  - (A) in paragraph (1), by striking “rule” and inserting “rule or order”;
  - (B) in paragraph (2)—
    - (i) in subparagraph (A), by striking “a rule under subsection (a) or for which data is being developed pursuant to such a rule” and inserting “a rule, order, or consent agreement under subsection (a) or for which information is being developed pursuant to such a rule, order, or consent agreement”;
    - (ii) in subparagraph (B), by striking “such rule or which is being developed pursuant to such rule” and inserting “such rule, order, or consent agreement or which is being developed pursuant to such rule, order, or consent agreement”; and
    - (iii) in the matter following subparagraph (B), by striking “the rule” and inserting “the rule or order”;
  - (C) in paragraph (3)(B)(i), by striking “rule promulgated” and inserting “rule, order, or consent agreement”; and
  - (D) in paragraph (4)—
    - (i) by striking “rule promulgated” each place it appears and inserting “rule, order, or consent agreement”;
    - (ii) by striking “such rule” each place it appears and inserting “such rule, order, or consent agreement”; and
    - (iii) in subparagraph (B), by striking “the rule” and inserting “the rule or order”;
- (3) in subsection (d), by striking “rule” and inserting “rule, order, or consent agreement”; and
- (4) in subsection (g), by striking “rule” and inserting “rule, order, or consent agreement”.
- (e) SECTION 5.—Section 5 of the Toxic Substances Control Act (15 U.S.C. 2604) is amended—
  - (1) in subsection (b)—
    - (A) in paragraph (1)(A)—

- (i) by striking “rule promulgated” and inserting “rule, order, or consent agreement”; and
  - (ii) by striking “such rule” and inserting “such rule, order, or consent agreement”;
  - (B) in paragraph (1)(B), by striking “rule promulgated” and inserting “rule or order”; and
  - (C) in paragraph (2)(A)(ii), by striking “rule promulgated” and inserting “rule, order, or consent agreement”; and
  - (2) in subsection (d)(2)(C), by striking “rule” and inserting “rule, order, or consent agreement”.
- (f) SECTION 7.—Section 7(a) of the Toxic Substances Control Act (15 U.S.C. 2606(a)) is amended—
- (1) in paragraph (1), in the matter following subparagraph (C), by striking “a rule under section 4, 5, 6, or title IV or an order under section 5 or title IV” and inserting “a determination under section 5 or 6, a rule under section 4, 5, or 6 or title IV, an order under section 4, 5, or 6 or title IV, or a consent agreement under section 4”; and
  - (2) in paragraph (2), by striking “subsection 6(d)(2)(A)(i)” and inserting “section 6(d)(3)(A)(i)”.
- (g) SECTION 8.—Section 8(a) of the Toxic Substances Control Act (15 U.S.C. 2607(a)) is amended—
- (1) in paragraph (2)(E), by striking “data” and inserting “information”; and
  - (2) in paragraph (3)(A)(ii)(I), by striking “or an order in effect under section 5(e)” and inserting “, an order in effect under section 4 or 5(e), or a consent agreement under section 4”.
- (h) SECTION 9.—Section 9 of the Toxic Substances Control Act (15 U.S.C. 2608) is amended—
- (1) in subsection (a), by striking “section 6” each place it appears and inserting “section 6(a)”; and
  - (2) in subsection (d), by striking “Health, Education, and Welfare” and inserting “Health and Human Services”.
- (i) SECTION 10.—Section 10 of the Toxic Substances Control Act (15 U.S.C. 2609) is amended—
- (1) in the section heading, by striking “**DATA**” and inserting “**INFORMATION**”;
  - (2) by striking “Health, Education, and Welfare” each place it appears and inserting “Health and Human Services”;
  - (3) in subsection (b)—
    - (A) in the subsection heading, by striking “**DATA**” and inserting “**INFORMATION**”;
    - (B) by striking “data” and inserting “information” in paragraph (1);
    - (C) by striking “data” and inserting “information” in paragraph (2)(A); and
    - (D) by striking “a data” and inserting “an information” in paragraph (2)(B); and
  - (4) in subsection (g), by striking “data” and inserting “information”.
- (j) SECTION 11.—Section 11(b)(2) of the Toxic Substances Control Act (15 U.S.C. 2610(b)(2)) is amended—
- (1) by striking “data” each place it appears and inserting “information”; and

(2) in subparagraph (E), by striking “rule promulgated” and inserting “rule promulgated, order issued, or consent agreement entered into”.

(k) SECTION 12.—Section 12(b)(1) of the Toxic Substances Control Act (15 U.S.C. 2611(b)(1)) is amended by striking “data” both places it appears and inserting “information”.

(l) SECTION 15.—Section 15(1) of the Toxic Substances Control Act (15 U.S.C. 2614(1)) is amended by striking “(A) any rule” and all that follows through “or (D)” and inserting “any requirement of this title or any rule promulgated, order issued, or consent agreement entered into under this title, or”.

(m) SECTION 19.—Section 19 of the Toxic Substances Control Act (15 U.S.C. 2618) is amended—

(1) in subsection (a)—

(A) in paragraph (1)(A)—

(i) by striking “Not later than 60 days after the date of the promulgation of a rule under section 4(a), 5(a)(2), 5(b)(4), 6(a), 6(e), or 8, or under title II or IV” and inserting “Except as otherwise provided in this title, not later than 60 days after the date on which a rule is promulgated under this title, title II, or title IV, or the date on which an order is issued under section 4, 5(e), 5(f), or 6(i)(1),”;

(ii) by striking “such rule” and inserting “such rule or order”; and

(iii) by striking “such a rule” and inserting “such a rule or order”;

(B) in paragraph (1)(B)—

(i) by striking “Courts” and inserting “Except as otherwise provided in this title, courts”; and

(ii) by striking “subparagraph (A) or (B) of section 6(b)(1)” and inserting “this title, other than an order under section 4, 5(e), 5(f), or 6(i)(1),”;

(C) in paragraph (2)—

(i) by striking “rulemaking record” and inserting “record”; and

(ii) by striking “based the rule” and inserting “based the rule or order”;

(2) in subsection (b)—

(A) by striking “review a rule” and inserting “review a rule, or an order under section 4, 5(e), 5(f), or 6(i)(1),”;

(B) by striking “such rule” and inserting “such rule or order”;

(C) by striking “the rule” and inserting “the rule or order”;

(D) by striking “new rule” each place it appears and inserting “new rule or order”; and

(E) by striking “modified rule” and inserting “modified rule or order”; and

(3) in subsection (c)—

(A) in paragraph (1)—

(i) in subparagraph (A)—

(I) by striking “a rule” and inserting “a rule or order”; and

(II) by striking “such rule” and inserting “such rule or order”;

(ii) in subparagraph (B)—

(I) in the matter preceding clause (i), by striking “a rule” and inserting “a rule or order”;

(II) by amending clause (i) to read as follows:  
“(i) in the case of review of—

“(I) a rule under section 4(a), 5(b)(4), 6(a) (including review of the associated determination under section 6(b)(4)(A)), or 6(e), the standard for review prescribed by paragraph (2)(E) of such section 706 shall not apply and the court shall hold unlawful and set aside such rule if the court finds that the rule is not supported by substantial evidence in the rulemaking record taken as a whole; and

“(II) an order under section 4, 5(e), 5(f), or 6(i)(1), the standard for review prescribed by paragraph (2)(E) of such section 706 shall not apply and the court shall hold unlawful and set aside such order if the court finds that the order is not supported by substantial evidence in the record taken as a whole; and”;

(III) by striking clauses (ii) and (iii) and the matter after clause (iii) and inserting the following:

“(ii) the court may not review the contents and adequacy of any statement of basis and purpose required by section 553(c) of title 5, United States Code, to be incorporated in the rule or order, except as part of the record, taken as a whole.”; and

(iii) by striking subparagraph (C); and

(B) in paragraph (2), by striking “any rule” and inserting “any rule or order”.

(n) SECTION 20.—Section 20(a)(1) of the Toxic Substances Control Act (15 U.S.C. 2619(a)(1)) is amended by striking “order issued under section 5” and inserting “order issued under section 4 or 5”.

(o) SECTION 21.—Section 21 of the Toxic Substances Control Act (15 U.S.C. 2620) is amended—

(1) in subsection (a), by striking “order under section 5(e) or (6)(b)(2)” and inserting “order under section 4 or 5(e) or (f)”; and

(2) in subsection (b)—

(A) in paragraph (1), by striking “order under section 5(e), 6(b)(1)(A), or 6(b)(1)(B)” and inserting “order under section 4 or 5(e) or (f)”; and

(B) in paragraph (4)(B)—

(i) in the matter preceding clause (i), by striking “order under section 5(e) or 6(b)(2)” and inserting “order under section 4 or 5(e) or (f)”; and

(ii) in clause (i), by striking “order under section 5(e)” and inserting “order under section 4 or 5(e)”; and

(iii) in clause (ii), by striking “section 6 or 8 or an order under section 6(b)(2), there is a reasonable basis to conclude that the issuance of such a rule or order is necessary to protect health or the environment against an unreasonable risk of injury to health or the environment” and inserting “section 6(a) or 8 or an order under section 5(f), the chemical substance or mixture to be subject to such rule or order presents an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk

factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation, under the conditions of use”.

(p) SECTION 24.—Section 24(b)(2)(B) of the Toxic Substances Control Act (15 U.S.C. 2623(b)(2)(B)) is amended—

- (1) by inserting “and” at the end of clause (i);
- (2) by striking clause (ii); and
- (3) by redesignating clause (iii) as clause (ii).

(q) SECTION 26.—Section 26 of the Toxic Substances Control Act (15 U.S.C. 2625) is amended—

- (1) in subsection (e), by striking “Health, Education, and Welfare” each place it appears and inserting “Health and Human Services”; and
- (2) in subsection (g)(1), by striking “data” and inserting “information”.

(r) SECTION 27.—Section 27(a) of the Toxic Substances Control Act (15 U.S.C. 2626(a)) is amended—

- (1) by striking “Health, Education, and Welfare” and inserting “Health and Human Services”;
- (2) by striking “test data” both places it appears and inserting “information”;
- (3) by striking “rules promulgated” and inserting “rules, orders, or consent agreements”; and
- (4) by striking “standards” and inserting “protocols and methodologies”.

(s) SECTION 30.—Section 30(2) of the Toxic Substances Control Act (15 U.S.C. 2629(2)) is amended by striking “rule” and inserting “rule, order, or consent agreement”.

15 USC 2601  
note.

**SEC. 20. NO RETROACTIVITY.**

Nothing in sections 1 through 19, or the amendments made by sections 1 through 19, shall be interpreted to apply retroactively to any State, Federal, or maritime legal action filed before the date of enactment of this Act.

42 USC 280g–17  
note.

**SEC. 21. TREVOR’S LAW.**

(a) PURPOSES.—The purposes of this section are—

- (1) to provide the appropriate Federal agencies with the authority to help conduct investigations into potential cancer clusters;
- (2) to ensure that Federal agencies have the authority to undertake actions to help address cancer clusters and factors that may contribute to the creation of potential cancer clusters; and
- (3) to enable Federal agencies to coordinate with other Federal, State, and local agencies, institutes of higher education, and the public in investigating and addressing cancer clusters.

(b) DESIGNATION AND INVESTIGATION OF POTENTIAL CANCER CLUSTERS.—Part P of title III of the Public Health Service Act (42 U.S.C. 280g et seq.) is amended by adding at the end the following:

42 USC 280g–17.

**“SEC. 399V–6. DESIGNATION AND INVESTIGATION OF POTENTIAL CANCER CLUSTERS.**

“(a) DEFINITIONS.—In this section:

- “(1) CANCER CLUSTER.—The term ‘cancer cluster’ means the incidence of a particular cancer within a population group,

a geographical area, and a period of time that is greater than expected for such group, area, and period.

“(2) PARTICULAR CANCER.—The term ‘particular cancer’ means one specific type of cancer or a type of cancers scientifically proven to have the same cause.

“(3) POPULATION GROUP.—The term ‘population group’ means a group, for purposes of calculating cancer rates, defined by factors such as race, ethnicity, age, or gender.

“(b) CRITERIA FOR DESIGNATION OF POTENTIAL CANCER CLUSTERS.—

“(1) DEVELOPMENT OF CRITERIA.—The Secretary shall develop criteria for the designation of potential cancer clusters.

“(2) REQUIREMENTS.—The criteria developed under paragraph (1) shall consider, as appropriate—

“(A) a standard for cancer cluster identification and reporting protocols used to determine when cancer incidence is greater than would be typically observed;

“(B) scientific screening standards that ensure that a cluster of a particular cancer involves the same type of cancer, or types of cancers;

“(C) the population in which the cluster of a particular cancer occurs by factors such as race, ethnicity, age, and gender, for purposes of calculating cancer rates;

“(D) the boundaries of a geographic area in which a cluster of a particular cancer occurs so as not to create or obscure a potential cluster by selection of a specific area; and

“(E) the time period over which the number of cases of a particular cancer, or the calculation of an expected number of cases, occurs.

“(c) GUIDELINES FOR INVESTIGATION OF POTENTIAL CANCER CLUSTERS.—The Secretary, in consultation with the Council of State and Territorial Epidemiologists and representatives of State and local health departments, shall develop, publish, and periodically update guidelines for investigating potential cancer clusters. The guidelines shall—

“(1) recommend that investigations of cancer clusters—

“(A) use the criteria developed under subsection (b);

“(B) use the best available science; and

“(C) rely on a weight of the scientific evidence;

“(2) provide standardized methods of reviewing and categorizing data, including from health surveillance systems and reports of potential cancer clusters; and

“(3) provide guidance for using appropriate epidemiological and other approaches for investigations.

“(d) INVESTIGATION OF CANCER CLUSTERS.—

“(1) SECRETARY DISCRETION.—The Secretary—

“(A) in consultation with representatives of the relevant State and local health departments, shall consider whether it is appropriate to conduct an investigation of a potential cancer cluster; and

“(B) in conducting investigations shall have the discretion to prioritize certain potential cancer clusters, based on the availability of resources.

“(2) COORDINATION.—In investigating potential cancer clusters, the Secretary shall coordinate with agencies within the

Consultation.  
Publication.

Recommendation.

Consultation.

Department of Health and Human Services and other Federal agencies, such as the Environmental Protection Agency.

“(3) BIOMONITORING.—In investigating potential cancer clusters, the Secretary shall rely on all appropriate biomonitoring information collected under other Federal programs, such as the National Health and Nutrition Examination Survey. The Secretary may provide technical assistance for relevant biomonitoring studies of other Federal agencies.

“(e) DUTIES.—The Secretary shall—

“(1) ensure that appropriate staff of agencies within the Department of Health and Human Services are prepared to provide timely assistance, to the extent practicable, upon receiving a request to investigate a potential cancer cluster from a State or local health authority;

“(2) maintain staff expertise in epidemiology, toxicology, data analysis, environmental health and cancer surveillance, exposure assessment, pediatric health, pollution control, community outreach, health education, laboratory sampling and analysis, spatial mapping, and informatics;

“(3) consult with community members as investigations into potential cancer clusters are conducted, as the Secretary determines appropriate;

“(4) collect, store, and disseminate reports on investigations of potential cancer clusters, the possible causes of such clusters, and the actions taken to address such clusters; and

“(5) provide technical assistance for investigating cancer clusters to State and local health departments through existing programs, such as the Epi-Aids program of the Centers for Disease Control and Prevention and the Assessments of Chemical Exposures Program of the Agency for Toxic Substances and Disease Registry.”.

Rural Healthcare  
Connectivity Act  
of 2016.

## TITLE II—RURAL HEALTHCARE CONNECTIVITY

47 USC 609 note. **SEC. 201. SHORT TITLE.**

This title may be cited as the “Rural Healthcare Connectivity Act of 2016”.

**SEC. 202. TELECOMMUNICATIONS SERVICES FOR SKILLED NURSING FACILITIES.**

(a) IN GENERAL.—Section 254(h)(7)(B) of the Communications Act of 1934 (47 U.S.C. 254(h)(7)(B)) is amended—

- (1) in clause (vi), by striking “and” at the end;
- (2) by redesignating clause (vii) as clause (viii);
- (3) by inserting after clause (vi) the following:

“(vii) skilled nursing facilities (as defined in section 1819(a) of the Social Security Act (42 U.S.C. 1395i–3(a))); and”;

- (4) in clause (viii), as redesignated, by striking “clauses (i) through (vi)” and inserting “clauses (i) through (vii)”.

47 USC 254 note.

(b) SAVINGS CLAUSE.—Nothing in subsection (a) shall be construed to affect the aggregate annual cap on Federal universal service support for health care providers under section 54.675 of title 47, Code of Federal Regulations, or any successor regulation.

(c) EFFECTIVE DATE.—The amendments made by subsection (a) shall apply beginning on the date that is 180 days after the date of the enactment of this Act. 47 USC 254 note.

Approved June 22, 2016.

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LEGISLATIVE HISTORY—H.R. 2576:

HOUSE REPORTS: No. 114–176 (Comm. on Energy and Commerce).

CONGRESSIONAL RECORD:

Vol. 161 (2015): June 23, considered and passed House.  
Dec. 17, considered and passed Senate, amended.

Vol. 162 (2016): May 24, House concurred in Senate amendment with an amendment.

June 7, Senate concurred in House amendment.

DAILY COMPILATION OF PRESIDENTIAL DOCUMENTS (2016):

June 22, Presidential remarks.



**APPENDIX B**  
**COMPARATIVE ANALYSIS OF POTENTIAL HUMAN HEALTH**  
**IMPACTS**

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## ACRONYMS AND ABBREVIATIONS

2011 Mercury Storage EIS	<i>Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement</i>
2013 Mercury Storage SEIS	<i>Final Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement</i>
ACGIH	American Conference of Governmental Industrial Hygienists
AEGL	Acute Exposure Guideline Level
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
FL	frequency level
FMCSA	Federal Motor Carrier Safety Administration
HWAD	Hawthorne Army Depot
INL	Idaho National Laboratory
mg/kg	milligram per kilogram
MT	metric ton
NEPA	<i>National Environmental Policy Act</i>
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PAC	Protective Action Criteria
PGA	peak ground acceleration
RCRA	<i>Resource Conservation and Recovery Act</i>
SEIS	supplemental environmental impact statement
SL	severity level
SRS	Savannah River Site
TLV	threshold limit values
TWA	time-weighted average
WCS	Waste Control Specialists LLC
WIPP	Waste Isolation Pilot Plant
Perma-Fix DSSI	Perma-Fix Diversified Scientific Services, Inc
Y-12	Y-12 National Security Complex

## Appendix B: Comparative Analysis of Potential Human Health Impacts

### B.1 Introduction

As described in Chapter 1 of this *Mercury Storage Supplemental Environmental Impact Statement* (Mercury Storage SEIS-II), DOE prepared the *Long-Term Management and Storage of Elemental Mercury Final Environmental Impact Statement* (2011 Mercury Storage EIS) (DOE 2011) and the *Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement* (2013 Mercury Storage SEIS) (DOE 2013) to evaluate the following action alternatives:

- New construction at the Grand Junction Disposal Site in Colorado;
- New construction at the Hanford Site in Washington;
- Existing storage buildings at the Hawthorne Army Depot (HWAD) in the Central Magazine Area in Nevada;
- New construction at the Idaho National Laboratory's (INL's) Idaho Nuclear Technology and Engineering Center;
- Existing storage buildings at INL's Radioactive Waste Management Complex;
- Existing building at the General Services Administration's Bannister Federal Complex's Kansas City Plant in Missouri;
- New construction at the Savannah River Site (SRS) in South Carolina;
- New construction at the Waste Control Specialists LLC (WCS) site near Andrews, Texas (including interim storage in the existing Container Storage Building); and
- Three locations for new construction at the Waste Isolation Pilot Plant (WIPP)<sup>1</sup> in New Mexico.

As discussed in Chapter 2, DOE prepared this SEIS-II to evaluate the following eight alternative sites as potential locations for the long-term management and storage of elemental mercury:

- HWAD;
- WCS site near Andrews, Texas;
- Bethlehem Apparatus Company in Bethlehem, Pennsylvania;
- Perma-Fix Diversified Scientific Services, Inc. (Perma-Fix DSSI) in Kingston, Tennessee;
- Veolia in Gum Springs, Arkansas; and
- Clean Harbors (facilities in Pecatonica, Illinois; Greenbrier, Tennessee; and Tooele, Utah).

Two of these sites, HWAD and WCS, were previously analyzed in the 2011 Mercury Storage EIS. The proposed alternative at HWAD has not changed since 2011. WCS was previously analyzed as a site with new construction and with interim storage in the existing Container Storage Building. This SEIS-II analyzes only storage in the existing Container Storage Building at WCS. For further description of these alternatives, see Chapter 2, Sections 2.2 and 2.3, of this SEIS-II.

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<sup>1</sup> The 2103 Mercury Storage EIS considered three WIPP alternatives. All other alternatives were considered in the 2011 Mercury Storage EIS.

The general framework used in 2011 and 2013 for assessing the risks to human health from potential exposure to mercury from implementing the Proposed Action described in Chapter 2 has not changed and is described in Appendix D of the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS. Information and data supporting the risk assessment such as definition of human receptors, mercury toxicity and protection standards, and onsite and offsite accident and release scenarios do not depend on the location or specific characteristics of each alternative site. This information from Appendix D of the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS is incorporated herein by reference and in many cases restated here for the convenience of the reader and augmented where appropriate with data specific to the alternative sites evaluated.<sup>2</sup> The purpose of this appendix is twofold:

- Describe changes from the 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS human health analyses (e.g., those that arise from site-specific features or require updating based on new data), and
- Describe how the 2011 and 2013 analyses are adopted and applied to the alternative sites evaluated in this SEIS-II.

The majority of this appendix is a summary of information provided in Appendix D of the 2011 Mercury Storage EIS to aid in understanding the background associated with the human health analyses. The primary changes from the previous NEPA analyses that are reflected in this SEIS-II include the following:

- Six new alternative sites that have not been previously evaluated in a DOE EIS or SEIS.
- Reduction in the quantity of mercury to be shipped and stored (see Section B.2).
- Updates to the definition of severity levels (SL-I and SL-II) for mercury inhalation risks as described in the 2013 Mercury Storage SEIS.

## **B.2 Quantity of Mercury to be Shipped and Stored**

As discussed in Section 2.1.2 of this SEIS-II, the analysis in the 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS assumed a total accumulation during a 40-year period of 10,000 metric tons (MT) (11,000 tons) of elemental mercury. The current projected accumulation of mercury during a 40-year period of analysis is 7,000 MT (see Chapter 2, Table 2-2). This represents a 30-percent reduction in the analyzed quantity of mercury to be shipped and stored.

## **B.3 Risk Assessment Scope and Framework**

The framework and the methods for the human health risk assessment are described in Appendix D of the 2011 Mercury Storage EIS. In the 2013 Mercury Storage SEIS, the human health risk

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<sup>2</sup> The 2011 Mercury Storage EIS and 2013 SEIS included an assumption of 99.5% elemental mercury by volume, which was an assumption in DOE's 2009 Interim Guidance. This SEIS-II does not include this assumption; however, the analysis does assume that only RCRA hazardous waste with codes D009 and/or U151 would be in the containers, ensuring that no other hazardous materials need to be considered. Additionally, RCRA regulations require that the containers not include contaminants that would be corrosive or other incompatible materials (e.g., acid solutions, chloride salt solutions, water) that would compromise the integrity of the containers during storage, per 40 CFR 264/265.172.

assessment was updated based on a revision of the Protection Action Criteria for mercury (DOE 2012). This changed the definition of the severity levels (i.e., magnitude of impacts) for assessing acute-inhalation exposures to the public under certain accident scenarios (DOE 2013, Appendices B, D, and E). However, the methodology and approach to conducting the human health risk assessment remained otherwise unchanged from that described in the 2011 Mercury Storage EIS.

The framework for the risk assessment is based on estimated frequency of occurrence of an accident and the consequence (i.e., severity) of the accident. The risk is defined as a combination of frequency of occurrence and severity of consequences as illustrated in the risk ranking matrix reproduced in Figure B-1. As defined in the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS, the human health analysis assesses risk of exposure to three human receptors:

- Involved workers – those inside the storage building or working on unloading mercury trucks,
- Noninvolved workers – those nearby but still on site, and
- Members of the public/public receptors.

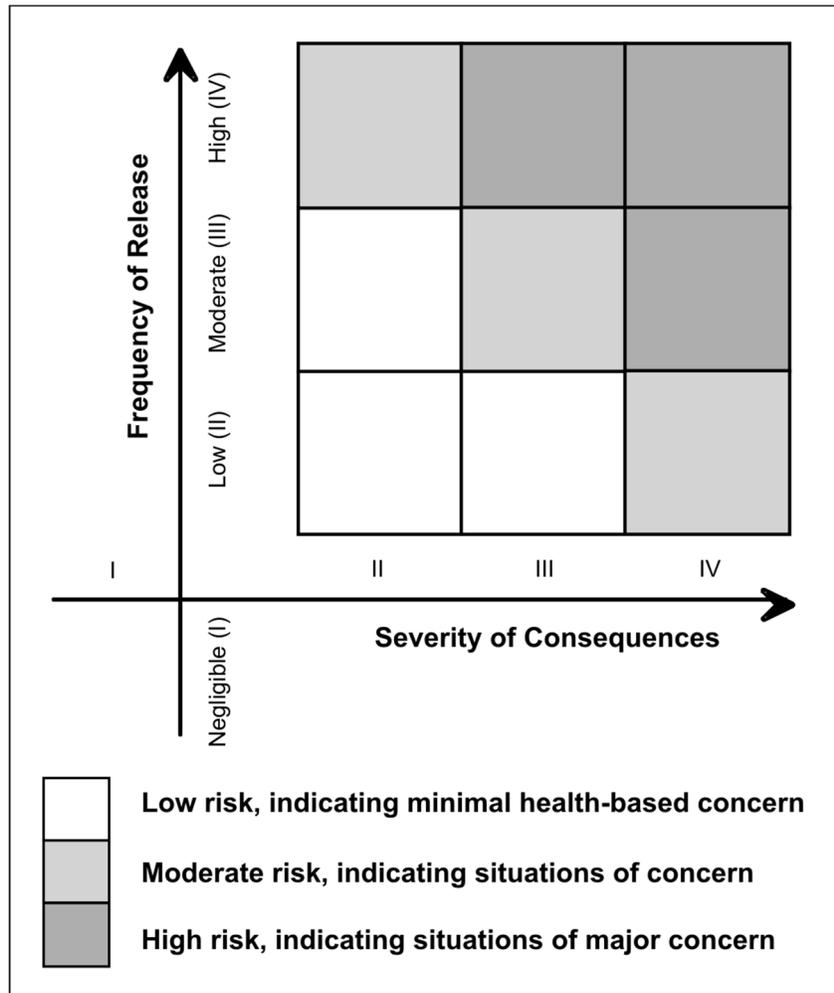


Figure B-1 Risk (frequency and consequence) Ranking Matrix

The frequency of occurrence and severity of consequences are described and discussed in Appendix D, Section D.1, of the 2011 Mercury Storage EIS and updated in the 2013 Mercury Storage SEIS.

The following sections of this appendix discuss the components of the human health risk assessment described in the sections of Appendix D in the 2011 Mercury Storage EIS with a focus on data and information that is specific to each alternative site and application of that information to the risk assessment for the alternative sites evaluated in this SEIS-II. Section B.4 summarizes the descriptions and estimated frequencies of the accident scenarios considered in the previous EISs. Section B.5 summarizes information about the toxicity of mercury exposure to humans. Section B.6 summarizes the exposure assessment and the human health consequences and risks for the alternative sites evaluated in this SEIS-II.

#### **B.4 Onsite and Offsite Release Events and Their Frequencies**

Appendix D, Section D.2, of the 2011 Mercury Storage EIS discusses potential mercury releases and their estimated frequency during normal operations, onsite operational accidents, onsite accidents caused by external events, intentional destructive acts, and offsite transportation accidents. The frequency levels (FL) for accidental events are assigned to one of four bands based on the estimated probability of the events:

- FL-IV (high) – more than or equal to once in 100 years: ( $f \geq 10^{-2}$  per year)
- FL-III (moderate) – less than once in 100 years to once in 10,000 years: ( $10^{-2}$  per year  $> f \geq 10^{-4}$  per year)
- FL-II (low) – less than once in 10,000 years to once in 1 million years: ( $10^{-4}$  per year  $> f \geq 10^{-6}$  per year)
- FL-I (negligible) – less than once in 1 million years: ( $f < 10^{-6}$  per year)

A summary of those scenarios that were carried forward for further analysis in the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS are listed in Table B-1. The scenarios not carried forward for further analysis in the previous analyses include those with frequency levels determined to be negligible or whose effects were bounded by another scenario. This SEIS-II evaluates the same scenarios analyzed in 2011 and 2013 except as noted below.

As discussed in Chapter 2, Section 2.1.3, of this SEIS-II, rail was determined to be an unlikely transportation mode. Rail is not reevaluated in this SEIS-II and is not included in the scenarios listed in Table B-1 for offsite transportation. The previous risk assessments analyzed truck transportation scenarios assuming full-truck shipments and half-full truck shipments (i.e., effectively doubling the required transportation miles). This SEIS-II analyzes only a full-truck shipment scenario. Based on existing accumulated mercury (e.g., Y-12, commercial storage, and ore processors), approximately 2,000 MT (almost 30 percent of the expected 7,000 MT of mercury) would be available for immediate shipment, and it would be unreasonable to assume that mercury would be shipped with less than full truck shipments. The majority of the remaining mercury would be accumulated by Nevada ore processors at a rate of about 120 MT/year (see Chapter 2, Table 2-2 of this SEIS-II), or from nine to ten full-truck shipments per year. Although it is reasonable to expect that some truck shipments would be less than full capacity, it is unrealistic to assume with a mercury accumulation rate of nine to ten full-truck shipments per year that a large

number of truck shipments would be made at half capacity (see Appendix D, Sections D.2.3–D.2.7, in the 2011 Mercury Storage EIS for a description of each release scenario).

**Table B-1 Summary of Onsite and Offsite Accident Scenarios and Their Estimated Frequency**

Hazard	Activity	Postulated Scenario	Frequency of Release <sup>a</sup>	Comments <sup>a</sup>
Toxic	Onsite storage	Slow leak/release of liquid mercury	High (FL-IV)	Requires undetected failure of container.
Kinetic	Onsite material handling	Single flask dropped during handling, resulting in breach	Moderate (FL-III)	Consolidation of partially filled pallets could lead to a relatively large number of handling events per year. Could only occur inside building.
Kinetic	Onsite material handling	Single pallet dropped during transfer to storage racks, resulting in breach	Moderate (FL-III)	Assumes pallet dropped from 12 feet and all 49 flasks breached. Conservatively assumed that it could occur outside the building as well as inside.
Kinetic	Onsite material handling	Triple-pallet collapse	Moderate (FL-III)	Requires failure of storage rack. Conservatively assumes triple stacking is utilized in the building. Could only occur inside building.
Kinetic	Onsite material handling	Single 1-MT container drop	Moderate (FL-III)	Could occur inside or outside building. Assumes container dropped from a height of less than 5 feet.
Earthquake	All activities	Earthquake causes building damage and pallets and/or flasks to fall and spill	Moderate <sup>b</sup> (FL-III)	Requires an earthquake and failure of flasks or 1-MT containers. Two alternatives considered: building remains recognizably intact or building collapses completely.
Surface transportation	Offsite transport	Truck crash during transportation of mercury; fire breaks out	Moderate (FL-III)	Impact breaches flasks or 1-MT containers; spill and fire occur after crash.
Surface transportation	Offsite transport	Truck crashes during transportation of mercury; fire breaks out in wet weather	Low (FL-II)	Impact breaches flasks or 1-MT containers; spill and fire occur after crash.
Surface transportation	Offsite transport	Truck crashes and mercury spills (no fire)	Moderate (FL-III)	Impact breaches flasks or 1-MT containers; subsequently evaporates.
Surface transportation	Offsite transport	Truck crashes with mechanically induced fatality	Moderate (FL-III)	Impact causes fatality.
Intentional destructive act	Transport	Full gasoline tanker driven into truck; fire breaks out.	Not Assessed	Gasoline fire causes release of mercury.

FL=frequency level; MT=metric-ton.

- a For justification of frequency assignments and comments, see Appendix D, Sections D.2.4 and D.2.5, of the 2011 Mercury Storage EIS.
  - b No effort is made to split the moderate frequency between earthquake with building collapse and earthquake without building collapse (i.e., conservatively, the frequency of occurrence of both scenarios is analyzed as moderate).
- Source: DOE 2011, Table D-18

The earthquake release scenario is considered a bounding external event (i.e., worst-case scenario) for several potential external events such as floods and tornadoes. Earthquake-induced ground motion is expressed in units of percent g (force of acceleration relative to that of Earth’s gravity). The 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS used the latest probabilistic peak ground acceleration (PGA) data from the U.S. Geological Survey to assess seismic hazard among the various mercury storage candidate sites. The PGA values cited in the previous analyses are based on a 2-percent frequency of exceedance in 50 years. This equates to an annual frequency (probability) of occurrence of about 1 in 2,500 years, or  $4 \times 10^{-4}$  per year (FL-III). Because the PGA values are location specific, the most recent PGA values were used for the alternative sites evaluated in this SEIS-II (see the respective Geologic Hazard sections in Chapter 3 and Table B-2 below). The PGA values for alternative sites evaluated in this SEIS-II (ranging from 0.05 to 0.62 g) are similar to the 2011 Mercury Storage. HWAD has the highest PGA value among the alternatives evaluated in these NEPA documents.

**Table B-2 Peak Ground Acceleration at Alternative Mercury Storage Sites**

Mercury Storage Site Alternative	Peak Ground Acceleration (g) <sup>a,b</sup>
Hawthorne Army Depot, Nevada	0.62
Waste Control Specialists LLC, Texas	0.08
Bethlehem Apparatus Company, Pennsylvania	0.10
Perma-Fix DSSI, Tennessee	0.33
Veolia Gum Springs, Arkansas	0.10
Clean Harbors Grassy Mountain, Utah	0.16
Clean Harbors Greenbrier, Tennessee	0.14
Clean Harbors Pecatonica, Illinois	0.05

- a This is the value that has a 1 in 2,500 ( $4 \times 10^{-4}$  per year) annual frequency of exceedance, expressed in units of percent (g), or the force of acceleration relative to that of Earth’s gravity.
  - b The peak ground acceleration values for the sites analyzed in the 2011 Mercury Storage EIS ranged from 0.12 to 0.57 g (DOE 2011, Table D-5).
- Source: USGS 2021

The probabilities associated with a potential offsite transportation accident are based on the estimated route miles from the current mercury location to the long-term storage site. This information is site specific and therefore is different than the values used in 2011. As identified in Section 2.4 of this SEIS-II, the transportation analysis in the Draft SEIS-II assumed that mercury being received from ore processors would be shipped to a RCRA-permitted treatment facility prior to receipt at the DOE storage facility. Under the 2023 Interim Guidance, DOE no longer anticipates that this pre-storage treatment would be required for the full projected inventory; however, to provide perspective on how this could affect impacts, some of the analyses in Chapter 4 (i.e., air quality and transportation accidents) evaluate the range of potential impacts in the event that pre-storage treatment was implemented. Therefore, this Final SEIS-II reflects the potential range of estimated total shipment miles.

Elemental mercury designated for storage is expected to originate from five source locations (see Chapter 2, Figure 2-2). This SEIS-II assumes that mercury currently stored at Y-12; Union Grove, Wisconsin; and Emelle, Alabama, would be shipped directly to a storage location and that mercury generated by ore processors (assumed to come from Carlin, Nevada, or the Port of Oakland in California) could, but is not anticipated to, require pre-storage treatment. Although not anticipated, but in order to address the scenario where some generators ship mercury for pre-storage treatment, the estimated distances in “truck miles per shipment” in Table B-3 from Carlin, Nevada, and the Port of Oakland (third and fourth columns from the left) include the total distance from the source location to Bethlehem, Pennsylvania, and then to each respective storage facility alternative. Because the majority of elemental mercury generated from ore processing, would originate in the western United States, using Bethlehem, Pennsylvania, as the assumed treatment location maximizes the total truck miles, providing a more conservative analysis. Additionally, a column has been added to Table B-3 for this Final SEIS-II to reflect the anticipated total truck miles assuming all mercury would be shipped directly to a storage facility. Because the majority of ore processing mercury, which could be subject to additional treatment, would originate in the western United States, using Bethlehem, Pennsylvania, as the assumed treatment location maximizes the total truck miles, providing a more conservative analysis. The truck miles per shipment were then multiplied by the estimated number of truck shipments required to transport mercury over the 40-year accumulation period (see Chapter 2, Table 2-5) to estimate total number of truck miles to transport all mercury to a specific storage site (Table B-3).<sup>3</sup>

**Table B-3 Truck Miles Per Shipment and Total Truck Miles Over the 40-Year Period from Mercury Source Locations to Each Storage Alternative**

Site Alternative	Mercury Source Location					Total Truck Miles <sup>c</sup> (assuming pre-storage treatment)	Anticipated Total Truck Miles <sup>c</sup>
	Y-12 National Security Complex	Ore Processors (assumed shipped from Carlin, Nevada) <sup>b</sup>	Other Ore Processors (via Port of Oakland) <sup>b</sup>	Commercial Storage			
				WM, Union Grove, Wisconsin	WM, Emelle, Alabama		
<b>Hawthorne Army Depot</b>	2,300 <sup>a</sup>	5,000	5,480	1,940	2,080	2,344,270	373,693
<b>Waste Control Specialists</b>	1,220	4,190	4,670	1,320	925	1,887,330	626,670
<b>Bethlehem Apparatus Company</b>	650	2,370	2,850	810	1,000	1,081,265	1,079,301
<b>Perma-Fix DSSI</b>	20	3,030	3,510	630	350	1,289,695	866,228

<sup>3</sup> For the purpose of analyses and to be conservative, the total number of truck miles assumes that 7,000 MT of elemental mercury is shipped to each facility, even though several of the facilities do not have the capacity to store this amount. Any amount less than 7,000 MT shipped to any facility would result in impacts less than estimated in this appendix.

Site Alternative	Mercury Source Location					Total Truck Miles <sup>c</sup> (assuming pre-storage treatment)	Anticipated Total Truck Miles <sup>e</sup>
	Y-12 National Security Complex	Ore Processors (assumed shipped from Carlin, Nevada) <sup>b</sup>	Other Ore Processors (via Port of Oakland) <sup>b</sup>	Commercial Storage			
				WM, Union Grove, Wisconsin	WM, Emelle, Alabama		
<b>Veolia Gum Springs</b>	585	3,590	4,070	790	405	1,571,380	810,461
<b>CH-Grassy Mountain</b>	1,875	4,520	5,000	1,510	1,840	2,101,570	315,118
<b>CH-Greenbrier</b>	190	3,190	3,670	535	335	1,369,330	816,035
<b>CH-Pecatonica</b>	655	3,205	3,685	85	800	1,419,880	743,207
<b>Number of Truck Shipments<sup>d</sup></b>	80	393	24	8	23	528	528

CH=Clean Harbors, WM=Waste Management Mercury Waste, Inc. & Chemical Waste Management, Inc.

a Miles rounded to nearest five miles.

b The Draft SEIS-II included pre-storage shipment to a RCRA-permitted treatment facility prior to transport to the alternative site.

c Total truck miles/alternative site equals number of shipments per site x number of miles from source site summed across shipments from all source locations.

d Assumes full truck shipments (see Chapter 2, Table 2-5, of this SEIS-II).

e. Estimated total truck miles without pre-storage treatment.

The increased total truck miles that account for potential pre-storage treatment did not change the frequency level of potential accidents for any of the alternative sites when compared to the 2011 analysis. Similarly, the anticipated total truck miles (without pre-storage treatment) do not change the frequency level of potential accidents for any of the alternative sites when compared to the 2011 analysis.

Data from the U.S. Department of Transportation Federal Motor Carrier Safety Administration (FMCSA) indicate that truck accident rates have changed slightly since the data used in the 2011 EIS, which used accident rate data (truck accidents per 100 million miles) obtained from the FMCSA for the 4-year period 2004–2007. For this SEIS-II, DOE reviewed similar data from FMCSA for the 4-year period 2016–2019. The updated data indicate that the accident rates for different scenarios (property damage only, injuries, and fatalities) are relatively consistent with the data used in the 2011 Mercury Storage EIS. Incident rates of accidents involving property damage decreased 7.4 percent from 2004–2007 to 2016–2019. Incident rates of accidents involving injuries increased 8.1 percent from 2004–2007 to 2016–2019. Incident rates of accidents involving fatalities decreased 21 percent from 2004–2007 to 2016–2019 (FMCSA 2021a, 2021b, 2021c). Considering that these accident rates have mostly decreased and are only used in the transportation analysis to determine the appropriate FL range, the small changes in initiating accident rates would not result in different FLs for the analysis of transportation risk.

The total truck shipment miles to the alternative sites in the 2011 Mercury Storage EIS ranged from 754,705 to 1,251,164 miles. As identified in Table B-3, the total truck shipment miles to the alternative sites (assuming pre-storage treatment, even though it is not anticipated) range from 1,081,265 to 2,344,270 miles. The anticipated total truck shipment miles (without pre-storage treatment) range from 315,118 to 1,079,301 miles.

As discussed in the 2011 Mercury Storage EIS, the only scenario that has the potential for mercury to be deposited on the ground or in waterbodies is one involving a fire, which would cause the mercury to be converted from the elemental form, which has essentially zero potential for deposition or scavenging, to a form that can deposit. A fire would cause the released mercury to rise, such that the most likely possibility for high levels of mercury to be deposited on the ground near the source is if it is raining while the release is taking place. Appendix D, Table D-16, in the 2011 Mercury Storage EIS presents a detailed analysis of the probability of rainfall at potential mercury storage sites done by analyzing hourly rainfall data over a 5-year period. That analysis covered a geographic range similar to the alternative sites evaluated in this SEIS-II. Because the various potential transportation routes would pass through regions of different rainfall characteristics, an average rainfall probability of the sites of 0.032 inch was used. The probability of rainfall at sites evaluated in 2011 ranged from 0.016 inch at HWAD in Nevada, to 0.056 inch at SRS in South Carolina. Although this SEIS-II includes more sites located in higher rainfall areas, most of the mercury shipments would originate in the arid climate of Nevada, and it is reasonable to use a similar probability of rainfall in this analysis. The predicted frequencies of crashes with fires during rainfall are given in Table B-4. Similar to the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS, all fall within the low frequency range, or less than once in 10,000 years to once in one million years. An additional column has been added to Table B-4 to reflect the lower anticipated frequencies that account for the lower estimated total truck miles discussed above. This entry demonstrates that, while lower, the probabilities still fall in the low-frequency level for all alternative sites.

**Table B-4 Predicted Frequencies of Crashes with Fires During Rainfall**

Alternative Site	Frequency of Accidents with Fires During Rainfall (per year)	Anticipated Frequency with Lower Shipment Miles
Hawthorne Army Depot	$1.2 \times 10^{-5}$	$1.9 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)
Waste Control Specialists	$9.7 \times 10^{-6}$	$3.2 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)
Bethlehem Apparatus Company	$5.6 \times 10^{-6}$	$5.6 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)
Perma-Fix DSSI	$6.7 \times 10^{-6}$	$4.5 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)
Veolia Gum Springs	$8.1 \times 10^{-6}$	$4.2 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)
Clean Harbors Grassy Mountain	$1.1 \times 10^{-5}$	$1.6 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)
Clean Harbors Greenbrier	$7.1 \times 10^{-6}$	$4.2 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)
Clean Harbors Pecatonica	$7.3 \times 10^{-6}$	$3.8 \times 10^{-6}$
	Low (FL-II)	Low (FL-II)

## **B.5 Human Toxicity Assessment for Mercury**

The potential toxicity of mercury to human receptors defines the consequence component of the risk assessment matrix (Figure B-1). As described and discussed in the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS, the risk assessment considers three forms of mercury: (1) elemental mercury, which is the form in which mercury would be stored and transported; (2) inorganic/divalent mercury, which is the form into which elemental mercury can be converted if it is involved in a fire; and (3) methylmercury, which can potentially be formed if elemental mercury or inorganic mercury becomes mixed with soil or sediment. In its Mercury Study Report to Congress (EPA 1997a, 1997b, 1997c), the U.S. Environmental Protection Agency (EPA) provided exhaustive descriptions of the potential effects of these forms of mercury on humans. Appendix D, Sections D.3.1–D.3.3, of the 2011 Mercury Storage EIS provides a summary of that information.

The principal route of exposure to elemental mercury is by inhalation. Once absorbed through the lungs, it is readily distributed throughout the body and may cause a range of adverse neurological effects at low exposure levels, such as tremors; emotional liability (changeable mood, irritability, excessive shyness, loss of confidence, and nervousness); insomnia; muscle weakness, twitching, and atrophy; headaches; and impairment of cognitive function. Elemental mercury may also result in adverse renal effects and pulmonary dysfunction.

In contrast to elemental mercury, ingestion with subsequent absorption through the gastrointestinal tract is an important route of exposure for inorganic mercury salts. Adverse effects of exposure to inorganic mercury include kidney disease, peripheral and motor neurotoxicity, and renal impairment.

Methylmercury is a highly toxic substance that is readily absorbed through the gastrointestinal tract. As is well known, the principal concern is ingestion of methylmercury in fish. Once in the body, it readily passes into the adult and fetal brain, where it accumulates and is subsequently converted to inorganic mercury. Consequently, the nervous system is considered to be the critical target organ system for methylmercury toxicity. The nervous system of developing organisms is considered of special concern.

The definition of SL-I through SL-IV as shown earlier in Figure B-1 for human receptors is described in detail in Appendix D, Section D.1.1, of the 2011 Mercury Storage EIS and updated in Appendix E, Section E.2, of the 2013 Mercury Storage SEIS. It is necessary to assign these levels for several cases: (a) acute-inhalation exposures to the public, (b) acute-inhalation exposures to workers, (c) chronic-inhalation exposures to the public and workers, (d) exposures to mercury deposited on the ground, and (e) consumption of methylmercury in fish. Section D.1.1.2 of the 2011 Mercury Storage EIS and Section E.2 of the 2013 Mercury Storage SEIS discuss how these SLs are assigned. The updates to these SLs in the 2013 Mercury Storage SEIS are primarily associated with the definition of the Protective Action Criteria-1 (PAC-1) value and the definition of inhalation SL-I and SL-II.

**B.5.1 Acute-Inhalation Exposures – Involved and Noninvolved Workers and Public Receptors**

The assignment of SLs for acute inhalation (i.e., inhalation of elemental mercury or inorganic mercury) is discussed in detail in Appendix D, Sections D.1.1.2.1 and D.1.1.2.3, of the 2011 Mercury Storage EIS and updated in Appendix E, Section E.2, of the 2013 Mercury Storage SEIS. The SLs are related to EPA’s acute exposure guideline levels (AEGLs), DOE’s PACs and temporary emergency exposure limits, and the American Conference of Governmental Industrial Hygienists’ (ACGIH’s) threshold limit values (TLVs), as summarized in Table B-5.

The three levels of the AEGLs are described in the 2013 Mercury Storage SEIS in Appendix D, Section D.3.1. Table B-6 shows the EPA’s interim AEGLs for elemental mercury. Note that AEGL-1 has not been defined for mercury because mercury is odorless and without irritation at concentrations that may be harmful (EPA 2010). As discussed in Appendix B, Section B.2, of the 2013 Mercury Storage SEIS, DOE determined that a “surrogate AEGL-1” to define the boundary between SL-II and SL-I should be the PAC-1 of 0.15 milligram per cubic meter for durations of exposure up to one hour and the ACGIH TLV for an eight-hour time-weighted average of 0.025 milligram per cubic meter for durations of exposure exceeding one hour. This SEIS-II also uses this approach.

**Table B-5 Definition of Consequence Severity Bands for Acute Inhalation of Elemental Mercury and Inorganic Mercury – Public Receptors<sup>a</sup>**

Acute-Inhalation Consequence Severity Level	Corresponding Airborne Concentrations of Elemental Mercury	Expected Health Effects
Inhalation SL-IV	≥ AEGL-3 (see Table B-6)	Potential for lethality as concentration increases above AEGL-3
Inhalation SL-III	< AEGL-3 and ≥ AEGL-2 (see Table B-6)	Potential for severe, sublethal, irreversible health effects
Inhalation SL-II	< AEGL-2 and (a) ≥ PAC-1 <sup>b</sup> ( $t_d \leq 1$ hour) (b) ≥ ACGIH TLV 8-hour TWA ( $t_d > 1$ hour)	Potential for transient health effects, reversible on cessation of exposure
Inhalation SL-I	(a) < PAC-1 ( $t_d \leq 1$ hour) (b) < ACGIH TLV 8-hour TWA ( $t_d > 1$ hour)	Negligible-to-very-low consequences

≥ =greater than or equal to; <=less than; ACGIH=American Conference of Governmental Industrial Hygienists; AEGL=acute exposure guideline level; mg/m<sup>3</sup>=milligrams per cubic meter; PAC=Protective Action Criterion;  $t_d$ =duration of exposure; TLV=threshold limit value; TWA=time-weighted average.

a Exposure period up to eight hours.

b PAC-1=0.15 mg/m<sup>3</sup> (DOE 2012); ACGIH-0=0.025 mg/m<sup>3</sup> (OSHA 2012).

Source: DOE 2013, Table D-5

**Table B-6 EPA Interim Values for Mercury Vapor AEGLs**

Exposure Guideline	10 minutes	30 minutes	60 minutes	4 hours	8 hours
AEGL-1 <sup>a</sup>	NR	NR	NR	NR	NR
AEGL-2	3.1 mg/m <sup>3</sup>	2.1 mg/m <sup>3</sup>	1.7 mg/m <sup>3</sup>	0.67 mg/m <sup>3</sup>	0.33 mg/m <sup>3</sup>
AEGL-3	16 mg/m <sup>3</sup>	11 mg/m <sup>3</sup>	8.9 mg/m <sup>3</sup>	2.2 mg/m <sup>3</sup>	2.2 mg/m <sup>3</sup>

ACGIH=American Conference of Governmental Industrial Hygienists; AEGL=acute exposure guideline level; EPA=U.S. Environmental Protection Agency; mg/m<sup>3</sup>=milligrams per cubic meter; NR=not recommended.

a Table B-5 uses PAC-1 and the ACGIH TLV for 8-hour time-weighted average as a surrogate AEGL-1. The reasons for doing so are described in Appendix B, Section B.2, of the 2013 Mercury Storage SEIS. In short, EPA has yet to publish values for the AEGL-1 for elemental mercury.

Note: Reported values are in milligrams per cubic meter, not parts per million. AEGLs for durations of exposure other than those explicitly listed in this table are obtained by linear interpolation.

Source: EPA 2010

Appendix D, Section D.1.1.2.3, of the 2011 Mercury Storage EIS also explains why the severity bands in Table B-5 also apply to inorganic/divalent mercury as well as to elemental mercury. AEGLs and PACs for methylmercury were not used because the accident scenarios considered are such that they can only lead to inhalation of elemental mercury or inorganic mercury. Methylmercury can only be formed after deposition of the inorganic mercury on the ground or on water and mixing with soil or sediment.

As discussed in Appendix D, Section D.3.1, of the 2013 Mercury Storage SEIS, it is reasonable to adopt the same acute-inhalation SLs in Table B-5 for workers as for members of the public (in conditions of acute exposure, but not for chronic inhalation under normal operating conditions).

### **B.5.2 Chronic-Inhalation Exposures – Involved and Noninvolved Workers and Public Receptors**

As discussed in Appendix D, Section D.3.1, of the 2013 Mercury Storage SEIS, there is no need to define the thresholds for SL-III and SL-IV for chronic-inhalation exposures to humans inside a building because it is assumed that, during normal operations, involved workers would never be exposed to airborne concentrations of mercury vapor above the ACGIH's time-weighted average (TWA)/TLV of 0.025 mg/m<sup>3</sup> of mercury vapor (OSHA 2012). Referring to Figure B-1, this defines the threshold between SL-I and SL-II. The analysis performed for the 2013 Mercury Storage SEIS showed that involved worker exposures would always be below this threshold, assuming a combination of ventilation, inspection, monitoring, and use of personal protective equipment, as required by RCRA requirements, as well as applicable national consensus codes and standards (e.g., Occupational Safety and Health Administration [OSHA], National Fire Protection Association [NFPA]). Appendix D, Section D.4.1.2, of the 2011 Mercury Storage EIS reviews observed concentrations near the Defense Logistics Agency mercury storage warehouses (Shim et al. 2002, as cited in DOE 2011) and confirms that these observations are consistent with the prediction that long-term exposure to elemental mercury vapor during normal operations is well below EPA's reference concentration of  $3.0 \times 10^{-4}$  milligram per cubic meter. This threshold would also apply to noninvolved workers and public receptors.

### **B.5.3 Exposure to Deposited Mercury – All Human Receptors**

Appendix D, Section D.1.1.2.6, of the 2011 Mercury Storage EIS discusses a value for the level of deposited mercury that can be used to define the boundary between SL-I and SL-II based on an extensively studied real-life case: that of the remediation of East Fork Poplar Creek in Oak Ridge, Tennessee, and its floodplain. It was judged that the boundary between SL-I (negligible-to-very-low consequences) and SL-II (onset of adverse consequences due to ingestion of inorganic mercury) is a deposited concentration of inorganic mercury of 180 milligrams per kilogram. Beyond that, no guidance has been found as to the level that would cause irreversible health effects or fatalities. The analysis performed for the 2013 Mercury Storage SEIS showed that there are no scenarios in which mercury would be deposited (either by dry or wet deposition) at levels above 180 milligrams per kilogram, so there is no need to define the thresholds for SL-III and SL-IV.

### **B.5.4 Exposure to Methylmercury Accumulated in Fish – All Human Receptors**

As discussed in the 2013 Mercury Storage SEIS, the accumulation of methylmercury in fish, subsequently consumed by humans, is a concern. The EPA criterion for methylmercury in fish is 0.3 milligram of methylmercury per kilogram of fish tissue, wet weight (EPA 2009). Consumption of methylmercury in amounts less than this criterion is expected to have negligible effects on human health. Therefore, the EPA criterion is taken to be the boundary between SL-I and SL-II for health effects resulting from the average American's consumption of fish.

### **B.5.5 Summary Consequence Severity Level**

Table B-7 summarizes the potential consequence SLs for the exposure scenarios. These data are used later in Section B.6.

**Table B-7 Summary of Definitions of Consequence Severity Levels**

Severity Level	Acute-Inhalation Exposures – Involved and Noninvolved Workers and Public Receptors <sup>a</sup>		Chronic-Inhalation Exposures – Involved Workers <sup>b</sup>		Chronic-Inhalation Exposures – Noninvolved Workers and Public Receptors <sup>b</sup>		Exposure to Deposited Mercury – All Human Receptors		Exposure to Methylmercury Accumulated in Fish – All Human Receptors	
	Level Definition	Consequence	Level Definition	Consequence	Level Definition	Consequence	Level Definition	Consequence	Level Definition	Consequence
IV	≥ AEGL-3	Potential for lethality as concentration increases above AEGL-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
III	< AEGL-3 and ≥ AEGL-2	Potential for severe, sublethal, irreversible health effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
II	< AEGL-2 and ≥ PAC-1 ( $t_d \leq 1$ hour) or ≥ ACGIH TLV 8-hour TWA ( $t_d > 1$ hour)	Potential for reversible health effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	< PAC-1 ( $t_d \leq 1$ hour) or < ACGIH TLV 8-hour TWA ( $t_d > 1$ hour)	Potential for negligible-to-very-low health consequences	< ACGIH's 8-hour TWA/TLV 0.025 mg/m <sup>3</sup>	Negligible	< EPA RfC 0.0003 mg/m <sup>3</sup>	Negligible	< ATSDR-approved cleanup level (180 mg/kg) for East Fork Poplar Creek	Negligible	Methylmercury limit in fish tissue (mg/kg) < 0.3	Negligible

≥=greater than or equal to; <=less than; ≤=less than or equal to; ACGIH=American Conference of Governmental Industrial Hygienists; AEGL=Acute Exposure Guideline Level; ATSDR=Agency for Toxic Substances and Disease Registry; EPA=U.S. Environmental Protection Agency; mg/kg=milligrams per kilogram; mg/m<sup>3</sup>=milligrams per cubic meter; N/A=not applicable; PAC=Protective Action Criterion; RfC=reference concentration;  $t_d$ =duration of exposure; TLV=threshold limit value; TWA=time-weighted average

a Applies to both elemental mercury vapor and inorganic mercury.

b Elemental mercury vapor inhalation.

## **B.6 Exposure Assessment and Human Risk Analysis**

### **B.6.1 Exposure During Normal Operating Conditions**

This pathway applies to any alternative or location in which the mercury is stored for an extended period of time. Exposures to involved workers could arise during normal operating conditions from small amounts of elemental mercury vapor escaping from storage containers or from residual contamination. Mercury vapor transported downwind could then be inhaled by noninvolved workers or members of the public. Because the mercury would escape as elemental mercury vapor, virtually no deposition of mercury would occur; therefore, mercury inhalation is the only exposure route of concern. Because the alternative sites would maintain similar normal operating conditions such as those required by the RCRA permit, as well as other operational codes and standards (e.g., OSHA, NFPA), the exposure analysis for the involved worker, noninvolved worker, and public receptor would be the same as the analyses in the 2011 Mercury Storage EIS, with exposure standards as updated in the 2013 Mercury Storage SEIS. Those analyses are summarized in the following sections and updated with site-specific information as needed.

#### **B.6.1.1 Involved Worker**

As discussed in the Appendix D, Section D.4.1.1.1, of the 2011 Mercury Storage EIS, it is assumed that involved workers, during normal operations, would never be exposed to airborne concentrations of mercury vapor above the ACGIH's 8-hour TWA/TLV of 0.025 mg/m<sup>3</sup> of mercury vapor. This would be achieved by a combination of ventilation, inspection, monitoring, and use of personal protective equipment. Inspections on receipt of mercury storage containers for storage, and routine inspections during storage, would decrease the risk of residual mercury contamination. Given the above assumptions about the operation of the facility, the concentrations to which the involved worker would be exposed would always be negligible (SL-I) during normal operations, and hence the associated human health risk would be negligible (DOE 2011). The 2011 Mercury Storage EIS describes historical data from other facilities that have stored mercury, which indicates that peak and average concentrations of mercury vapor can be kept below the ACGIH's 8-hour TWA/TLV of 0.025 mg/m<sup>3</sup> with no difficulty. Based on this information, the health risk to an involved worker from exposure to mercury vapor during normal operations at any of the alternative sites evaluated in this SEIS-II is expected to be negligible.

#### **B.6.1.2 Noninvolved Worker and Public Receptor**

As explained in Appendix D, Sections D.2.3 and D.4.1.2, of the 2011 Mercury Storage EIS, a mercury leakage sufficient to cover the bottom of a spill tray, which then remains undetected indefinitely, is taken as a surrogate scenario for the purposes of estimating impacts on noninvolved workers and the public during normal operations. With the required inspections and monitoring during receipt and storage of mercury containers, it is inconceivable that such a leak would go undetected, so this is considered a very conservative (i.e., unlikely) scenario.

This scenario has mercury evaporating in a steady state from the spill tray, which would leak from the storage building and mix in the turbulent building wake. The building wake contains a volume of air on the downwind side of a building in which turbulence generated by wind passing the building causes thorough mixing. As described in Appendix D, Section D.4.1.2, of the 2011

Mercury Storage EIS, the mixing in the building wake is inversely proportional to the area of the smallest side (i.e., width times height) of the building. In 2011, the predicted concentration in the wake of a generic standardized building (506-feet long by 336-feet wide by 20-feet high) for alternative sites with new construction would be no more than  $2.16 \times 10^{-5}$  mg/m<sup>3</sup>. To adjust this value for existing buildings of various sizes, building wake factors are calculated based on the smallest cross-sectional area of each building relative to the generic standardized building (i.e., cross-sectional areas of generic building/alternative site building). Smaller buildings would have higher wake factors and therefore higher potential mercury concentrations because of less building turbulence and less mixing.

Table B-8 shows specifications for each building associated with the alternative sites, including the building wake factors for each building. Table B-9 provides the estimated building wake concentrations for the evaluated accident scenarios (discussed in Section B.6.2). The building wake factors (unitless) range from 1.62 to 9.33 (the building wake factors for the existing buildings evaluated in 2011 ranged from 0.42 to 9.16). The highest building wake concentration under a chronic release scenario would be no more than 9.33 times higher than the generic standardized building evaluated in 2011, or approximately 0.0002 mg/m<sup>3</sup> (first row of Table B-9), slightly higher than the highest estimated concentration reported in the 2011 Mercury Storage EIS. As stated in the 2011 Mercury Storage EIS, the appropriate concentration for comparison is the EPA's AEGL concentration of 0.0003 mg/m<sup>3</sup> (Table B-7), below which long-term concentrations are considered to be negligible. The noninvolved worker might actually be in the turbulent building wake. The public receptor would be farther downwind, at which point even more dilution of the plume would have occurred. Therefore, for all sites, the predicted airborne concentrations encountered by the noninvolved worker and the public receptor would be negligible (SL-I), and the associated health risks likewise would be negligible. Measurements of mercury concentrations near the former Defense National Stockpile Center mercury storage warehouses and the Y-12 mercury storage building indicate values well below the EPA's reference concentration under normal operations (DOE 2011, Section D.4.1.2).

**Table B-8 Size of Buildings and Building Wake Factors for the Site Alternatives**

Site	Length (feet)	Width (feet)	Height (feet)	Number of Buildings	Floor Area (square feet × number of buildings)	Area of Building Smallest Side (width × height)	Building Wake Factor
Hawthorne Army Depot	200	50	14.8	9	90,000	740	9.08
	160	50	14.8	10	80,000		
	100	50	14.8	10	50,000		
Waste Control Specialists	190	166	25.0	1	31,540	4,150	1.62
Bethlehem Apparatus Company	192	160	20.0	2	30,720	3,200	2.10
	120	120	24.0		14,400	2,880	2.33
Perma-Fix DSSI	140	60	18.5	1	8,400	1,110	6.05
Veolia Gum Springs <sup>a</sup>	368	47	44.9	1	17,296	2,964	2.49
	378	67	44.9		25,326		
	210	66	44.9		13,860		
Clean Harbors Grassy Mountain	80	73	30	1	5,840	2,190	3.07
Clean Harbors Greenbrier	100	60	20	1	6,000	1,200	5.60
Clean Harbors Pecatonica	100	60	12	2	6,000	720	9.33
	274	168	18		46,032	3,024	2.22

a Veolia Gum Springs has three floor areas in one building that could be used for long-term mercury storage; an average width of 60 feet was used to calculate the area of the smallest building side.

Table B-9 Building Wake Concentrations for Site Alternative Buildings

Scenario	Outdoors (O)/Stability Category or Indoors (I) <sup>a</sup>	Concentration in Building Wake (new construction) <sup>b</sup>	Hawthorne Army Depot	Waste Control Specialists	Bethlehem Apparatus <sup>e</sup>	Perma-Fix DSSI	Veolia Gum Springs	Clean Harbors Grassy Mountain	Clean Harbors Greenbrier	Clean Harbors Pecatonica <sup>f</sup>
Full spill tray (slow release scenario) <sup>c</sup>	I	2.16×10 <sup>-5</sup>	1.96×10 <sup>-4</sup>	3.50×10 <sup>-5</sup>	4.54×10 <sup>-5</sup>	1.31×10 <sup>-4</sup>	5.39×10 <sup>-5</sup>	6.63×10 <sup>-5</sup>	1.21×10 <sup>-4</sup>	2.02×10 <sup>-4</sup>
					5.04×10 <sup>-5</sup>					4.80×10 <sup>-5</sup>
	O/D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	O/F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Single-flask spill	I	9.96×10 <sup>-6</sup>	9.04×10 <sup>-5</sup>	1.61×10 <sup>-5</sup>	2.09×10 <sup>-5</sup>	6.03×10 <sup>-5</sup>	2.48×10 <sup>-5</sup>	3.06×10 <sup>-5</sup>	5.58×10 <sup>-5</sup>	9.30×10 <sup>-5</sup>
					2.32×10 <sup>-5</sup>					2.21×10 <sup>-5</sup>
	O/D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	O/F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Single-pallet spill	I	1.85×10 <sup>-4</sup>	1.68×10 <sup>-3</sup>	3.00×10 <sup>-4</sup>	3.89×10 <sup>-4</sup>	1.12×10 <sup>-3</sup>	4.61×10 <sup>-4</sup>	5.68×10 <sup>-4</sup>	1.04×10 <sup>-3</sup>	1.73×10 <sup>-3</sup>
					4.32×10 <sup>-4</sup>					4.11×10 <sup>-4</sup>
	O/D	4.17×10 <sup>-3</sup>	3.79×10 <sup>-2</sup>	6.75×10 <sup>-3</sup>	8.76×10 <sup>-3</sup>	2.52×10 <sup>-2</sup>	1.04×10 <sup>-2</sup>	1.28×10 <sup>-2</sup>	2.34×10 <sup>-2</sup>	3.89×10 <sup>-2</sup>
					9.73×10 <sup>-3</sup>					9.27×10 <sup>-3</sup>
O/F	4.39×10 <sup>-3</sup>	3.99×10 <sup>-2</sup>	7.11×10 <sup>-3</sup>	9.22×10 <sup>-3</sup>	2.66×10 <sup>-2</sup>	1.10×10 <sup>-2</sup>	1.35×10 <sup>-2</sup>	2.46×10 <sup>-2</sup>	4.10×10 <sup>-2</sup>	
				1.02×10 <sup>-2</sup>					9.76×10 <sup>-3</sup>	
Triple-pallet spill	I	4.21×10 <sup>-4</sup>	3.82×10 <sup>-3</sup>	6.82×10 <sup>-4</sup>	8.84×10 <sup>-4</sup>	2.55×10 <sup>-3</sup>	1.05×10 <sup>-3</sup>	1.29×10 <sup>-3</sup>	2.36×10 <sup>-3</sup>	3.93×10 <sup>-3</sup>
					9.82×10 <sup>-4</sup>					9.36×10 <sup>-4</sup>
	O/D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	O/F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1-MT container spill	I	1.24×10 <sup>-4</sup>	1.13×10 <sup>-3</sup>	2.01×10 <sup>-4</sup>	2.60×10 <sup>-4</sup>	7.51×10 <sup>-4</sup>	3.09×10 <sup>-4</sup>	3.80×10 <sup>-4</sup>	6.94×10 <sup>-4</sup>	1.16×10 <sup>-3</sup>
					2.89×10 <sup>-4</sup>					2.76×10 <sup>-4</sup>
	O/D	8.68×10 <sup>-4</sup>	7.88×10 <sup>-3</sup>	1.41×10 <sup>-3</sup>	1.82×10 <sup>-3</sup>	5.25×10 <sup>-3</sup>	2.17×10 <sup>-3</sup>	2.66×10 <sup>-3</sup>	4.86×10 <sup>-3</sup>	8.10×10 <sup>-3</sup>
					2.03×10 <sup>-3</sup>					1.93×10 <sup>-3</sup>
O/F	7.28×10 <sup>-4</sup>	6.61×10 <sup>-3</sup>	1.18×10 <sup>-3</sup>	1.53×10 <sup>-3</sup>	4.41×10 <sup>-3</sup>	1.82×10 <sup>-3</sup>	2.23×10 <sup>-3</sup>	4.08×10 <sup>-3</sup>	6.79×10 <sup>-3</sup>	
				1.70×10 <sup>-3</sup>					1.62×10 <sup>-3</sup>	

Scenario	Outdoors (O)/Stability Category or Indoors (I) <sup>a</sup>	Concentration in Building Wake (new construction) <sup>b</sup>	Hawthorne Army Depot	Waste Control Specialists	Bethlehem Apparatus <sup>e</sup>	Perma-Fix DSSI	Veolia Gum Springs	Clean Harbors Grassy Mountain	Clean Harbors Greenbrier	Clean Harbors Pecatonica <sup>f</sup>
Earthquake spill – pool confined to building area <sup>d</sup>	I	4.34×10 <sup>-2</sup>	1.69×10 <sup>-1</sup>	1.30×10 <sup>-2</sup>	1.65×10 <sup>-2</sup> 8.58×10 <sup>-3</sup>	1.30×10 <sup>-2</sup>	3.60×10 <sup>-2</sup>	4.57×10 <sup>-3</sup>	8.58×10 <sup>-3</sup>	1.43×10 <sup>-2</sup> 2.61×10 <sup>-2</sup>
	O/D	N/A <sup>d</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	O/F	N/A <sup>d</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

kg=kilograms; kg/m<sup>3</sup>=kilograms per cubic meter; kg/s=kilograms per second; m<sup>2</sup>=square meters; m/s=meters per second; MT=metric ton; N/A=not applicable

a Wind speed for (I)=0.1 m/s, Stability Category D=4.5 m/s, and Stability Category F=1.5 m/s

b Obtained from Appendix D, Table D-24, of the 2011 Mercury Storage EIS.

c Surrogate for a chronic release during normal operations.

d These scenarios assume that the building has collapsed, hence no building wake.

e Bethlehem Apparatus has two buildings, top number is for 945 Bethlehem Dr. and bottom number is for 1055 Win Dr.

f Clean Harbors Pecatonica has two buildings; the top number is for CSB1, the bottom number is for CSB2.

Note: To convert kilograms to pounds, multiply by 2.2046; square meters to square feet, by 10.7639; meters to feet, by 3.281; cubic meters to 8 cubic feet, by 35.315.

## B.6.2 Onsite Accidents

Several onsite accidents that could pose a potential human risk to workers and public receptors were analyzed (see Table B-1). These scenarios are the same as those analyzed in the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS. Table B-10 delineates these accident scenarios as occurring indoors and/or outdoors. As indicated, all accidents could occur inside the building while three could also occur outside.

**Table B-10 Location of Accidents in Onsite Spill Analysis**

Accident Scenario	Could Occur Inside?	Could Occur Outside?
Single-flask spill	Yes	No <sup>a</sup>
Single-pallet spill	Yes	Yes
Triple-pallet spill	Yes	No <sup>b</sup>
1-MT container spill	Yes	Yes
Earthquake spill <sup>c</sup>	Yes <sup>d</sup>	Yes <sup>e</sup>

MT=metric ton

- a Mercury flasks are transported and stored in pallets in a 7×7 flask configuration. Flasks may be removed from a pallet if they are leaking or if flasks from partially filled or smaller pallets are consolidated.
- b Triple-pallet collapse could only occur when the pallets are inside on the storage racks.
- c This scenario encompasses the risk from tornadoes, high winds, and floods.
- d Earthquake leaves building relatively intact.
- e Earthquake causes building collapse. This assumes a beyond-design-basis earthquake.

Appendix D, Section D.4.2.1, of the 2011 Mercury Storage EIS provides a general discussion of the onsite accident scenarios and the physical properties of mercury that help mitigate potential consequences. The following sections provide a summary discussion of potential accident consequences presented in Table B-9.

### B.6.2.1 Involved Worker (Inside) – All Onsite Spill Scenarios, All Sites

The analysis for these scenarios is the same as that in Appendix D, Section D.4.2.2, of the 2011 Mercury Storage EIS. The analysis does not depend on specific characteristics of the alternative sites and assumes that workers would react immediately to an onsite accident, which would reduce potential exposure to the SL-II (low) or even SL-I (very-low-to-negligible) consequences ranges. Combining the consequences in the SL-I to SL-II range with the low (FL-II) or moderate (FL-III) frequencies in Table B-1 gives a risk in the negligible-to-low range for the worker in the building at all sites.

### B.6.2.2 Noninvolved Worker and Public Receptor (Outside) – All Spill Scenarios

Table B-9 provides the estimated concentrations in the building wakes for buildings evaluated in this SEIS-II. For the earthquake scenario with the spill confined to the building, the spill is assumed to spread over the entire floor area. The evaporation rate is then proportional to the area of the mercury pool or the building floor area. The wake factor for the earthquake scenario is first multiplied by the ratio of the building floor area to that of the generic standardized building (170,000 square feet) analyzed in 2011 to account for the proportional increase or decrease in mercury evaporation. Table B-8 presents the dimensions of the buildings evaluated in this SEIS-II.

The last column of Table B-8 shows the factor by which the concentration in the building wake would change relative to the generic standardized building for new construction analyzed in 2011. The greatest factors are just over nine for the smaller of the two buildings at Clean Harbors Pecatonica and the buildings at HWAD. Table B-9 shows the predicted concentrations in the building wake for the onsite scenarios listed in Table B-1 including the slow release from the full spill tray under normal operations. These predicted concentrations are all of negligible (SL-I) severity except for the earthquake scenario at HWAD, where the predicted value ( $0.169 \text{ mg/m}^3$ ) is SL-II, just above the PAC-1 of  $0.15 \text{ mg/m}^3$ . This can be explained by the dimensions of the HWAD buildings, which have a relatively small cross-sectional area (larger wake factor) but are relatively long thus providing a large floor area for evaporation.

For the specific case of a beyond-design-basis earthquake in which the building collapses, the spilled mercury is assumed to spread across the full floor area of the building and evaporate as if in open air. Consistent with the 2011 EIS and 2013 SEIS, no attempt was made to differentiate the relative conditional probabilities of the two earthquake scenarios, i.e., they were both assigned a moderate (FL-III) frequency, which is extremely conservative because the beyond-design-basis earthquake is much less probable. The evaporation rate for this event is therefore also dependent on the floor area of the building. Under a collapsed building scenario, there would be no building wake and open-air evaporation of mercury is assumed under turbulent flow at a variety of external wind speeds to determine the maximum downwind distance where SL would be reached. The analysis in this SEIS-II conservatively used the mercury storage area of a newly constructed building from the 2011 Mercury Storage EIS, which assumed a floor area of 146,500 square feet. The floor areas for the alternative sites evaluated in this SEIS-II range from 6,000 square feet (Clean Harbors Greenbrier and Pecatonica) to 90,000 square feet (HWAD). In the immediate vicinity of the collapsed building, the concentration of mercury vapor would be in the SL-IV range, meaning potentially lethal concentrations could be present. The range of building wake factors and storage building floor areas for the alternative sites evaluated in this SEIS-II are within the range of wake factors and floor areas evaluated in the 2011 Mercury Storage EIS. Appendix E, Table E-2, of the 2013 Mercury Storage SEIS provides the updated maximum predicted distances to consequence SL-II, SL-III, and SL-IV concentrations of mercury vapor. For all alternative sites, the distance to a SL-IV concentration was less than 100 meters. This means that potential mercury concentrations would not be as high as SL-IV at distances of 100 meters or more from the collapsed building. Predicted distances to SL-III concentrations ranged from less than 100 meters to 250 meters at HWAD. Most sites had a predicted distance near 200 meters. The predicted distance to a SL-II (low consequence) level ranged from 200 to 1,010 meters. Based on the similar physical characteristics of the existing storage buildings evaluated in this SEIS-II, it is reasonable to assume that the range of distances to SL-II, SL-III, and SL-IV concentrations would be similar. To evaluate the potential consequences to an individual or public receptor(s), the distance to the nearest site boundary or public receptor was estimated (Table B-11).

**Table B-11 Distances to the Closest Site Boundary or Access to Public Receptor – Outdoor Earthquake Scenario**

Site	Distance	Direction	Notes
Hawthorne Army Depot	3.7 km	Southwest	Site boundary
Waste Control Specialists	250 meters	West	Site boundary
	1,000 meters	South	Nearest public access (highway)
	5.4 km	West	Nearest residence
Bethlehem Apparatus – 945 Bethlehem Drive	35 meters	East or South	Site boundary (city street)
	60-90 meters	North or East	Nearest business
	110 meters	North	Nearest residence
Bethlehem Apparatus – 1055 Win Drive	35 meters	East or South	Site boundary (city street)
	30-35 meters	East or West	Nearest business
	125 meters	West	Nearest residence
Perma-Fix DSSI	70 meters	East	Site boundary
	210 meters	South	Nearest public access (business)
	290 meters	South	Nearest residence
Veolia Gum Springs	100 meters	West	Fence line
	300 meters	South	Nearest public access (rural road)
	850 meters	West	Nearest residence
Clean Harbors Grassy Mountain	430 meters	East	Fence line
	10.7 km	South	Nearest public highway (Interstate-80)
	70 km	West	Nearest residence
Clean Harbors Greenbrier	40 meters	Southwest	Site boundary (street)
	140 meters	Southeast	Nearest residence
Clean Harbors Pecos – CSB-1	150 meters	West	Site boundary (highway)
	185 meters	Northwest	Nearest Residence (rural)
Clean Harbors Pecos – CSB-2	127 meters	West	Site boundary (highway)
	190 meters	Northwest	Nearest residence (rural)

Consequences to the public would not be above SL-I for HWAD, WCS, or Clean Harbors Grassy Mountain because the nearest public receptor (public highway or residence) is more than one kilometer away (assuming the maximum predicted distance for SL-II). Other than Bethlehem Apparatus and Clean Harbors Greenbrier, no site has public receptors within 100 meters that could potentially be exposed to a SL-IV level concentrations for any length of time.

With respect to the involved and noninvolved worker and potentially exposed members of the public that were within 200 meters of the facility, the reasoning here is much the same as it was for the involved worker inside the storage building (see Section D.4.2.2 of the 2011 Mercury Storage EIS). The saturated vapor density of mercury at the assumed release temperature of 20 °C is approximately 14 mg/m<sup>3</sup>. This is only slightly above the SL-IV threshold of 8.9 mg/m<sup>3</sup> for a 30-minute exposure and is less than the SL-IV of 16 mg/m<sup>3</sup> for a 10-minute exposure. In practice, should there be an event while a worker is present, that worker would be able to walk out of the cloud rapidly, in much less than the half-an-hour for which he or she could potentially be exposed

to the SL-IV levels and still be able to escape. Similarly, a nearby member of the public could also evacuate the area within this same time frame. Therefore, in practice the worker or member of the public would be exposed to a toxic load much less than that accumulated in a half-hour's exposure to 14 mg/m<sup>3</sup>. If the exposed individual moves rapidly, the equivalent toxic load could conceivably be in the SL-II or even SL-I range. Therefore, combining these with the conservative moderate (FL-III) frequency of an earthquake gives a negligible-to-low risk for both workers and nearby members of the public.

Table B-12 provides a summary of the potential risk from all onsite mercury spill scenarios. Additional discussion of the risks specific to each alternative site location is in Chapter 4 of this SEIS-II.

**Table B-12 Summary of Risks of All Onsite Elemental Mercury Spill Scenarios – All Site Alternatives**

Scenario	Frequency <sup>a</sup>	Consequence <sup>b</sup>	Risk
<b>Spills Inside Building<sup>c</sup></b>			
Involved worker	FL-III	SL-I	N–L for all inside spills
Noninvolved worker	FL-III	SL-I	N for all inside spills
Member of the public	FL-III	SL-I	N for all inside spills
<b>Spills Outside Building</b>			
Involved worker	FL-III	SL-I–SL-II	L for outside earthquake spill; N for all other outside spills
Noninvolved worker	FL-III	SL-I–SL-II	
Member of the Public			
1-MT container spill	FL-III	SL-I	N
Single-pallet spill	FL-III	SL-I	N
Earthquake with building collapse	FL-III	SL-I–SL-II	N to L

FL=frequency level; L=low; MT=metric ton; N=negligible; SL=severity level

a For definition of frequency levels, see Section B.4 and Table B-1 of this appendix

b For definitions of severity levels, see Tables B-5 and B-6 of this appendix.

c The inside spill scenarios considered are full spill tray under a pallet, single flask, single pallet, triple pallet, 1-MT container, and earthquake with intact building walls. This scenario encompasses the risk from floods, high winds, and tornadoes.

### B.6.3 Offsite Accidental Transportation Spills of Mercury

The 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS analyzed several transportation accident scenarios:

- Crash with spill of elemental mercury onto the ground without fire;
- Crash with spill of elemental mercury into water;
- Crash with fire in dry weather conditions (without rain) (to analyze the effects of dry deposition);
- Crash with fire in wet weather conditions (with rain) (to analyze the effects of wet deposition); and
- Crash with death caused by mechanical impact.

This SEIS-II evaluates similar transportation scenarios. The estimated frequency of an accident involving a truck transporting mercury is a function of the expected cumulative miles from the point of mercury generation to the particular storage facility. As described in Section B.4, these frequency levels are no more than the accident frequencies for the alternative sites analyzed in the 2011 Mercury Storage EIS, Table D-13 and D-17.

The potential exposure of a human receptor to mercury from an offsite truck transportation accident is a function of the crash characteristics (with or without fire), weather conditions (dry or wet), and the probability that a human receptor would be in close enough proximity of the accident to be exposed. These factors are independent of the location or characteristics of the alternative sites. Therefore, the analysis of consequences (i.e., severity level) of offsite truck accidents conducted in 2011 and updated in 2013 is applicable to the risk assessment in this SEIS-II when combined with the site-specific accident frequencies for transportation to each site. Appendix D, Sections D.4.3–D.4.5, in the 2011 Mercury Storage EIS and updated in Appendix E, Section E.2, in the 2013 Mercury Storage SEIS provides a full description and discussion of the consequence analyses for transportation accidents. The applicability of those results combined with the estimated site-specific transportation accident frequencies for alternative sites analyzed in this SEIS-II are described and summarized in the following sections.

### **B.6.3.1 Offsite Transportation Spills of Mercury without Fire**

For transportation accidents without fire, the pathway of exposure would be inhalation of mercury spilled and evaporating from a pool on the ground. Using the example of transportation to the Grand Junction Disposal Site from the 2011 Mercury Storage EIS and updated in the 2013 Mercury Storage SEIS, the estimated maximum distance to the airborne toxic benchmarks were provided as the following ranges: SL-IV, less than 330 feet; SL-III, less than 330 feet; and SL-II, about 750 feet.<sup>4</sup> As a result, a specific individual could not be exposed to concentrations that are greater than SL-I if he or she lives more than about 750 feet from the accident. Conservatively, that specific individual could only be exposed above SL-I if the accident occurs along a 1,500-foot stretch of road, and then only if he or she lives by the roadside. This is a small fraction of any of the routes, approximately 0.0002 of a 1,500-mile trip. For the Grand Junction site, the average length of a truck trip was 1,260 miles, which is slightly shorter than the average length of trips to five of the eight alternative sites analyzed in this SEIS-II (Table B-3). The probability of an accident occurring along any 1,500-foot segment of highway would be the accident frequency times 0.0002 for a 1,500-mile trip. This value is a negligible probability. Therefore, the risk to an individual member of the public from transportation accidents resulting in spills onto the ground without fire would be negligible for all alternative sites, similar to the 2011 analysis.

### **B.6.3.2 Transportation Accident with Spill of Elemental Mercury into Water**

With respect to a transportation accident with a spill of mercury into water, the 2011 Mercury Storage EIS states:

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<sup>4</sup> The predicted distance to SL-IV is in fact different from and less than that for SL-III. However, both distances are less than 330 feet. Since the atmospheric dispersion model is not valid at distances from the source less than 330 feet, both distances are written as “less than 330 feet.”

“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 that there is generally adequate time for such cleanup. Hence, the consequences to humans could be managed so that they would be 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, this assessment should be tempered by noting that there is a large range of uncertainty.”

This conclusion is independent of the physical characteristics of each alternative site location and the frequency of transportation accidents is FL-III (moderate) for all site locations. Therefore, the conclusion presented in the 2011 Mercury Storage EIS is applicable to all alternative sites analyzed in this SEIS-II.

### **B.6.3.3 Transportation Accident with Fire and Spill of Elemental Mercury**

Under a truck fire scenario, mercury is postulated to be released into the atmosphere and subsequently dispersed downwind. This analysis is described and discussed in Appendix D, Section D.4.5, of the 2011 Mercury Storage EIS, and the results are updated in Appendix E, Table E-3, of the 2013 Mercury Storage SEIS. This analysis is independent of the physical characteristics of each alternative site. The frequency of potential truck accidents with fire and a mercury spill range from FL-II to FL-III. As discussed in Section B.4, these estimates are similar to those in 2011. Therefore, the analysis in 2011 is applicable to the transportation of mercury to the alternative sites evaluated in this SEIS-II. The predicted range of distances downwind, to which an acute airborne severity level is exceeded for truck crashes with fire, is shown in Table E-3 of the 2013 Mercury Storage SEIS. The 2011 Mercury Storage EIS reported that a specific individual could be exposed to an SL-II airborne concentration of mercury over considerable distances. However, since no truck route has more than a moderate frequency (FL-III), the overall risk would be low for all transportation scenarios and all routes to all sites. Thus, by looking at the distances to which SL-III could be exceeded, the risks appear to be negligible. However, by looking at the distances to which SL-II could be exceeded, the risks of all transportation scenarios with wooden pallet fires would be low. Per Section D.4.5 of the 2011 Mercury Storage EIS, this would be true under all weather conditions (i.e., either by dry deposition or as a result of scavenging by rainfall).

## **B.7 References**

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- USGS (U.S. Geological Survey) 2021. “Unified Hazard Tool.” <https://earthquake.usgs.gov/hazards/interactive/>

**APPENDIX C**  
**COMMENT RESPONSE DOCUMENT**

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## Appendix C: Comment Response Document

### C.1 Introduction

#### *Draft EA Public Comment Period*

On July 8, 2022, DOE published a Notice of Availability (NOA) in the *Federal Register* (87 FR 40830) of the Draft Mercury Storage SEIS-II, inviting public comment during the 45-day public comment period and announcing two virtual public hearings. The Environmental Protection Agency (EPA) published an NOA on the same day, which officially began the comment period on the Draft SEIS-II (87 FR 40838). In response to a request from the public, DOE issued another *Federal Register* notice on August 12, 2022 (87 FR 49817), announcing a 15-day extension of the public comment period. The 60-day public comment period ended on September 6, 2022.

In addition to publishing the NOA in the *Federal Register*, DOE posted the Draft SEIS-II on the DOE NEPA website at <https://www.energy.gov/nepa/articles/doeeis-0423-s2-draft-supplemental-environmental-impact-statement>.

DOE held two internet-based (with telephone access) virtual public hearings to provide information about the Draft SEIS-II and to receive public comments. The virtual public hearings were held on August 2 and 4, 2022. Notice of the dates and times and information related to the virtual public hearings, including internet and telephone access details and instructions on how to participate, were included in DOE's NOA, made available on the DOE NEPA website ([www.energy.gov/nepa](http://www.energy.gov/nepa)) and DOE's elemental mercury program website, and sent to stakeholders.

In addition to the public hearings, the public was encouraged to provide comments via U.S. postal mail or electronically via email. DOE considered all comments received.

#### *Comment Documents Received*

Thirteen comment documents were received from individuals, interested groups, and Federal and state agencies during the 60-day public comment period. In addition, five commenters spoke at the virtual public hearings; two at the August 2<sup>nd</sup> hearing and three at the August 4<sup>th</sup> hearing. The transcripts of the public hearings are included as individual comment documents and the list of all commenters is provided in Table C-1.

#### *Comment Response Process*

DOE reviewed all comment documents received and delineated specific comments within the documents. Subject matter experts reviewed each comment and provided a written response for inclusion in this appendix. Where applicable, the comment responses identify the sections of this SEIS-II that DOE modified to address the comment.

**Table C-1 List of Commentors**

<b>Comment Document No.</b>	<b>Commentor</b>
1	Cosmo Zimmer
2	Harry Wilson, Nevada Gold Mines
3	James Williams, Environmental Technology Council
4	Suzanne Earls
5	Chris Wieland
6	Mark S. Watson, Oak Ridge City Manager
7	Ben Grumbles, Environmental Council of the States
8	Jay Gear, Coeur Mining, Inc.
9	Robert Houston, U.S. Environmental Protection Agency
10	Bryan Davison, Tennessee Department of Environment and Conservation
11	Doug Hansen, Utah Department of Environmental Quality
12	John Shaw, Roane County Environmental Review Board Chair
13	Nevada Gold Mines
14	Hearing Transcripts (August 2, 2022)
15	Hearing Transcripts (August 4, 2022)

## **C.2 Comments and DOE Responses**

The following pages contain reproduced comments from the 13 unique comment documents and hearing transcripts and the associated DOE responses to each of the delineated comments. The comment documents are numbered as provided in Table C-1, and then sequentially to delineate each comment within a comment document. The comment documents were generally numbered in the order in which they were received by DOE.

### ***Cosmo Zimmer***

#### **Comment 1-1:**

MEBA requires that the Secretary of Energy designate a facility of the Department of Energy for long term storage of elemental mercury. To find possible storage facilities, the headquarters of the Department basically queried the various DOE sites across the US whether there were any facilities suitable for long term storage of elemental mercury. Instead of asking this question of the DOE sites across the US, Headquarters might as well have simply asked, “Does anyone want to volunteer one of their buildings to store mercury?” In either case, the response was or would have been the same. “Not us!” Or perhaps, “It will take too long for us to do it.”

In doing this, the Secretary seems to have violated MEBA, because he/she allowed the designation that was his/her decision under the law, to effectively be vetoed by the career staff in the field. What should have happened, is that headquarters would have searched the list of excess facilities and identified the most promising, and then the Department would have screened them and developed plans to modify a specific facility to meet the storage requirements of MEBA. Then the Secretary could make a designation that Congress had expected would occur.

**Response:**

DOE utilized similar criteria as was applied during the preparation of the 2011 Mercury Storage EIS to identify potential DOE facilities that could serve as the designated facility for long-term management and storage of elemental mercury. Section 2.2.4 of this Mercury Storage SEIS-II identifies these criteria. DOE's Office of Environmental Management (EM) communicated with DOE programs and field offices to identify whether existing DOE facilities could meet these criteria and be considered as reasonable alternatives in this SEIS-II. DOE-EM received responses from DOE offices in Idaho, Nevada, Tennessee, and South Carolina, as well as DOE's Office of Legacy Management and the Portsmouth/Paducah Project Office. Each of these field offices and programs evaluated their existing facilities against the specified elemental mercury storage needs and established criteria. After communications with these offices and programs, DOE did not identify any existing facilities that could reasonably be used for this proposal without significant modification and RCRA permitting.

Additionally, with regard to using existing DOE-owned facilities as compared to an existing, permitted commercial facility, as identified in Section 2.2.4 of this SEIS-II, Federal Acquisition Regulations (FAR), which codify uniform policies for acquisition of supplies and services by Federal executive agencies, express the preference for Federal Government agencies, including DOE, to use commercial services and capabilities when available and determined to meet the mission needs. These sections of the FAR are derived from Title 41 USC 3307, the US code specifying the US government's "Preference for commercial products and commercial services."

**Comment 1-2:**

There are likely several excess facilities that would be able to store elemental mercury with a small amount of modification. Among the most obvious ones are the large buildings near Paducah KY and Piketon OH. These buildings were used in the enrichment of uranium and were among the largest buildings in the world when they were constructed. Enrichment was by the gaseous diffusion process which involved many stages to achieve the desired enrichment. These stages were housed in a portion of the building called a bay. While the size of the bay varies between the different buildings, a single bay could store a large quantity of mercury, easily 1000, 2000 Metric tons of mercury or more on just the first or ground floor. The gaseous diffusion equipment and piping is located above the first floor. If this equipment and piping needed to be removed in order that the storage facility met all the requirements for storage of elemental mercury, this removal would be covered by the Uranium Enrichment Decontamination and Decommissioning (D&D) Fund. These funds are identified as PBS PA-0040 and PO-0040 in the FY2022 budget request. During the 2016 Waste Management Symposia, it was mentioned that the D&D of the conversion facilities in Ohio was scheduled for completion in 2052. The facilities in Kentucky are scheduled for D&D completion even later. These dates should allow the storage of mercury without any

significant interference with the D&D program assuming a reasonable amount of planning and coordination occurred. If absolutely necessary, the D&D of the facilities used for elemental mercury storage could be delayed. That however would only occur with a total failure to develop an approved treatment and disposal method for the elemental mercury, in the much more than reasonable time available.

If the quantity of mercury that can be stored on the first floor is limited for any reason beyond the normal spacing requirements, such as weight limits for the on-grade slab floor, there would be room on the second floor after the piping and equipment were removed. The second floors have supported the very heavy loads of enrichment equipment and piping, so the weight of the mercury should not be an overriding concern with proper spacing, and the storage capacity may even be near the ground floor's capacity. Also, adjacent bays are available so that the potential capacity is not limited to a single bay.

While these enrichment facilities are very prominent (because of their size and notoriety) in their suitability for storing mercury, there are possibly other facilities that could also store mercury, perhaps some would be even more suitable.

**Response:**

Section 2.2.4 of this SEIS-II identifies a set of objective criteria that were used for the 2011 Mercury Storage EIS and the 2013 SEIS to evaluate whether existing DOE facilities should be considered as a reasonable alternative. Those criteria, as stated in this SEIS-II, are still applicable today. The DOE Office responsible for excess facilities at Paducah and Portsmouth is the Paducah Portsmouth Project Office (PPPO). In its response to the EM-1 query, the PPPO stated that, *“PPPO does not have any potential long-term storage facilities for elemental mercury. The Portsmouth and Paducah sites do not meet the minimum requirements. ... The regulators would more than likely not allow for mercury storage at Paducah due to the high water table across the site and there are seismic concerns. Also, the Paducah site cannot meet the first minimum requirement of Resource Conservation and Recovery Act permit capability within a year.”*

Excess facilities under PPPO jurisdiction have been taken out of operation and are in various phases of decommissioning – deactivation, dismantlement, and demolition. These facilities are not permitted for storage of hazardous materials, do not meet current building and life safety codes, and would require significant modifications to be suitable for elemental mercury storage at this point. The Portsmouth facilities are in the process of being dismantled and demolished under the DOE Order 413.3B structure, in accordance with congressionally-approved cost and schedule commitments. The Paducah facilities still contain hazardous and radiological contamination and will be undergoing deactivation for several more years (scheduled for completion in 2027) before they would be safe for repurposing, even if determined to be acceptable for long-term storage of elemental mercury.

As identified in Section 2.1.1, the EPA evaluation of a proposed approach for treatment and disposal of elemental mercury in the United States introduces uncertainty as to whether long-term storage could be needed for an extended period (as long as 40 years). This uncertainty affects not only the potential duration but also the potential inventory of mercury that would be generated

over a shorter period. Based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years.

Considering the immediate need and the storage duration uncertainty and that PPPO facilities are not permitted for storage of hazardous materials, do not meet current building and life safety codes, would require significant modifications, and could not begin the modification and permitting process earlier than 2027, these facilities were not considered reasonable alternatives for this Mercury Storage SEIS-II.

**Comment 1-3:**

From the Congressional record, including the hearings, it is clear that Congress initially considered a specific DOE building for the purpose of storing elemental mercury. Towards the end of the legislative process, Congress deemed it prudent to change that and allow the Secretary to select the most appropriate building, the best building. It is also clear that the Department overlooked obvious excess facilities that could be suitable, such that the Secretary has not complied with what Congress (and the President) intended the Secretary to do.

The NEPA analysis is not sufficient in that it does not adequately consider the action which Congress intended to happen. The method to find and/or eliminate Department of Energy facilities is highly flawed and totally improper, and probably illegal.

**Response:**

As identified in response to Comment 1-2, DOE applied a set of objective criteria to evaluate whether existing DOE-owned facilities could be considered reasonable alternatives for the long-term management and storage of elemental mercury. Additionally, DOE is not limited to only DOE-owned facilities. DOE revised Section 1.2 of this SEIS-II as follows:

*“MEBA further provides the Secretary of Energy with the authority to establish such terms, conditions, and procedures as are necessary to carry out this long-term management and storage function (42 U.S.C. § 6939f(f)). Although the phrase ‘facility or facilities of [DOE]’ is not defined in MEBA, DOE has a longstanding practice of leasing facilities to accomplish the Department’s core mission. For example, (1) the DOE Headquarters Building in Washington, DC (the James Forrestal Building) is government-owned by General Services Administration acting as the custodial agency for DOE, (2) DOE leases several facilities from UT-Battelle, LLC, at Oak Ridge National Laboratory, and (3) Lawrence Berkley Laboratory is privately owned and operated under contract for the benefit of DOE.*

*Consistent with that practice, DOE construes the term facility of DOE to include a facility leased from a commercial entity or another Federal agency, over which DOE provides an appropriate level of responsibility and control. Accordingly, if DOE were to designate a facility that currently is owned by a commercial entity or by another Federal agency, DOE would obtain a leasehold interest in that facility. DOE would also ensure that any such facility currently owned by a commercial entity or by another Federal agency would afford DOE an appropriate level of responsibility and control over the facility, including by exercising the authority*

*necessary to ensure that the facility is managed and operated in compliance with MEBA and other applicable legal requirements and through contractual provisions.”*

DOE compiled a paper addressing additional background information and support for its interpretation. The paper is included in the Administrative Record for this NEPA action. This paper would also be included in an Administrative Record for any designation decision.

See response to Comment 1-1 regarding the FAR and its statement that it is the preference for Federal Government agencies, including DOE, to use commercial services and capabilities when available and determined to meet the mission needs.

**Comment 1-4:**

PS. The so-called urgency mentioned in the summary on the first page of the webpage is puzzling. DOE is nearly a decade late compared to the dates in the legislation. And yet there is now “Urgency”, even though there never seemed to be any urgency for the past decade. Any program or project manager faced with a problem of not having a specific solution available “on time” would look for temporary or interim solutions. The issue of this so-called “urgency” can be met by storing the mercury in commercial storage facilities, or even a government owned TSDF, temporarily until the permanent or long-term solution becomes available.

**Response:**

As identified in Section 1.3 of this SEIS-II, DOE published its Record of Decision (ROD) (84 FR 66890; December 6, 2019) to designate the WCS site near Andrews, Texas, for the management and storage of up to 6,800 MT of elemental mercury and to manage and store the elemental mercury in leased portions of existing buildings—the Container Storage Building (CSB) and Bin Storage Unit 1—on the same WCS site. This decision would have allowed DOE to begin receipt of elemental mercury; however, the decision was challenged in a lawsuit and DOE withdrew that designation as part of a settlement. As a result, DOE has missed the deadline and needs to designate a facility as soon as practicable to comply with statutory obligations and minimize the elemental mercury accumulating at ore processor sites, as provided for in the *Chemical Safety Act of 2016*.

Additionally, there are uncertainties about the potential length of actual storage and management, as explained in Sections 2.1.1 and 2.1.2 of this SEIS-II. As identified in Section 2.1.1, the EPA evaluation of a proposed approach for treatment and disposal of elemental mercury in the United States introduces uncertainty as to whether long-term storage could be needed for an extended period (as long as 40 years). This uncertainty affects not only the potential duration but also the potential inventory of mercury that would be generated over a shorter period. Based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years. Therefore, as stated in DOE’s preferred alternative in Section 2.7, DOE prefers to designate one of the existing, permitted commercial storage facilities, which would allow DOE to store elemental mercury in accordance with MEBA as efficiently as possible (from a cost and time perspective) and still allow DOE to make other,

longer-term decisions, if the outlook for approval of a treatment and disposal method in the United States changes in the future.

### ***Nevada Gold Mines***

#### **Comment 2-1:**

I write on behalf of Nevada Gold Mines LLC (“NGM”) to request that DOE extend the commenting deadline - announced in the Federal Register on July 8, 2022 - for the Draft Supplemental Environmental Impact State [sic] for the Long-Term Management and Storage of Elemental Mercury. DOE has prescribed a 45-day period during which it will receive comments on the Draft EIS, ending on August 22, 2022. We are carefully reviewing the Draft EIS, and NGM intends to submit comments, but we are concerned that the allotted time is too short to allow a thorough review and commenting effort. As you know, there are over 300 pages of text, and more than 100 pages of appendices, that need to be reviewed. This does not include the 2011 EIS or the 2013 Supplemental EIS documents, which, while not the focus of this commenting effort, are also not irrelevant to it. Given our recent and ongoing discussions with DOE, NGM is well aware of DOE's need to work expeditiously to establish the long-term mercury storage facility. NGM also would like to see DOE accomplish this task as soon as possible. We do not want to prolong this process. With these time pressures in mind, we are asking only for an additional 45 days to complete our review and submit comments. That would make the commenting deadline October 6, 2022.

#### **Response:**

In response to a request to extend the public comment period, DOE issued a second *Federal Register* notice on August 12, 2022 (87 FR 49817), announcing a 15-day extension of the public comment period. The 60-day public comment period ended on September 6, 2022.

### ***Environmental Technology Council (ETC)***

#### **Comment 3-1:**

ETC supports the efforts being taken by DOE. The agency’s Draft Supplemental EIS notes that the specific requirements for a DOE mercury storage facility are based on RCRA requirements and will be included in the procurement and contractual documents associated with the designated facility or facilities. As the national trade association representing companies that own and operate RCRA-regulated treatment, storage and disposal facilities, ETC supports DOE’s efforts to ensure the selected facility is RCRA compliant. Such facilities are regulated and inspected by EPA and meet the highest standards in terms of safety and security. For example:

- RCRA regulated TSDFs are required to have proper spill containment features and emergency response procedures;
- Fully enclosed weather-protected buildings(s);
- Reinforced concrete floors able to withstand heavy structural loads;
- Ventilated storage and handling areas;
- Fire suppression systems; and

- Security and access controls.

In short, RCRA has resulted in an infrastructure of regulated facilities that are designed and operated for the specific purpose of properly storing and disposing toxic chemical waste. Given that exposure to mercury can damage the nervous system, kidneys, liver and immune system, it is imperative that DOE act quickly to finalize a designated facility and subsequently move forward with establishing terms, conditions, and procedures (e.g., storage fee) that are necessary to carry out the agency's long-term management and storage function. Finally, ETC understands that the agency may be considering lowering the purity level for mercury storage below the current level of 99.5%. If so, what is the agency's rationale for doing so since the mercury will eventually be disposed.

**Response:**

DOE acknowledges the commenter's support for the proposal. With regard to the question involving "purity," DOE has revised its Interim Guidance as described in Section 2.1.4 of this SEIS-II (2023 Interim Guidance). The revised guidance does not require any DOE-specified minimum percent by volume for elemental mercury accepted for long-term storage at the DOE-designated facility. Rather, it focuses on applicable RCRA regulations and U.S. Department of Transportation (DOT) regulations related to treatment standards and compatibility of the waste with the containers to ensure that the integrity is not compromised, which meets the original intent of the 99.5 percent by volume acceptance criteria for reliable long-term storage.

Additionally, as described in Section 2.1.4 of this SEIS-II, the draft revision to the 2023 Interim Guidance was published for public review in May 2023. A Notice of Availability for the Final Interim Guidance was published in the *Federal Register* on September 20, 2023 (88 FR 64897).

***Suzanne Earls***

**Comment 4-1:**

This area is still impacted by historical pollution of mercury in watersheds in all Roane county and ORR. For this reason I object to a new storage site [Perma-Fix DSSI] along HWY 58.

**Response:**

The Perma-Fix DSSI facility in Roane County, Tennessee, is currently permitted to store hazardous waste, including elemental mercury, in this facility. As such, it is not a "new storage site," and potential impacts to the local watersheds from storage of hazardous waste in the Container Storage Building Unit (CSBU) were analyzed during the DSSI permitting process (Permit TNHW-150) with the Tennessee Department of Environment and Conservation (TDEC). The mercury containers would not be routinely opened at the storage facility, and release of mercury to the environment would be highly unlikely; no impacts to groundwater or surface water would be expected. The facility is designed to contain any mercury that could be inadvertently released from the containers and prevent its release to the environment. Prior to designation of a site for long-term management and storage of elemental mercury, DOE would consult and confirm with the permitting authority (in the case of DSSI, TDEC), that the site is appropriately permitted.

*Chris Wieland*

**Comment 5-1:**

Congress passed the Mercury Export Ban Act (MEBA) in 2008 to severely limit the export of mercury from the U.S. and to require that the mercury held by the federal government be placed in a single facility for long-term storage. Senator Lamar Alexander objected (Senate Report 110-477, pp. 15-16) to that facility being located on the Oak Ridge Reservation (ORR) for several reasons, including that Oak Ridge and East Tennessee are still dealing with the clean-up of mercury releases from historic operations. As a result, the MEBA specifically states that the mercury storage facility shall not be located on the ORR. Sen. Alexander's reasons are just as valid today as they were in 2008. The original Environmental Impact Statement (EIS; DOE/EIS-0423, 2011) for this project did not include any sites in Tennessee. The Supplemental EIS (DOE/EIS-0423/S2D) currently under public review includes the Perma-Fix/DSSI facility on Route 58 in Kingston, TN and another facility in Greenbrier, TN. While inclusion of these sites obeys the letter of the law, consideration of the Kingston site clearly violates the law's spirit, since it is less than 3.5 miles from the ORR boundary. The Kingston site is within the watersheds already contaminated by Y-12 mercury and Tennessee Valley Authority coal ash, so any new releases would add to the already substantial burden of pollution in our local streams, reservoirs, and groundwater. The risks of environmental release during transportation, transfers, re-packaging, and long-term storage (perhaps for many decades), are simply too great and far out-weigh any benefits from short- and long-term employment or increased tax revenue.

**Response:**

DOE acknowledges the commentor's concern and preference that DOE not select either of the two sites in Tennessee.

The Perma-Fix DSSI facility is currently permitted with TDEC to store hazardous waste, including elemental mercury. The mercury containers would not be routinely opened at the storage facility, and release of mercury to the environment would be highly unlikely; no impacts to groundwater or surface water would be expected. The facility is designed to contain any mercury that could be inadvertently released from the containers and prevent the release to the environment.

**Comment 5-2:**

The Perma-Fix/DSSI facility received a notice of violation in 2021 for several issues related to the storage and processing of hazardous wastes. While these issues were relatively minor, they are suggestive of failures in management and operation that have the potential to impact mercury storage.

**Response:**

TDEC manages permittee compliance with permit conditions for hazardous waste storage and processing facilities in Tennessee. DOE would consult and confirm with the permitting authority, (in this case, TDEC), that the site is appropriately permitted for long-term management and storage of elemental mercury.

**Comment 5-3**

The fate and transport of mercury in the environment is still not well understood. Mercury has a contact angle with minerals that ranges from about 136° to about 158° (see USGS Open-File Report 90-409) and behaves as a non-wetting, self-cohesive substance in the geologic environment. It therefore does not interact physically or chemically with most minerals. It is known to fragment and disseminate through granular media as small spheroids. This makes recovery and/or in situ treatments of released mercury difficult or impossible. This problem is compounded in the low-permeability clay soils prevalent in East Tennessee. Thus, any releases would effectively permanently damage the soil-rock-groundwater system.

**Response:**

The potential for release of mercury to the environment would be via opening the containers, processing mercury, or failure of the storage container. The mercury containers would not be routinely opened at the storage facility, and there would be no mercury processing under DOE's Proposed Action. Containers would be verified to comply with DOT and RCRA requirements as described in the 2023 Interim Guidance, Section 2.2.3.2 (see Section 2.1.4 of this SEIS-II), and storage operators would verify container integrity upon receipt. Therefore, release of mercury to the environment at or near the storage site would be highly unlikely. As reported in Section 2.9.3 of this SEIS-II, no impacts to groundwater or surface water would be expected. All alternative sites are (or would be in the case of HWAD) permitted for hazardous waste storage and would have engineered barriers designed for complete containment such as spill pallets and/or berms and sealed floors in storage building(s) to prevent releases of mercury from the storage area. DOE expects that storage facility operators would adhere to their established procedures and safeguards for proper management and handling of elemental mercury, facility maintenance, and spill prevention and response, as promulgated by their respective regulators. Appropriate regulatory requirements and best management practices for material storage and handling, including inspections of mercury storage locations and mercury vapor monitoring, would be expected to be adhered to.

**Comment 5-4:**

Mercury is not, in elemental form, particularly dangerous to human health, except via the inhalation pathway. However, when released to a humid, water-rich environment, such as is present in East Tennessee soils, bedrock, streams, and lakes, mercury is bacterially methylated. Methylmercury is easily metabolized by higher organisms, and concentrates upward in the food chain. For this reason, there are no sites in the humid eastern United States, including particularly Tennessee, that are suitable for a mercury storage facility. To mitigate these risks, only those sites that are in rural, arid areas with no permanent surface water and small local populations should be considered. Such areas also tend to be economically disadvantaged, and the employment offered by the mercury storage facility would likely be welcomed.

**Response:**

The Perma-Fix DSSI facility is currently permitted with TDEC to store hazardous waste, including elemental mercury. See response to Comment 5-3 relative to the potential impacts from release of

mercury from a DOE-designated storage facility. Section 2.9.10 of the Mercury SEIS-II discusses ecological risk, including from a transportation accident. Alternative-specific discussions of ecological risk, including in Section 4.2.10.1, discuss the ecological risk from a spill of elemental mercury into waterbodies. To summarize, consequences and risks to ecological receptors would be low to negligible to all ecological receptors except in the case of a fire.

The reason risks to ecological receptors from methylmercury are estimated to be low to negligible (only one estimate of moderate risk) is because a specific set of events and conditions would have to occur concurrently to make elemental mercury available for conversion to methylmercury. For instance, if there were a transportation accident, the accident would have to occur near a waterbody, and a mercury container would have to be breached for a spill to occur. The risk would increase slightly if a fire also occurred during the accident. If it was also raining at the time of the accident, deposition of mercury vapors would also increase. In addition, the 2011 Mercury Storage EIS conservatively estimated that 20 percent of the elemental mercury would be converted to inorganic mercury, which could then be available for deposition and possible conversion to methylmercury. Section 4.2.10.1 of this SEIS-II discusses these scenarios and provides tabular summaries of the potential exposures to ecological receptors and the estimated risk to different trophic levels in the food chain. Once elemental mercury is stored at the designated site, the probability that it would become available to ecological receptors is insignificant.

Additionally, any designated facility would be permitted by the host state (i.e., TDEC). Engineered controls and operational procedures are routinely and successfully used to safely manage hazardous materials throughout the referenced region of the United States. Other factors would also be considered in selecting the location or location(s) for long-term management and storage of elemental mercury.

**Comment 5-5:**

The mercury storage facility should be a new, purpose-built facility that is designed with the peculiar physical and chemical characteristics of mercury as part of the design criteria. The Perma-Fix/DSSI facility is an existing building with a curbed storage area that is coated with epoxy, which has good resistance to mercury. However, the floor and curbs may have cracks or other avenues, such as drains, that may allow spilled mercury to exit containment, and for this reason, should not be considered for use. Further, the SEIS indicates that up to 1200 metric tons of mercury may be stored in the existing facility. This may exceed the design loading for that floor. The proposed CBSU expansion may meet storage criteria, but a design is not provided.

**Response:**

As detailed in Section 2.7 of this SEIS-II, DOE's preference is to designate an existing, permitted facility for long-term management and storage of elemental mercury. The specific requirements for the DOE mercury storage facility are based on RCRA requirements and are identified in the documents associated with the ongoing procurement process. For instance, the Performance Work Statement (PWS) in the Request for Proposal for Elemental Mercury Long-Term Management and Storage states, *"Any facility to be used in performance of this contract for the long-term management and storage of elemental mercury shall comply with applicable procedures, standards and criteria and requirements of the RCRA [42 U.S.C. 6901 et seq]."*

Additionally, the PWS states, “*The Contractor shall conduct waste acceptance operations, as necessary, to ensure proper handling, storage, or disposal in accordance with 40 CFR Parts 264/265 and any additional requirements imposed by state regulators and the Storage Facility permit.*”

Finally, the PWS affirms that, “...*DOE construes the term ‘facility of DOE’ to include a facility leased from a commercial entity over which the Department provides an appropriate level of oversight and guidance.*” As such, the designated facility would be demonstrated to be adequate prior to the storage of elemental mercury.

The weight storage capacity of the Perma-Fix DSSI facility was based on a slab loading analysis by a State of Tennessee registered engineer (March 16, 2021). The slab loading analysis is included in the citation in Section 2.3.4 (i.e., Perma-Fix DSSI 2021). As noted above, any designated facility would be permitted by the host state (i.e., TDEC), and this permitting would evaluate the adequacy of the facility for the intended inventory.

**Comment 5-6:**

Because of the physical and chemical characteristics of mercury, the minimum Resource Conservation and Recovery Act design requirements for hazardous waste storage facilities are not entirely inadequate (*sic*). Multiple interior and exterior barriers to mercury release should be included in the design. Elemental sulfur combines with elemental mercury to form the stable mineral cinnabar, and sulfur should be incorporated into the storage building’s subgrade to act as a reactant to tie up mercury should there be a release.

**Response:**

See responses to Comments 5-3 and 5-5. Elemental mercury managed under the authority of MEBA is a hazardous waste and subject to RCRA regulations. The existing regulatory framework for management of hazardous wastes, including packaging, transportation, and storage, as described in 40 CFR Parts 260–270, establishes the necessary standards for safe management of elemental mercury. Further, implementation of requirements by regulators for issuing and maintaining operating permits for any hazardous waste treatment, storage, and disposal facilities (TSDFs), in accordance with 40 CFR Parts 260–270, ensures that appropriate site-specific procedures are established to ensure worker and environmental safety. As identified in Section 2.1.4 of this SEIS-II, DOE has recently revised the Interim Guidance related to the long-term mercury storage facility. The 2023 guidance document cites the key existing regulations that are germane to long-term and short-term storage scenarios for elemental mercury.

Considering that the reasonable alternatives that DOE is considering in this SEIS-II are existing facilities, incorporation of cinnabar into the subgrade of the facility would not be practicable in this instance.

**Comment 5-7:**

A national elemental mercury repository is a necessary step in managing mercury and reducing risks to the environment. To achieve this, it must have a robust design, be constructed to tight tolerances and quality control/assurance, and be operated well in order to be effective. The storage

facility must be owned by the federal government to ensure long-term control. DOE or other federal agency must retain ultimate responsibility over, and oversight of, any private firm contracted to operate the facility.

**Response:**

MEBA does not require that the storage facility be “owned by the Federal Government,” as discussed in the response to Comment 1-3. DOE has identified its position relative to “facility or facilities of DOE” in Section 1.2 of this SEIS-II and has prepared additional supporting papers that are included in the Administrative Record for this NEPA action as well as any future designation decision.

DOE revised Section 1.2 of this SEIS-II as follows:

*“MEBA further provides the Secretary of Energy with the authority to establish such terms, conditions, and procedures as are necessary to carry out this long-term management and storage function (42 U.S.C. § 6939f(f)). Although the phrase “facility or facilities of [DOE]” is not defined in MEBA, DOE has a longstanding practice of leasing facilities to accomplish the Department’s core mission. For example, (1) the DOE Headquarters Building in Washington, DC (the James Forrestal Building), is government-owned by General Services Administration acting as the custodial agency for DOE, (2) DOE leases several facilities from UT-Battelle, LLC, at Oak Ridge National Laboratory, and (3) Lawrence Berkley Laboratory is privately owned and operated under contract for the benefit of DOE.*

*Consistent with that practice, DOE construes the term facility of DOE to include a facility leased from a commercial entity or another Federal agency, over which DOE provides an appropriate level of responsibility and control. Accordingly, if DOE were to designate a facility that currently is owned by a commercial entity or by another Federal agency, DOE would obtain a leasehold interest in that facility. DOE would also ensure that any such facility currently owned by a commercial entity or by another Federal agency would afford DOE an appropriate level of responsibility and control over the facility.”*

Elemental mercury managed under the authority of MEBA is a hazardous waste and subject to RCRA regulations. The existing regulatory framework for management of hazardous wastes, including packaging, transportation, and storage, as described in 40 CFR Parts 260–270, establishes the necessary standards for safe management of elemental mercury. Further, implementation of requirements by regulators for issuing and maintaining operating permits for any hazardous waste TSDFs, in accordance with 40 CFR Parts 260–270, ensures that appropriate site-specific procedures are established to ensure worker and environmental safety. As identified in Section 2.1.4 of this SEIS-II, DOE has recently revised the Interim Guidance related to the long-term mercury storage facility. The 2023 Interim Guidance document cites the key existing regulations that are germane to long-term and short-term storage scenarios for elemental mercury.

***Oak Ridge City Manager***

**Comment 6-1:**

The City of Oak Ridge (the City) does not support the designation of the facility in Kingston, Tennessee for short- term or long-term management and storage of elemental mercury for a variety of public health, safety, environmental and socioeconomic reasons.

**Response:**

DOE acknowledges the commenter’s preference for not designating the DSSI facility.

**Comment 6-2:**

Previously, Congress passed The Mercury Export Ban Act of 2008 (Public Law 110-414) that directs DOE to designate a facility (or facilities) for the long-term management and storage of elemental mercury generated within the United States. The law also authorized DOE to assess and collect a fee at the time of mercury delivery to the storage facility. It would cover certain costs of long-term management and storage. Section 5 of the law specifically prohibited "the Y-12 National Security Complex or any other portion or facility of the Oak Ridge Reservation of the Department of Energy (located in the city limits of Oak Ridge), for the purpose of long-term management and storage of elemental mercury generated within the United States.

Since 2011, DOE has prepared several analyses pursuant to the National Environmental Policy Act (NEPA), including the subject document. In 2019 DOE chose the licensed Waste Control Specialists facility in Texas as the preferred location for this storage activity. However, DOE withdrew that designation in June 2021 as part of a settlement with two domestic generators of elemental mercury that filed complaints in U.S. District Court. The optimal location of this selection away from the population centers has now been removed and this alternative SEIS is being “rushed” to a conclusion.

**Response:**

While DOE acknowledges a preference for designating a long-term storage facility as soon as reasonably practicable, neither the analysis nor the selection process is being rushed. There were eight alternative locations considered in the Draft SEIS-II, several of which are in areas with low population density. All of the alternatives would be required to be permitted by the host state prior to accepting elemental mercury for long-term management and storage.

**Comment 6-3:**

DOE’s proposed alternatives in the draft SEIS fail to sufficiently account for the impacts to local communities from their siting recommendation. DOE’s draft SEIS appears to be following the outdated 2020 NEPA requirements that permitted federal agencies to base the purpose and need of their proposed actions on the goals of the applicant and the agency’s authority. Based on the May 20, 2022, adoption of revised NEPA regulations, the City of Oak Ridge does not consider the draft SEIS report to fully comply with new requirements to assess the direct and indirect effects,

and cumulative impacts of the proposed actions from the transportation and storage of mercury hazardous waste at the Kingston, TN facility.

**Response:**

This SEIS-II is fully compliant with the CEQ’s NEPA regulations and includes an evaluation of the direct and indirect impacts and cumulative effects of the Proposed Action, No-Action Alternative, and reasonable alternatives. From a socioeconomic viewpoint, the potential impacts to the community surrounding the DSSI facility are discussed in Section 4.6.10 of this SEIS-II. Specifically:

*“There would be negligible impacts on socioeconomic conditions, including overall employment, population trends, available housing, and other community services in the region of influence (ROI) (Roane County), under the Proposed Action.”*

This is primarily due to the limited number of additional personnel that would be required to operate the facility. Other potential impacts to the ROI around the DSSI facility are presented in Sections 4.6.1–4.6.12.

Section 2.9.13 summarizes the cumulative impacts analysis for the eight action alternatives:

*“Chapter 4 of this SEIS-II evaluates reasonably foreseeable environmental trends and planned actions within the regions of influence for each of the alternative sites. Considering the negligible-to-low potential impacts of the Proposed Action, the potential contribution of the Proposed Action to the cumulative impacts to the region were shown to be negligible.”*

Sections in Chapter 3 for each alternative site describe the respective reasonably foreseeable environmental trends and planned actions that could have cumulative impacts with those identified for the Proposed Action (i.e., Section 3.x.12, where “x” is the section number corresponding to the alternative site).

**Comment 6-4:**

Because the DOE has not accounted for the impacts a decision to store mercury waste at the Kingston, TN facility will have on the communities of Oak Ridge, Kingston, TN and Roane County, a significant number of impacts must be evaluated. These include the costs associated with providing additional public safety emergency response and mutual aid services among Oak Ridge, Kingston, and Roane County. The DOE appears to be using a “used” building that does not meet adopted 2022 building, fire, and life safety codes for the storage of critical hazardous material. The proposed site is also adjacent to the Michael Dunn Center, a support center for individuals living with disabilities, including physical and occupational therapy services.

**Response:**

The existing DSSI facility is currently permitted by TDEC to treat and store hazardous wastes. As such, DOE does not anticipate any significant additional requirements or costs associated with

public safety or mutual aid services that are not already available for the existing, permitted facility, although DOE could possibly be designated as co-permittee in conjunction with the current permittee. The existing facility (and CSB Expansion, if utilized) would be verified to meet TDEC permit conditions prior to use as a facility for long-term management and storage of elemental mercury. In addition, DOE does not anticipate increased impacts beyond those considered as part of the RCRA permitting process, including those related to the Michael Dunn Center.

**Comment 6-5:**

The transportation of elemental mercury near residential areas also has not been examined, with the proposed facility being in close proximity to the city limits of Oak Ridge, while fully residing in the city limits of Kingston. The draft SEIS mistakenly states the proposed Kingston facility is 10 miles from Oak Ridge; the accurate distance is approximately 2.4 miles from the Oak Ridge City limits. Cumulative impacts should assess the environmental investigatory data for this area, which clearly demonstrates a nexus between the current and historical U.S. DOE operations at the Oak Ridge Reservation and the environmental damages posed to Oak Ridge, Kingston, Roane, and Anderson counties and to the Lower Watts Bar ecosystem.

**Response:**

Transportation of elemental mercury was evaluated in the 2011 Mercury Storage EIS and included an evaluation of potential impacts that considered both urban and suburban population densities. In many instances, the 2011 transportation evaluation in Appendix D of the 2011 Mercury Storage EIS has been incorporated by reference into this SEIS-II.

Specifically, Section D.2.9 in Appendix D of the 2011 Mercury Storage EIS states, *“The consequences of a mercury release are in principle related to the affected population around the point of release. Urban and suburban areas may have populations exceeding 3,226 people per square mile, whereas rural areas typically have a population density of 139 people or fewer per square mile. According to the 2020 Census, the census tract that includes Kingston has a population density of less than 400 people per square mile. In general, an average of 30 percent of the miles traveled in the eastern United States would be within urban or suburban areas, with the remaining 70 percent in less-populated rural areas. For travel in the western United States, the rural road mileage would increase to 92 percent, with only 8 percent of the mileage in urban or suburban areas. Note, however, that this EIS does not account for population densities. The estimated risks to members of the public from inhalation of mercury are essentially individual risks, expressed as the predicted frequency with which an individual would be exposed to concentrations above AEGL-3, AEGL-2, or PAC-1/TEEL-0 (see Table D-3). For all pathways via dry or wet deposition, the calculated risk is essentially the predicted frequency at which, somewhere along the transportation route, deposited levels of mercury exceed screening values tied to human or ecological receptor ingestion. Again, this measure of risk does not rely on knowledge of the population of human or ecological receptors within or near the contaminated areas.”*

DOE has modified Section 2.3.4 to indicate that the Perma-Fix DSSI site is within 2.4 miles of the Oak Ridge city limits. The distance change did not affect the analysis or characterization of

potential impacts. Section 3.5.3.1 describes the affected environment for water resources in the ROI for the Perma-Fix DSSI site. This section has been updated to include the historical contamination in the Clinch River, Poplar Creek, and the Lower Watts Bar Reservoir.

**Comment 6-6:**

Adverse socioeconomic impacts associated with a DOE decision to store mercury waste at the Kingston, TN facility would be difficult to mitigate. The Kingston facility location will not serve as an inducement for people to move to this part of the state. Oak Ridge has documented the negative impact to economic development and population growth from being a “host city” to low-level nuclear waste landfills and a legacy of contamination release to the Lower Watts Bar Watershed. While it may be that waste management protocols at the Kingston facility will not result in a mercury release, should such occur, the impact will add to the existing poor condition or represent a “cumulative” impact to the environment which already has a fish consumption advisory in place for the Clinch River, Poplar Creek, and the Lower Watts Bar Reservoir.

**Response:**

The DSSI facility is currently permitted to treat and store hazardous waste, including elemental mercury, by TDEC. Under the Proposed Action, DOE would utilize an existing, permitted facility to provide long-term management and storage of elemental mercury until such time as a treatment and disposal option is approved by the EPA and available for receipt of elemental mercury. A low-level nuclear waste landfill is not an appropriate analogy for this Proposed Action primarily because the mercury is not being considered for disposal at this location. As reported in Section 4.6.10 of this SEIS-II, there would be negligible impacts on socioeconomic conditions, including overall employment, population trends, available housing, and other community services in the ROI (i.e., Roane County), under the Proposed Action.

The potential for release of mercury to the environment would be via opening the containers, processing mercury, or failure of the storage container. The mercury containers would not be routinely opened at the storage facility, and there would be no mercury processing under DOE’s Proposed Action. Containers would be verified to comply with DOT and RCRA requirements as described in the 2023 Interim Guidance, Section 2.2.3.2 (see Section 2.1.4 of this SEIS-II), and storage operators would verify container integrity upon receipt. Therefore, release of mercury to the environment would be highly unlikely. DOE expects to and will, as a leaseholder and potential co-permittee, ensure that storage facility operators comply with their permits and adhere to their established procedures and safeguards for proper management and handling of elemental mercury, facility maintenance, and spill prevention and response. There is no reason to presuppose that a release of mercury to the environment from this TDEC-permitted facility would contribute to previous contamination of nearby surface waterbodies and bottom sediments. Sections 3.5.3.1, 3.5.12, 4.6.3.1, and 4.6.12 of this SEIS-II have been revised to acknowledge ongoing fish consumption advisories and dredging restrictions in Lower Watts Bar Reservoir, the Clinch River, and Poplar Creek resulting from past contamination from Oak Ridge Reservation activities.

**Comment 6-7:**

The proposed action is premature. According to the draft SEIS, there still is no EPA-approved treatment method for nonradioactive mercury for eventual disposal in the United States; however, US Ecology has petitioned the EPA for a site-specific Determination of Equivalent Treatment for its permitted disposal facility. The EPA has posted a notice on its website that acknowledges its review of US Ecology's request for a site-specific variance for a new Land Disposal Restriction treatment technology that stabilizes elemental mercury for disposal. According to the notice, upon completion of its review, EPA will post a public notice in the Federal Register of its intent to approve or deny the petition and to solicit public comment. If approved, EPA would propose revisions to the regulations. The treatment technology described in US Ecology's variance request could offer a permanent disposal solution for elemental mercury in the United States. The EPA estimates that its draft Notice of Proposed Rulemaking to revise the regulations might be issued by November 2022. Thus, DOE should postpone any decision related to this draft SEIS until a final determination is made by EPA regarding the US Ecology petition.

**Response:**

MEBA directs DOE to provide for long-term management and storage of elemental mercury. As reported in Section 2.1.1, DOE recognizes that efforts are ongoing by EPA that may result in approval of a treatment and disposal variance, which could reduce the storage durations and quantity at a DOE long-term management and storage facility. Based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years. However, even if the EPA took action immediately, it would not relieve DOE's responsibility under MEBA to provide a location for long-term management and storage. This assumption is based, in part, on DOE's interpretation of "management" to include treatment and disposal. This interpretation is based on 42 U.S.C. §§ 6903(7) and (33), which state:

42 U.S.C. § 6903 (7) – The term "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

42 U.S.C. § 6903 (33) – The term "storage," when used in connection with hazardous waste, means the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste.

As identified in Section 2.1.1, treatment and disposal is an element of DOE's Proposed Action, however, analysis of the specific impacts of treatment and disposal are speculative until EPA approval. Section 2.1.1 also acknowledges that once a treatment method for mercury is approved and potential location(s) for land disposal are identified, DOE would evaluate, as appropriate, treatment and disposal actions related to elemental mercury stored in the DOE-designated facility under a separate NEPA review. DOE has a duty to designate a facility for long-term management and storage and this mandate is independent of EPA's pending action.

In response to public comments on the Draft SEIS-II, DOE has added another sensitivity analysis in Section 2.10 to provide a qualitative assessment of the potential impacts that would be expected

for post-storage management of the elemental mercury, which would include such actions as transportation, treatment, and disposal.

**Comment 6-8:**

The regulatory framework appears to be dated and incomplete. According to the draft SEIS, Interim Guidance, was prepared in 2009, is primarily based on laws, regulations, and DOE Orders and Standards, but also includes best management practices and other desired conditions and features. It further states that DOE is “considering updates” to the 2009 Interim Guidance, but does not state what updates are needed. It further states that specific requirements for a DOE mercury storage facility are based on RCRA requirements and will be included in the procurement and contractual documents associated with the designated facility(ies). Similarly, the waste acceptance criteria for the facility designated for long-term management and storage of elemental mercury would be specific to the facility designated and would be determined by the state regulator.

**Response:**

As identified in Section 2.1.4 of this SEIS-II, DOE has recently revised the guidance related to the long-term elemental mercury storage facility. The 2023 Interim Guidance document cites the key existing regulations that are germane to long-term and short-term storage scenarios for elemental mercury. Specific details about the revisions to the 2023 Interim Guidance are provided in Section 2.1.4.

The specific details of the waste acceptance criteria would be dependent on the state regulator and therefore, if applicable, could be included in final permit documents.

**Comment 6-9:**

S.3.1 on Land Use and Ownership does not explain the financial impacts a proposed leasehold interest by DOE in a commercial facility selected under this draft SEIS would have on the affected local governments (City of Kingston and Roane County) that would otherwise receive property tax from such facility. According to the draft SEIS “if DOE were to designate a commercial facility for the Proposed Action, DOE would obtain an appropriate leasehold interest in that facility to comply with the Mercury Export Ban Act.” Recent challenges by private providers of DOE services have questioned their taxable status through governmental ownership. Said claims are unresolved in Tennessee and must be clarified. DOE would ensure that any long-term lease agreement would afford DOE an appropriate level of responsibility and control over the facility.” DOE estimates that a lease agreement for an existing commercial facility could be completed within about six months, but in the case of the proposed Kingston facility, what would the impacts be to city and county real property and personal property taxes currently levied?

**Response:**

This SEIS-II evaluates potential socioeconomic impacts to the ROI in Roane County, Tennessee in Section 4.6.10. The socioeconomic impacts are driven primarily by the change in the number of workers required to implement the Proposed Action.

DOE does not anticipate any impact to the city and county real property and personal property taxes currently levied, as it will not have ownership of the facility property.

**Comment 6-10:**

According to the draft SEIS, the operation of a mercury storage facility would be expected to generate hazardous waste that is commensurate with the amount of mercury stored at the facility. The estimate of hazardous waste generation in the draft SEIS was based on the analysis in the 2011 Mercury Storage EIS, which assumed some degree of repackaging of potential leaking containers. Where would this additional mercury-contaminated waste be disposed? Would DOE ship it to the ORR for disposal, which would violate the terms of MEBA and expand transportation and disposal of out-of-state waste into DOE or other Tennessee landfills?

**Response:**

The estimate of hazardous waste presented in the Draft SEIS-II is extremely conservative since limited, if any, mercury containers would require opening at the facility. If repackaging were required, some of the incidental waste could be contaminated with elemental mercury and may require treatment, in accordance with the applicable Land Disposal Restrictions and related treatment standards described in 40 CFR Part 268. If the waste is determined to be “high mercury” (i.e., greater than 260 milligram per kilogram total mercury) retorting would be required to remove the mercury. The elemental mercury removed from the incidental wastes generated during the course of managing the elemental mercury stored at the DOE-designated facility would be expected to be returned to the DOE-designated facility for storage. The treated residual waste, as well as all other waste streams generated, would have disposal paths under current regulatory authority and using existing commercial disposal facilities. There is no expectation that these incidental wastes would be disposed of at the Oak Ridge site. Sections in Chapter 4 related to waste management for each alternative site have been revised to indicate the conservative nature of these assumptions (i.e., Section 4.x.8, where “x” is the section number corresponding to the alternative site).

**Comment 6-11:**

The No-Action Alternative is Not Acceptable:

According to the US DOE, “more than 20 million pounds of mercury were used at the Y-12 complex during the 1950s and early 1960s to process lithium. Approximately 700,000 pounds of mercury are suspected to have been released in the buildings and surrounding environment.”<sup>1</sup> Former U.S. Senator Lamar Alexander strongly opposed the long-term storage of elemental mercury in Oak Ridge and was instrumental in securing the language in the Mercury Export Ban Act of 2008 prohibiting Y-12 from serving as a long-term storage site.

<sup>1</sup> Mercury Treatment Facility at the Y-12 National Security Complex

**Response:**

An evaluation of the No-Action Alternative is a requirement of NEPA. The No-Action Alternative would not be preferable for several reasons. For example, as noted in Section 2.5 of this SEIS-II, *“The No-Action Alternative would not comply with the MEBA legislative requirements.”*

As noted in Table 2-1 in Section 2.1.2 of this SEIS, the elemental mercury currently stored at Y-12 has not been identified as waste by NNSA; however, for purposes of a complete/conservative analysis, this SEIS-II assumes it would eventually be managed as waste—although some or all of this inventory could remain a commodity depending on NNSA mission needs. As identified in Section 2.7, DOE’s preferred alternative would be to select one or more commercial facilities for the long-term management and storage of elemental mercury. If DOE selects an action alternative (as opposed to the No-Action Alternative), and if the NNSA mercury were determined to be waste, it could be included in the elemental mercury to be managed and stored at the DOE-designated facility.

**Comment 6-12:**

DOE has correctly asserted in the Draft EIS that the Department is “required by CEQ NEPA regulations (40 CFR Parts 1500–1508) and the DOE NEPA implementing procedures (10 CFR Part 1021), the Mercury Storage SEIS-II to include a No-Action Alternative as a basis for comparison to the Proposed Action. Under the No-Action Alternative evaluated in the SEIS-II, DOE would not designate a facility (or facilities) for the long-term management and storage of mercury. Elemental mercury would continue to be generated from other sources, primarily the gold-mining industry and, to a lesser extent, waste reclamation and recycling facilities.”<sup>2</sup>

<sup>2</sup> Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S2D) (Mercury Storage SEIS-II). DOE/EIS-0423-S2D. June 2022

**Response:**

DOE concurs with this assessment.

**Comment 6-13:**

The City of Oak Ridge does not support a No-Action Alternative for the storage of mercury waste at current sites. This alternative would result in some or all the 1,206 metric tons of mercury that are currently stored at the Y-12 National Security Complex remaining. In addition, the 2021 US DOE Record of Decision - Onsite Disposal Alternative - Environmental Management Disposal Facility - Site 7c - Central Bear Creek Valley, stated that “all recovered elemental mercury will not be disposed in any Oak Ridge landfill and will eventually be shipped off-site, subject to availability of a disposition pathway. All mercury hazardous waste as determined under RCRA (waste code D009, as determined by the method specified in 40 CFR § 261.24.) will be shipped off-site for treatment and disposal. The wastewater discharge limits for mercury will be 51 nanograms/liter (ng/L) which is also parts per trillion (ppt) as a monthly average concentration (numeric recreational water quality criteria) and 1400 ng/L (ppt) maximum daily limit (numeric fish and aquatic life water quality criteria).”<sup>3</sup>

<sup>3</sup> Record of Decision for Comprehensive Environmental Response, Compensation, and Liability Act Oak Ridge Reservation Waste Disposal at the Environmental Management Disposal Facility, Oak Ridge, Tennessee, DOE/OR/01-2794&D1. 6/22/2021

**Response:**

See response to Comment 6-11 regarding the No-Action Alternative. In June 2021, DOE issued a Record of Decision (ROD) under the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) for waste disposal at the Environmental Management Disposal Facility at the Oak Ridge Reservation. As acknowledged in that ROD, mercury is a contaminant in some of the waste streams at the Y-12 facility, which is undergoing remediation. This waste mercury would not be disposed of onsite in Oak Ridge and would be sent to offsite, permitted facilities for treatment and disposal. The mercury currently stored at Y-12 is owned by the NNSA and currently identified as a commodity, not a waste. This SEIS-II considers that when, and if, that NNSA elemental mercury is declared a waste, the elemental mercury stored at Y-12 would be transferred to the DOE-designated elemental mercury storage facility and would not remain at Y-12.

**Comment 6-14:**

The City of Oak Ridge is also concerned that mercury recovered from the soon to be completed Mercury Treatment Facility at Y-12 will add to the existing stockpile of mercury stored here. The Oak Ridge Office of Environmental Management (OREM) is constructing a mercury water treatment facility at the Y-12 site. The treatment facility, which is scheduled to be operational in 2025, is a key component of the mercury remediation strategy at Y-12 and will help reduce mercury releases into the Upper East Fork Poplar Creek. It will also serve as an important control measure during cleanup of the site. While the city of Oak Ridge recognizes that the Mercury Treatment Facility at Y-12 will reduce mercury released from the West End Mercury Area storm sewer to the Upper East Fork Poplar Creek surface water, it could also result in increasing the stockpile of mercury stored at Y-12.

**Response:**

See responses to Comments 6-11 and 6-13. The Outfall 200 Mercury Treatment Facility currently under construction at Y-12 will capture mercury, as well as other contaminants of concern, using precipitation, flocculation, filtration, and potentially activated carbon, as determined to be necessary to meet the discharge limits. These processes will result in solid waste forms only (in the form of a filter cake with mercury contamination), which can be disposed of in existing Federal and/or commercial disposal facilities. No elemental mercury will be generated as part of the Outfall 200 Mercury Treatment Facility processes, and its operation will not contribute any inventory to the DOE-designated storage facility, nor require storage at the Oak Ridge Reservation.

**Comment 6-15:**

Based on this preliminary analysis of direct, indirect effect and cumulative impact, the City of Oak Ridge, TN strongly requests and advises that DOE remove the Kingston, TN site from further consideration for the storage of mercury waste. We further recommend that DOE not accept the no action alternative as such a decision will adversely impact the City's community goal of

reducing mercury storage in the city and region, thus avoiding likely continual mercury release to the environment.

**Response:**

DOE acknowledges the commenter's preference for an alternative other than DSSI and the No-Action Alternative.

***Environmental Council of the States (ECOS)***

**Comment 7-1:**

ECOS asks that you engage with the states, especially the states where you are considering siting a mercury repository, as you continue your work to implement the long-term mercury storage required under MEBA. States have dealt with mercury issues for decades. Through ECOS, states have worked with the federal government for many years to address sources of mercury pollution, mercury-added products, the management of excess commodity mercury in the U.S., and international mercury reduction efforts. For over 20 years, ECOS policy resolutions have urged the federal government to develop a mercury repository and to include any state where a repository may be sited in the development of the storage plan. Since early 2009, ECOS policies have requested that DOE involve states in the implementation of the Mercury Export Ban Act (MEBA).

**Response:**

DOE acknowledges your request. DOE worked with states during the development of the 2009 Interim Guidance and has recently revised the Interim Guidance. As part of that revision, DOE consulted with EPA and DOT and issued the draft Interim Guidance through a *Federal Register* notice (as described in Section 2.1.4 of this SEIS-II) to obtain public and state regulator input prior to issuing the 2023 Interim Guidance. A Notice of Availability for the Final Interim Guidance was published in the *Federal Register* on September 20, 2023 (88 FR 64897). DOE would also consult with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury.

**Comment 7-2:**

Additionally, as noted in the Federal Register Notice of Availability of this SEIS, DOE has missed the January 1, 2019, deadline for opening a DOE facility for the long-term storage and management of elemental mercury, so needs to work quickly to identify and open a facility. ECOS urges DOE to expedite siting and operation of the MEBA mercury storage facility while fully consulting with all state and local governments that are potential hosts to the repository.

**Response:**

DOE acknowledges the comment.

**Comment 7-3:**

Offering states an opportunity for early, meaningful, and ongoing engagement in your siting process for and operation of the long-term mercury storage facility is critical to your ability to expedite the process. DOE will need state permitting approval as MEBA requires “elemental mercury managed and stored...at a designated facility shall be subject to the requirements of the Solid Waste Disposal Act, including requirements of subtitle C of that Act.” (Section 5(d)1) Authority to implement subtitle C of the Solid Waste Disposal Act has been delegated by the U.S. Environmental Protection Agency to 48 of 50 states, including all of the states hosting sites being considered under this SEIS.

**Response:**

DOE acknowledges the comment. See response to Comment 7-1.

***Coeur Mining, Inc.***

**Comment 8-1:**

**a. DOE Properly Does Not Identify a Preferred Alternative Location for the Management and Storage of Elemental Mercury**

Coeur commends DOE for not identifying a single preferred alternative location for the MEBA facility in the Draft SEIS-II. As DOE is aware, MEBA section 5 requires DOE to designate a facility for the management and storage of elemental mercury. In fulfilling this mandate, DOE must consider all reasonable alternative locations for the management and storage of elemental mercury. DOE is correct not to repeat its past errors by prematurely identifying a single preferred alternative location in the Draft SEIS-II. In 2019, DOE designated the WCS site as the MEBA facility, after conducting a sole-source procurement and after identifying that site as the “preferred alternative” in the Department’s supporting environmental impact statement. *See* 84 Fed. Reg. at 66,892. DOE’s 2019 designation of the WCS facility explained some reasons why DOE chose not to site its MEBA facility at various other federal facilities, but DOE did not mention or appear to consider that there were (and are) other private facilities beside WCS that could be viable for designation. As Coeur demonstrated in *Coeur Rochester, Inc. v. Brouillette et al.*, DOE’s designation of the WCS site without considering all other reasonable alternative locations was arbitrary and capricious.

**Response:**

NEPA requires that DOE consider *a reasonable range of* alternatives that are technically and economically feasible, and meet the purpose and need for the proposed action [40 CFR § 1508.1(z)].

DOE, in response to the requirements of MEBA and corresponding NEPA obligations, conducted environmental analyses resulting in the issuance of the original Mercury Storage EIS in 2011 and a Supplemental Mercury Storage EIS (SEIS) in 2013. At that time, DOE conducted market research by publishing a Request for Expressions of Interest in March 2009 and determined that one commercial facility, WCS, could meet the Department’s need for long-term management and

storage of elemental mercury. Therefore, there were no other commercial entities evaluated in the 2011 EIS or 2013 SEIS.

As discussed in Section 2.2 of this SEIS-II, DOE has conducted additional outreach to commercial entities since the issuance of the *Chemical Safety Act of 2016* and has identified other commercial entities with existing, permitted facilities that could be considered reasonable storage alternatives for the long-term management and storage of elemental mercury. Section 2.2.4 describes the approach that DOE undertook, similar to that used for the 2011 Mercury Storage EIS, to identify additional DOE facilities that could be considered reasonable alternatives.

Additionally, with regard to evaluating additional existing, permitted commercial facilities, as identified in Section 2.2.4 of this SEIS-II, Federal Acquisition Regulations (FAR), which codify uniform policies for acquisition of supplies and services by Federal executive agencies, expresses the preference for Federal Government agencies, including DOE, to use commercial services and capabilities when available and determined to meet the mission needs. These sections of the FAR are derived from Title 41 USC 3307, the US code specifying the US government’s “Preference for commercial products and commercial services.”

As identified in Section 2.7, this Final SEIS-II continues to identify the preferred alternative as “*one or more of the existing commercial facilities.*” If DOE selects an action alternative (as opposed to the No-Action Alternative), the ROD would designate one or more of the facilities evaluated in this SEIS-II for long-term management and storage of elemental mercury.

The designation decision would be based on a combination of factors such as cost, schedule, permitting, risk, policy, procurement requirements, and environmental and technical considerations.

#### **Comment 8-2:**

##### **b. DOE Must Consider All Potential Alternative Locations for Management and Storage of Elemental Mercury, Not Just Existing Facilities**

Even though the Draft SEIS-II does not identify a single preferred alternative location, the Draft SEIS-II, unfortunately, remains fatally flawed because it arbitrarily and capriciously considers only existing facilities and ignores potential alternative locations that would require new construction. DOE expressly limits its “range of reasonable alternatives” to only “existing facilities that could be designated with only minor modifications to meet the permitting requirements for mercury storage.” *See* Draft SEIS-II at 2-7; *see also* Draft SEIS-II (“DOE’s Preferred Alternative is to designate one or more of the existing commercial facilities evaluated in this Draft SEIS-II”).

No provision of MEBA supports DOE’s decision to consider only existing facilities for the long-term management and storage of elemental mercury. DOE must consider all reasonable alternative locations, regardless of whether those alternative locations have existing facilities or not. *See* 40 C.F.R. § 1502.14 (requiring an EIS or SEIS to consider “all reasonable alternatives”).

DOE’s approach in the Draft SEIS-II is arbitrary and capricious because it could result in the Department ignoring, without justification, reasonable alternatives that might otherwise be the most desirable, cost effective, and environmentally protective. *See Motor Vehicle Mfrs. Ass’n of*

*U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46-48 (1983) (agency action was arbitrary and capricious where agency “did not even consider” a reasonable alternative made known to it and also “failed to articulate a basis” for its action). DOE’s focus on existing facilities also ignores, without justification, several locations that DOE itself previously considered as reasonable alternatives for the management and storage of elemental mercury. Both the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS considered both existing facilities and new facilities that would require construction. DOE fails to adequately explain why new facilities should no longer be considered.

The Draft SEIS-II’s statement of purpose and need is inconsistent with MEBA and does not justify DOE’s sole focus on existing facilities. The Draft SEIS-II wrongly states that “[b]ecause statutory milestone dates have now passed, DOE needs to designate a facility and begin accepting elemental mercury as soon as practicable.” See Draft SEIS-II at 1-3. The Draft SEIS-II then states that only existing facilities meet this alleged “schedule urgency.” *Id.* at 2-32. But there is no requirement under MEBA that DOE designate a facility “as soon as practicable.” MEBA imposes certain burdens on DOE if a long-term management and storage facility is not operational by certain statutory deadlines.<sup>2</sup> Those statutory deadlines have already expired, however, and the resulting statutory burdens have already been imposed on DOE. There is no additional requirement under MEBA that DOE designate a facility as “soon as practicable,” after expiration of the statutory deadlines. DOE’s statement of purpose and need is inconsistent with the statute and does not justify DOE’s decision to restrict the range of reasonable alternatives considered in the Draft SEIS-II to only existing commercial facilities.

To the extent DOE feels “urgency” to designate a MEBA facility, that urgency results from DOE’s own delays and the costs and burdens that DOE bears as a result, neither of which are an appropriate basis to ignore alternative locations that would require new construction. DOE cannot use its self-imposed “schedule urgency” to abbreviate its review and selection of alternatives.

DOE should revise the Draft SEIS-II to consider all reasonable alternative locations for the long-term management and storage of elemental mercury, even if those locations require new construction.

<sup>2</sup>MEBA established January 1, 2019, as the date by which a MEBA facility for the long-term management and storage of elemental mercury was required to be operational. 42 U.S.C. § 6939f(a)(2). If the DOE facility was not operation by that date, which it was not, MEBA requires that DOE adjust fees for generators temporarily accumulating elemental mercury. 42 U.S.C. § 6939f(b)(1)(B)(iv). If the DOE facility was not operational by January 1, 2020, which it was not, MEBA requires DOE to: (1) immediately accept the conveyance of title to all elemental mercury that has accumulated on site prior to January 1, 2020; (2) pay any applicable Federal permitting costs; and (3) store, or pay the cost of storage of, until the time at which a facility is operational, accumulated mercury to which the Secretary has title in a facility that has been issued a permit. 42 U.S.C. § 6939f(b)(1)(C).

### **Response:**

DOE was neither arbitrary nor capricious when selecting the alternatives for evaluation in the Draft SEIS-II. DOE described in Chapter 2 of the Draft SEIS-II the process used to determine the range of reasonable alternatives. Section 2.1.1 identifies the duration used for analytical purposes in the SEIS, which was 40 years. That section also identifies the uncertainty associated with the need for a long-term management and storage facility because of the potential for EPA approval of a treatment and disposal approach for elemental mercury, and DOE’s interpretation that

“management” includes treatment and disposal. This interpretation is based on 42 U.S.C. § 6903(7) and (33), which state:

42 U.S.C. § 6903 (7) - The term “hazardous waste management” means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

42 U.S.C. § 6903 (33) - The term “storage”, when used in connection with hazardous waste, means the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste.

As identified in Section 2.1.1, EPA is reviewing a petition for a site-specific variance that, if approved, could allow treatment and disposal of elemental mercury in the United States. Section 2.1.2 identifies that if the variance is approved, treatment and disposal could be an available option much earlier than the 40 years evaluated in this SEIS-II. This uncertainty affects not only the potential duration for the need for the facility but also the potential size of the facility as well. Section 2.1.2 of the Draft SEIS-II discusses the estimated inventory of mercury that could require long-term management and storage, which would be approximately 7,000 metric tons assuming the 40-year analytical duration. The sensitivity study in Section 2.10.1 analyzes the potential duration of 10 years and storage of 3,600 metric tons. This uncertainty in inventory means that the size of the designated facility or number of designated facilities could be significantly less than that required to store 7,000 metric tons. Section 2.1.1 indicates that based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years.

Section 2.2 of the SEIS-II describes the process that DOE used to identify the range of reasonable alternatives for evaluation. That section includes reasons why DOE does not consider construction of a new facility to be a reasonable alternative, especially considering the uncertainties identified above. It should also be noted that there is language in MEBA that suggests that new construction is not preferred. Specifically, MEBA Section 5(b)(2) states, “*Building design and building construction costs shall only be included to the extent that the Secretary finds that the management and storage of elemental mercury accepted under the program under this section cannot be accomplished without construction of a new building or buildings.*”

As stated in Section 2.2 of this SEIS-II, “There are three primary reasons that new construction would not be a reasonable alternative: (1) As identified in Section 2.1.1, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years, therefore use of an existing facility would represent a lower irretrievable commitment of resources; (2) Construction of a new facility generally would not meet the purpose and need for agency action, as identified in Section 1.2 of this SEIS-II, since schedule delays associated with new construction would further exacerbate the missed statutory deadline that a DOE-designated storage facility be operational by January 1, 2019; and (3) New construction would result in construction-related environmental impacts that would not otherwise be realized if existing facilities were used.”

It should also be noted that DOE considered the Federal Acquisition Regulation (FAR) when evaluating the range of reasonable alternatives for this SEIS-II and did not identify an alternative

that would have included construction of a new storage facility or facilities. The FAR is the primary regulation used by all Federal executive agencies in their acquisition of supplies and services. The FAR was established to codify uniform policies for acquisition of supplies and services by Federal executive agencies. The FAR, as described in Part 10, Part 11, and Part 12 policy statements, expresses the preference for Federal Government agencies, including DOE, to use commercial services and capabilities when available and determined to meet the mission needs.<sup>1</sup> The actions described in the response to Comment 8-1 concluded that commercial entities could provide the long-term management and storage requirements of MEBA, as amended.

DOE's schedule urgency is linked to satisfying the MEBA requirements as soon as practicable because the statutory milestones have passed. Costs are continuing to be incurred and could result in additional costs to taxpayers.

### **Comment 8-3:**

#### **c. DOE Fails to Adequately Consider the Hawthorne Army Depot**

DOE fails to adequately consider the Hawthorne Army Depot ("HAWD") as an alternative location for the long-term management and storage of elemental mercury. HAWD has long been identified as the lowest-cost alternative for the management and storage of elemental mercury. Despite this fact, in the Draft SEIS-II, DOE now discredits this alternative because it will allegedly not meet DOE's desired timing. As discussed above, there is no requirement in MEBA for DOE to designate a facility as soon as practicable, and DOE's preference for facilities that can become operational as soon as possible could arbitrarily and capriciously cause the Department to eliminate the HAWD alternative location.

Furthermore, DOE overestimates the time required to complete the permitting and other activities necessary prior to the acceptance of mercury at HAWD. The Draft SEIS-II states that it will take "between three and five years" to complete a lease agreement with the U.S. Department of Defense ("DoD"), design the required facility modifications, obtain the required permits, and complete the required consultation with the Nevada State Historic Preservation Officer. *See* Draft SEIS-II at 4-31. Yet, DOE provides no justification for these assumptions. DOE separately estimates that it will take 18 months to complete a lease agreement with DoD, and 12 months to receive the necessary permits from the Nevada Division of Environmental Protection ("NDEP"). Both estimates appear inflated and are not supported by any specific justification. Even if these time estimates were accurate, the actions can be conducted concurrently, resulting in an 18-month timeframe, rather than DOE's posited "three to five years."

### **Response:**

DOE did not fail to adequately consider the HWAD as an alternative location. HWAD was evaluated as a reasonable alternative in the 2011 Mercury Storage EIS and is evaluated as a

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<sup>1</sup> Title 41 U.S.C. § 3307 is the US code that specifies the U.S. Government's "preference for commercial products and commercial services." FAR Parts 10, 11, and 12 are the regulations derived from 41 U.S.C. § 3307. Specifically, FAR Part 12, states, "The head of the agency **shall** (a) Conduct market research to determine whether commercial products, **commercial services**, or non-developmental items **are available that could meet the agency's requirements**; [and] (b) **Acquire** commercial products, **commercial services**, or non-developmental items **when they are available to meet the needs of the agency**." (emphasis added)

reasonable alternative in this SEIS-II. The HWAD alternative is evaluated with the same level of rigor and consistently with other alternatives in this SEIS-II.

With regard to the comments about relative costs, these costs have no bearing on the potential impacts of the HWAD alternative, however, DOE has prepared a relative cost comparison workbook based on a 2007 EPA report that reaffirms EPA's conclusion that the HWAD storage scenario's costs are comparable to (not significantly higher or lower than) private-sector storage costs. This comparison has been included in the Administrative Record for this NEPA process and would also be included in the record to support any potential designation decision.

The basis for the estimated duration of activities required for HWAD to be ready to accept mercury as the designated facility are provided in Section 2.3.1 of this SEIS-II. Additional information related to the response follows. Approximately 4,400 MT of elemental mercury are currently at HWAD in 14 separate facilities. This inventory is managed as a commodity and maintained as part of the United States' strategic stockpile. As such, these facilities are not permitted for hazardous waste storage and are not managed under RCRA requirements, but rather the State of Nevada Chemical Accident Prevention Program. For the scenario in which 7,000 MT of elemental mercury are accumulated, DOE would require up to 23 buildings similar to the 14 used at HWAD for commodity elemental mercury storage to support the DOE needs. Each would require modification (e.g., ventilation, mercury vapor monitoring, berm installation, floor sealing, lighting, fire protection) as well as permitting. Additionally, other infrastructure upgrades would be needed including access roads, potable water, and utilities. This investment might be cost effective if long-term storage duration was definite (i.e., 40 years or more); however, with the recognized uncertainty (see response to Comment 8-2), it is not clear how many buildings would be required and when. Based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years.

As identified in Section 2.3.1 of this SEIS-II, the capital improvements at HWAD would require compliance with DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. DOE Order 413.3B includes a stepwise process to achieve Critical Decisions (CDs) from CD-0 (approve mission need), CD-1 (approve alternative selection and cost range), CD-2 (approve performance baseline), CD-3 (approve start of construction/execution) through CD-4 (approve start of operations or project completion). Each of these steps requires time and funding to reach the decision. The uncertainty associated with the long-term need and the potential capital improvements would provide significant challenges to the Federal Government budgeting process. Generally, a permit application must be accompanied by a mature facility design (CD-2), which limits the ability to conduct design and permitting in parallel. The estimated durations for obtaining funding authorization, design, construction, and permitting were based on experiences for similar projects at various Federal Government sites and were not intended to be unrealistic or overly conservative. Rather, they are considered to be reasonable based on past performance. The general process for acquiring new capital assets that are funded by the Federal Government is described in Section 2.2 of this SEIS-II and, with the information in Section 2.3.1, provides the basis for the estimated schedule. To provide added complexity to the duration described above, as described in Section 4.3.6.1, the modifications to the existing buildings could not begin implementation before approval by the Nevada State Historic Preservation Office because these buildings are eligible for listing on the National Register of Historic Places. All things considered, it is unlikely that all these activities could be completed in fewer than five years.

**Comment 8-4:**

**d. DOE Must Designate a Facility That is Truly Controlled by DOE**

MEBA requires DOE to designate a facility “of the Department of Energy” for long-term management and storage. Over the past decade, DOE has consistently interpreted that phrase to permit the use of a leased facility so long as DOE has the same degree of control over the facility that it would over a property it owned. In the Draft SEIS-II, DOE once again “construes the term facility of DOE to include a facility leased from a commercial entity or another Federal agency, over which DOE provides an appropriate level of oversight and guidance.” *See* Draft SEIS-II at 1-2. However, in the prior WCS contract, DOE yielded all control over the operations at the facility. Whatever facility DOE designates as the MEBA facility this time, DOE must adhere to the principle that it needs to have control of a facility for it to qualify as a facility of the Department of Energy. At a minimum, DOE must be able to choose what persons operate, and receive and manage mercury at the facility or portion of the facility designated as the MEBA facility.

**Response:**

DOE agrees with the commenter that DOE needs to have sufficient control of the facility. DOE interprets the phrase “facility of the Department of Energy” to focus on DOE’s control over, and responsibility for, the facility’s operation. Specifically, DOE has interpreted “facility of the Department of Energy” to be a facility over which DOE exercises the authority necessary to ensure that the facility is managed and operated in compliance with MEBA and other applicable legal requirements, including those addressing the protection of human health and the environment. Consistent with DOE’s long-standing practice of leased and contractor-operated facilities, DOE will closely oversee the contractor-operated mercury management and storage facility via strict contract measures combined with taking property rights in the facility through a leasehold. DOE’s current request for proposal (RFP) for mercury management and storage (in dozens of pages of detailed requirements and specifications) specifies the degree of DOE oversight to ultimately be established under a resulting DOE/private contract. Further, the specifications require a “fully enclosed, weather-protected structure,” which complies with all applicable regulatory requirements. The RFP further requires RCRA- and USDOT-compliant performance for receiving, handling, container storage, security, and more. The RFP, consistent with applicable local, state, and federal regulatory requirements, also requires submission of operating records, inventories, and other reports. The degree of oversight covers employee competence and discipline, including requirements related to issues such as employee substance abuse.

In addition to tight contractually imposed oversight, the arrangement involves DOE entering into a lease agreement covering the premises where the operations will occur. The lease would designate and require the premises to be used exclusively for DOE elemental mercury management and storage, consistent with contract provisions governing operations at the premises, and would grant DOE access to the premises.

DOE’s approach is also consistent with its long-standing practice of leasing facilities to accomplish core DOE missions and is consistent with MEBA and the Federal Acquisition Regulation. See response to Comments 1-1, 1-3, 5-7, and 13-3 and text in Section 1.2 of this SEIS-II. DOE compiled a paper addressing additional background information and support for its interpretation.

The paper is included in the Administrative Record for this NEPA action. This paper would also be included in an Administrative Record for any designation decision.

**Comment 8-5:**

**e. DOE Should Reevaluate the Purity Standard Required for Elemental Mercury Stored at the Designated Facility**

DOE should also reevaluate its elemental mercury storage acceptance purity standard. Pursuant to DOE's 2009 guidance, generators are required to have their elemental mercury refined to 99.5% purity before it can be shipped to DOE for storage.<sup>3</sup> The rationale for the standard is that impurities may have a long-term corrosive effect on storage containers. Coeur previously sent its mercury to a Waste Management facility in Union Grove, Wisconsin to be refined to meet DOE's 99.5% purity standard. The Union Grove facility, however, has closed and Coeur and other stakeholders are concerned there is not sufficient industrial capacity to allow generators to have their elemental mercury refined to meet DOE's 99.5% purity standard. Furthermore, to the extent the standard was intended to reduce the risk of corrosion to storage containers for elemental mercury stored indefinitely, a reduced purity standard may be appropriate and safe in light of the finite duration for storage being proposed by DOE.

<sup>3</sup> See U.S. Dep't of Energy Office of Env'tl Mgmt., "U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury," p.1-5 (Nov. 13, 2009).

**Response:**

DOE has revised its Interim Guidance as described in Section 2.1.4 of this SEIS-II. The revised guidance does not require any DOE-specified minimum percent by volume for elemental mercury accepted for long-term storage at the DOE-designated facility. Rather, it focuses on applicable RCRA and DOT regulations related to treatment standards and compatibility of the waste with the containers to ensure that the container integrity is not compromised, which meets the original intent of the 99.5 percent by volume acceptance criteria for reliable long-term storage.

**Comment 8-6:**

**f. DOE Must Consider Impacts From the Transportation of Mercury, Including Transportation from Ore Processors to RCRA-Permitted Treatment Facilities Necessary to Ensure Mercury Meets Waste Acceptance Criteria Prior to Long-Term Storage**

Coeur supports the Draft SEIS's consideration of all mercury transportation-related impacts. The Draft SEIS-II properly analyzes impacts from transportation from source locations to the designated storage facility or facilities and "the potential additional transportation for shipment of mercury from ore processors to a RCRA-permitted treatment facility to ensure that the mercury meets the waste acceptance criteria prior to shipment to the DOE-designated storage facility(ies)." See Draft SEIS-II at 2-4. Furthermore, as discussed above, DOE could decrease transportation related impacts by reevaluating its elemental mercury storage acceptance purity standard. If a reduced purity standard were adopted, ore processors may not have to transport mercury to treatment facilities prior to transporting that mercury to the designated long-term management and storage facility.

**Response:**

As mentioned in response to Comment 8-5, DOE has revised its Interim Guidance as described in Section 2.1.4 of this SEIS-II and has removed the 99.5 percent by volume elemental mercury requirement. The transportation analysis in this SEIS-II has been revised accordingly, however, the range of potential impacts associated with potential pre-storage treatment are still provided in the Final SEIS-II.

***U.S. Environmental Protection Agency***

**Comment 9-1**

The EPA recommends the DOE identifies site-specific adaptation or resiliency measures to address potential increasing frequency and intensity of severe weather given current climate models. We recommend the Final EIS addresses how the proposed facilities will incorporate measures to better harden structures against such events, reducing the risk of a facility spill.

**Response:**

The Mercury Storage SEIS-II evaluates the potential storage of elemental mercury in existing facilities, permitted by state regulators, with one exception. Some facilities at HWAD are currently permitted with the State of Nevada for storage of elemental mercury as a commodity; however, the specific facilities that would be used for long-term management and storage of elemental mercury under MEBA are not currently permitted for hazardous waste storage and would need to undergo that process if HWAD were the designated facility.

Potential impacts associated with greenhouse gas emissions and climate change are addressed in the air quality sections in Chapter 4 for each alternative. In response to this comment, DOE has updated Chapter 4 (i.e., Sections 4.x.4.1, where “x” is the section number corresponding to the alternative site) to address the potential need for site-specific adaptation or resiliency measures to address severe weather. These sections have also been updated to present the social cost of carbon, consistent with Executive Order 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, and as recommended in CEQ’s *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*. Because these are all existing, permitted facilities, DOE would work with the owner-operator of the facility and the state regulator to implement any measures that were identified as necessary.

**Comment 9-2**

If recycling is part of the management of the elementary mercury, the EPA recommends the DOE incorporates an in-depth discussion of recycling for each proposed facility, including state and federal regulatory requirements. Additionally, for instances where elementary mercury becomes a constituent in air emissions, wastewater and stormwater discharges, and other environmental media, the EPA recommends the DOE evaluates if other permits or permit modifications are necessary at each proposed facility and ensure compliance with all applicable federal and state requirements.

**Response:**

Recycling is not part of the proposed long-term management and storage of elemental mercury accepted at a designated storage facility. DOE would verify that any facility designated as a long-term management and storage site for elemental mercury maintains the appropriate permits required by either state or Federal regulations prior to accepting elemental mercury for storage.

**Comment 9-3**

We recommend the DOE incorporate a discussion of the Clean Air Act Section 112(r) and the Emergency Planning and Community Right to Know Act (EPCRA) Section 303, 311, and 312, as applicable. See <https://www.epa.gov/epcra/what-epcra> and <https://www.epa.gov/rmp/factsheet-clean-air-act-section-112r-accidental-release-prevention-risk-management-plan-rule>.

**Response:**

The DOE 2023 Interim Guidance identifies key regulatory requirements that must be considered for storage of elemental mercury, including updates to the facility's preparedness, prevention, and emergency procedures, as appropriate, in accordance with Subpart M of 40 CFR Part 262. The 2023 Interim Guidance refers to the information in *Clean Air Act* Section 112(r) on the Prevention of Accidental Releases (Risk Management Program) and the EPCRA; Section 2.1.4 of this SEIS-II was updated to include this information. Section 7.2.2.8 of the 2023 Interim Guidance provides other features of proper hazardous waste management and includes that *"Reports that must be made to the EPA Regional Administrator include, but are not limited to, reports of releases, fires and explosions, groundwater contamination and monitoring data, and facility closure (40 CFR 264/265.77). Releases may also trigger Comprehensive Environmental Response, Compensation, and Liability Act and Emergency Planning and Community Right-to-Know Act reporting."*

**Comment 9-4**

The EIS considers risks to facilities in the 100-yr floodplain. Under the climate change section, the EIS does not identify any potential adverse risks to facilities due to climate-related extreme weather events. The EPA recommends the DOE evaluates potential risks to facilities in the 500-yr floodplain and their surrounding communities and natural resources should extreme flooding occur. Additionally, we recommend evaluating other catastrophic weather events (i.e., tornadoes) that could compromise containment or destroy a storage facility or facilities. Characterizing the impacts of such events to human health and the environment would provide an assessment of facilities' capability to safely store elemental mercury.

**Response:**

The Federal Flood Risk Management Standard provides agencies the flexibility to use one of three approaches to evaluating flood hazard areas: a climate informed science approach, a freeboard value approach that adds 3 feet to the flood elevation for critical actions, and the 500-year floodplain. First, DOE evaluated whether sites occurred within the 500-year floodplain. Where the 500-year floodplain is mapped, none of the evaluated sites occur within that floodplain. Secondly, where the 500-year floodplain is not mapped or available, DOE evaluated whether the sites occurred within the freeboard value above the 100-year floodplain. As discussed in response

to Comment 9-1, each of the appropriate sections in Chapter 4 for each alternative have been revised to clarify the analysis in response to this comment.

As identified in Table 4-4 of this SEIS-II, the earthquake scenario bounds the analysis for catastrophic weather events (e.g., tornadoes, high winds, and floods). The beyond-design-basis earthquake scenario assumes a building collapse and full exposure of the floor space from which elemental mercury could evaporate. This scenario would maximize potential impacts and is expected to be greater or comparable to what might occur under a catastrophic weather event.

#### **Comment 9-5**

The EIS identifies that several proposed facilities are in the vicinity of communities, who may have environmental justice concerns. Also, the EIS indicates that risk to these communities is minimal even under unlikely scenarios. We recommend that the EIS provides an impact evaluation of proposed facilities with nearby businesses and communities for catastrophic failure. For instance, an evaluation of catastrophic failure of containment or facility destruction, however unlikely, should be fully evaluated to disclose the possible worst-case scenario to populations surrounding the facility or facilities. This Information will be valuable for the decision-maker(s) and the public to understand the potential impacts to surrounding communities from the proposed facilities.

#### **Response:**

Analysis of worst-case accidents is not required under NEPA (51 FR 15618; April 25, 1986). The Mercury Storage SEIS-II includes an evaluation of a beyond-design-basis earthquake event that would result in collapse of the mercury storage facility and release mercury from the containers. Although other permitted materials may be stored in the facility, this SEIS-II only evaluates the potential consequences to surrounding members of the public from the mercury release, which is the subject of this SEIS. A design-basis-earthquake in which the building remains intact could occur once every 2,500 years. No attempt was made to differentiate the relative conditional probabilities of the two earthquake scenarios (with or without building collapse), i.e., they were both assigned a moderate frequency level (FL-III), which is extremely conservative because construction of the facilities would have been compliant with the building codes applicable for the region, which account for the seismicity of the region. Therefore, complete failure of the building would only occur in the event of an earthquake that would be significantly less probable than once every 2,500 years. The analysis of the event (irrespective of its probability), identifies that the concentration of mercury vapor in the immediate vicinity of the collapsed building would be in the SL-IV range, meaning potentially lethal concentrations could be present. The range of building wake factors and storage building floor areas for the alternative sites evaluated in this SEIS-II are within the range of wake factors and floor areas evaluated in the 2011 Mercury Storage EIS. Appendix E, Table E-2, of the 2013 Mercury Storage SEIS provides the updated maximum predicted distances to consequence SL-II, SL-III, and SL-IV concentrations of mercury vapor (SL=severity level). In the 2013 SEIS, the analysis reflected changes to the Protective Action Criteria, which included the threshold value for the SL-II. This threshold value remains consistent with current guidance. For all alternative sites, the distance to a SL-IV concentration was less than 100 meters. This means that potential mercury concentrations would not be as high as SL-IV at distances of 100 meters or more from the collapsed building. Predicted distances to SL-III

concentrations ranged from less than 100 meters to 250 meters at HWAD. Most sites had a predicted distance near 200 meters. The predicted distance to a SL-II (low consequence) level ranged from 200 to 1,010 meters. Based on the similar physical characteristics of the existing storage buildings evaluated in this SEIS-II, it is reasonable to assume that the range of distances to SL-II, SL-III, and SL-IV concentrations would be similar. Appendix B, Table B-11, provides the estimated distances to the nearest site boundary or public receptor for each alternative site. The distances from the potential storage locations to the closest public access or site boundary range from 115 feet for the Bethlehem Apparatus site boundary to 6.2 miles to the closest public highway for the Clean Harbors Grassy Mountain site.

The Final SEIS-II was revised to include additional information in Chapter 3 for each of the alternatives for the location of communities with environmental justice concerns.

#### **Comment 9-6**

The EPA recommends the DOE incorporates a detailed discussion on potential incompatibility of elementary mercury with other RCRA wastes that may share storage or containment. External corrosion of mercury containers due to humid conditions, condensation, gases, or spills from other wastes could accelerate failure of the mercury containers.

#### **Response:**

The long-term management and storage facility would be regulated by RCRA requirements or state equivalent requirements where states are authorized to regulate in lieu of RCRA. DOE's 2023 Interim Guidance for storage of elemental mercury does not establish new requirements but it does identify key regulatory requirements that must be considered for storage of elemental mercury, including precautions taken at the facility when managing ignitable, reactive, or incompatible wastes in their RCRA Part B permit application.

In Section 5.5.1.1 of the 2023 Interim Guidance, DOE identifies that RCRA regulations require periodic inspections of the storage facility and equipment (40 CFR §§ 264/265.15). The facility inspections are performed to identify any potential problems related to malfunctions and deterioration of equipment or structures, operator errors, and discharges that may lead to the release of hazardous waste constituents to the environment or pose a threat to human health. Any accelerated corrosion or failure would be detected during these inspections.

#### **Comment 9-7**

Some of the fish consumption rates selected for evaluating the release of mercury followed by deposition, bioaccumulation in fish, and consumption of fish do not match the intended scenario of protecting people who fish locally and eat some of the fish they catch. The National Average fish consumption rate is taken from a per capita study including respondents that consume very little or no fish. This has the effect of artificially lowering the fish consumption rate of the population you are intending to protect. Fish consumption rates should be targeted to people who fish locally and eat some of the fish they catch. The 1997 and 2011 editions of the Exposure Factors Handbook both derive these fish consumption rates from the 1987-1988 USDA National Food Consumption Survey (NFCS)<sup>1</sup>, the only one of seven national household food consumption surveys since the 1930s to address *Consumer Only Intake of Home Caught Fish*.

EPA's 2005 Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities (HHRAP)<sup>2</sup> used mean-value consumption rates from this survey of 0.0875 kg/day for an adult fisher and 0.0132 kg/day for a child fisher. The HHRAP also explains that these values are not interpreted as strictly subsistence fishers since it includes respondents who reported any amount of locally caught fish consumption, not just the higher amounts associated with "fishers who rely on noncommercially caught fish and shellfish as a major source of protein in their diets" – a definition of subsistence fishers provided by EPA's 2000 Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories<sup>3</sup>. We recommend the DOE incorporate a detailed discussion of fish consumption for local fishers at the rates recommended by the 2005 HHRAP guidance.

<sup>1</sup> *Food Consumption and Dietary Levels of Households in the United States, 1987-88*, Nationwide Food Consumption Survey 1987-88, NFCS Rep. No. 87-H-1, Agricultural Research Service, 1994.

<sup>2</sup> *Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities*, Office of Solid Waste and Emergency Response, EPA530-R-05-006, September 2005.

<sup>3</sup> *Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories*, Volume 2, Risk Assessment and Fish Consumption Limits, Third Edition, EPA 823-B-00-008, Office of Water, Washington D.C., November 2000

### **Response:**

The SEIS did consider a range of individuals that consumed locally caught fish. A complete description of the analysis can be found in Appendix D of the 2011 Mercury Storage EIS. A summary of those results is provided in this SEIS-II. The analysis considered an average consumption rate of 0.0175 kg/day, an average subsistence fisherman who consumed 0.059 kg/day, and a subsistence fisherman at the 95<sup>th</sup> percentile of 0.17 kg/day. It should also be noted that in the Exposure Factors Handbook data (Table 13-20), only an average of 2.08% of the survey respondents consumed home-caught fish (<https://www.epa.gov/expobox/about-exposure-factors-handbook>). Therefore, the proportion of the population consuming locally caught fish is very low. Routine transportation and management and storage at the facility of elemental mercury is not expected to result in elemental mercury impacts to consumers of locally caught fish. In the unlikely case that a truck crashed with fire and a fish-bearing waterbody was nearby, warnings would be issued against fish consumption and monitoring could occur thus mitigating risks to fishermen. The conclusion that the risk to fishermen at the national average and subsistence consumption rates is negligible remains valid with a possible low risk for subsistence fishermen consuming fish at the 95<sup>th</sup> percentile rate.

### **Comment 9-8**

Regarding the description on page 4-19 and the reference in the 2011 Mercury Storage EIS in Section 4.2.9.1.5, the fate and transport calculations for mercury releases transition from deposition directly to fish concentrations without a discussion of run-off, sediment, and surface water equilibrium; conversion to freely dissolved water concentrations; and the use of bioaccumulation factors. The EPA recommends the DOE incorporate an in-depth discussion of fate and transport calculations for mercury releases that result in bioaccumulation in fish followed by ingestion by people who fish.

**Response:**

The potential risk to local fishermen from consuming locally caught fish contaminated with mercury from a transportation accident with fire is extremely low. Developing a detailed discussion of mechanistic factors that could be involved in the process from mercury release to bioaccumulation would not improve the overall estimate of potential risk. In addition, every potential site (lake, stream, pond, or river) would be different. The level of analyses recommended would not be in proportion to the potential impact.

**Comment 9-9**

We recommend the DOE incorporate an in-depth discussion of the RCRA permitting process, including:

- If the authorized states do not grant the permit modifications necessary for the proposed action;
- The impact of MEBA on RCRA and the States' authorized RCRA Program;
- Storage and other requirements under the States' authorized RCRA Program for each proposed facility;
- Clarification of the DOE becoming a leaseholder with an "appropriate level of responsibility and control over the facility" that will result in the DOE becoming an *owner* or *operator* of the facility under RCRA; and
- Prevention of releases, including real-time and periodic monitoring, response actions, and inspections for each facility.

**Response:**

The long-term management and storage facility would be regulated by RCRA requirements or state equivalent requirements where states are authorized to regulate in lieu of RCRA.

DOE would consult with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury in order to assure compliance with the state's authorized regulations. There is no requirement in MEBA that DOE is an owner or operator, under RCRA, of the facility.

The "impact of MEBA on RCRA and the State's authorized RCRA Program" is outside the scope of this SEIS-II. However, DOE expects any designated facility to operate in accordance with RCRA requirements or state equivalent requirements for authorized states.

See responses to Comments 1-3, 5-7, 8-4, and 13-3, which address DOE's interpretation of facility of DOE and appropriate level of responsibility and control. DOE also compiled a paper addressing additional background information and support for its interpretation. The paper is included in the Administrative Record for this NEPA action. This paper would also be included in an Administrative Record for any designation decision.

Operational details, including those requested by the commenter, would be specified in the state-specific permit and would be compliant with RCRA for the protection of the public and the environment. Many of these design and operational requirements are provided in Section 2.1.4 and in the updated 2023 Interim Guidance.

### **Comment 9-10**

In review of the 2009 DOE Guidance for Storage<sup>4</sup>, the EPA recommends the DOE adapts the Workspace Air Monitoring Standard in Section 5.3 to co-function as leak detection, possibly on a continuous basis. Handheld vapor analyzers or other enhanced monitoring could be used to identify leaking containers or spills in waste handling, shipping, and receiving areas, including in secondary containment devices, to detect any releases in real-time. Additionally, we recommend the DOE incorporates an in-depth discussion of the segregation of elementary mercury from other wastes which could pose risks to the exterior of the mercury containers.

<sup>4</sup> U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury, Oak Ridge National Laboratory Managed by UT-Battelle, LLC, for the U.S. Department of Energy under contract DE-AC05-00OR22725, U.S. Department of Energy, Office of Environmental Management, Washington, D.C., November 13, 2009.

### **Response:**

DOE has recently revised the Interim Guidance. Section 5.3 in the 2009 Interim Guidance referenced by the commenter is now Section 5.2.6 in the revised guidance. As part of the revision, DOE consulted with EPA and DOT and issued the draft Interim Guidance through a *Federal Register* notice (as described in Section 2.1.4 of this SEIS-II) to obtain public and state regulator input prior to issuing the final 2023 Interim Guidance. A Notice of Availability for the Final Interim Guidance was published in the *Federal Register* on September 20, 2023 (88 FR 64897). DOE would also consult with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury. In the updated guidance, DOE states, *“In summary, this guidance document is not a regulation, but a compilation of key existing requirements that support the safe handling, packaging, transportation, receipt, and storage (short-term and long-term) of elemental mercury. It does not change or substitute for any statutory or regulatory provisions.”*

Section 5.2.6 of the 2023 Interim Guidance includes a section on workspace air monitoring, which provides the criteria for using mercury vapor analyzers to monitor the breathing air in the workspace to ensure that workers’ exposures to mercury vapors stay within the specified allowable concentration. These mercury vapor analyzers would not only serve to detect leaks but also detect mercury vapors that could be released from improper seals or from external contamination.

With regard to segregation of mercury containers, in accordance with 40 CFR § 264.177(c), a storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. Further, 40 CFR § 264.17(b)(4) and (5) also address storage conditions related to *“mixture or commingling of incompatible wastes, or incompatible wastes and materials.”* Such activities must be conducted in a manner in which they do not *“(4) Damage the structural integrity of the device*

or facility containing the waste; or (5) Through other like means threaten human health or the environment.” Further, 40 CFR § 264.17(c) requires that when these types of scenarios exist and the owner or operator of the facility must comply with any provisions of 40 CFR § 264.17(b), the approach for achieving that compliance must be documented. Additionally, the owner or operator of the facility must conduct inspections in accordance with 40 CFR § 264.15 and 40 CFR § 264.174. If, during these inspections, a container holding hazardous waste is observed to not be in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, it must be managed in accordance with 40 CFR § 264.171. These existing regulations are sufficient to address concerns associated with degraded or failed containers and will dictate whether containers containing elemental mercury need to be segregated from other wastes.

## Comment 9-11

### Transportation Safety

The EPA recommends the DOE evaluates and discloses the relative risk of a highway accident of a transported load of elemental mercury between the sources of elemental mercury and the existing long-term management and storage facility or facilities under consideration. In addition to presenting this highway accident risk comparison between potential storage facilities, the DOE may also want to compare these alternatives with the average annual highway accident rate for commercial trucks on the nation’s highways to also offer a baseline comparison of public road risk.

### Response:

The relative risk of a highway accident involving transportation of mercury between the sources and the proposed long-term management and storage facilities (or to a pre-treatment storage facility) is proportional to the total truck shipment miles, which is provided in Appendix B, Table B-3. As in the 2011 Mercury Storage EIS analysis, Appendix B of the SEIS states that the probability of an accident to any of the sites would remain in the moderate frequency range (FL-III), consistent with the analysis in the 2011 Mercury Storage EIS. The only accident scenario where mercury would be deposited on the ground or in waterbodies would be a truck crash with fire and with rain. A comparison of those probabilities for each storage site is provided in Table B-4 in Appendix B.

The 2011 Mercury Storage EIS reported a probability of a truck accident without a spill or a fire as  $6.5 \times 10^{-7}$  accidents per mile. Section B.4 of this SEIS-II states:

*“Data from the U.S. Department of Transportation Federal Motor Carrier Safety Administration (FMCSA) indicate that truck accident rates have changed slightly since the data used in the 2011 EIS, which used accident rate data (truck accidents per 100 million miles) obtained from the FMCSA for the 4-year period 2004–2007. For this SEIS-II, DOE reviewed similar data from FMCSA for the 4-year period 2016–2019. The updated data indicate that the accident rates for different scenarios (property damage only, injuries, and fatalities) are relatively consistent with the data used in the 2011 Mercury Storage EIS. Incident rates of accidents involving property damage decreased 7.4 percent from 2004–2007 to 2016–2019. Incident rates of accidents involving injuries increased 8.1 percent from 2004–*

*2007 to 2016–2019. Incident rates of accidents involving fatalities decreased 21 percent from 2004–2007 to 2016–2019 (FMCSA 2021a, 2021b, 2021c). Considering that these accident rates have mostly decreased and are only used in the transportation analysis to determine the appropriate FL range, the small changes in initiating accident rates would not result in different FLs for the analysis of transportation risk.”*

Considering that the Proposed Action would represent an annual average of 13 truck shipments, the relative increase to traffic and accident risk to the nation’s highways would be minimal.

### **Comment 9-12**

#### **Selection of Facility or Facilities**

The EIS does not explain the criteria the DOE would use to decide whether to select between one or more facilities for long-term management and storage of elemental mercury. It is also unclear if the remand of the Fee Rule ultimately affects the selection of a facility or facilities. We recommend disclosure of the criteria the DOE will use to determine if a single or multiple facilities would be selected.

#### **Response:**

Under NEPA, DOE evaluates and discloses the potential environmental impacts to the human and natural environment. Section 2.7 of this Final SEIS-II identifies DOE’s preferred alternative. The ultimate decision to designate one or more facilities for the long-term management and storage of elemental mercury would involve a combination of factors associated with cost, schedule, permitting, technical considerations, risk, and policy. As shown in this SEIS-II, the Proposed Action would not be expected to result in significant environmental impacts for any of the alternatives. Therefore, potential environmental impacts would not likely be a major differentiator among alternatives, however, the designated facility(ies) would be identified in a ROD (if DOE selected an action alternative).

The remand of the Fee Rule has no bearing on the analysis of potential impacts in this SEIS-II. As stated above, however, cost is one of the factors that DOE would consider as part of its decision to designate one or more facilities for the long-term management and storage of elemental mercury. Additionally, DOE will ultimately propose and issue a new fee rule that reflects the cost associated with the designated facility or facilities.

### **Comment 9-13**

#### **Environmental Justice and Impacted Communities**

The EPA recommends the DOE incorporate a discussion and map of minority and low-income populations in proximity to each proposed action. We recommend utilization of the Environmental Justice Mapping and Screening Tool, EJSCREEN, which has environmental and demographic data and is available at: <https://www.epa.gov/ejscreen>. Additionally, the NEPA Assist Tool is available for use in the environmental review process and can be located at: <https://www.epa.gov/nepa/nepassist>.

**Response:**

In response to EPA's comment, DOE used the EJSCREEN mapping tool to identify environmental and demographic data for each site. The environmental justice sections of Chapter 3 (Affected Environment) have been updated with this additional information regarding the existence of communities with environmental justice concerns in proximity to the alternatives considered for the Proposed Action.

**Comment 9-14**

The EPA recommends the DOE discusses a cumulative effects analysis (e.g., land ownership and values; air and water quality and resources; subsistence fishing; socioeconomics; and community resiliency) the proposed action will have on minority and low-income populations in the surrounding area of each proposed facility and the region of influence (ROI). Additionally, we recommend the DOE coordinates with state and local governments for any foreseeable environmental trends or planned actions (e.g., transportation infrastructure and economic development) in the surrounding areas and the ROI.

**Response:**

Section 2.9.13 of this SEIS-II summarizes the cumulative effects analysis from the respective sections in Chapter 4 (i.e., Sections 4.x.12, where "x" is the section number corresponding to the alternative site) and states:

*"Chapter 4 of this SEIS-II evaluates reasonably foreseeable environmental trends and planned actions within the regions of influence for each of the alternative sites. Considering the negligible-to-low potential impacts of the Proposed Action, the potential contribution of the Proposed Action to the cumulative impacts to the region were shown to be negligible. Additionally, all of the proposed alternative facilities are existing facilities that have or could obtain permits for storage of hazardous waste."*

This SEIS-II did not identify any high impacts to any sector of the population. Any potentially adverse impacts were identified to be small or negligible. The level of analyses recommended would not be in proportion to the potential impact.

**Comment 9-15**

Where a permit modification is required to store elemental mercury at the proposed facilities, the EPA recommends the DOE ensures that minority and low-income populations are provided an opportunity to also engage early in the permitting process to have their comments or concerns addressed prior to issuance of permit(s). We recommend the DOE coordinates with applicable state and local governments regarding any concerns the communities have with the proposed facilities.

**Response:**

DOE's preference is to designate an existing, permitted facility for long-term management and storage of elemental mercury. DOE is not seeking to modify existing permits other than to possibly be a co-permittee in conjunction with a current permittee. Where a permit modification may be required to store elemental mercury, as a responsible party and possible co-permittee, DOE would support any Federal, state, or local requirements for public input regarding the permit modification and revision process. Members of the public, including communities with environmental justice concerns, would be able to engage in the review process as allowed by the regulations and permitting processes.

**Comment 9-16**

We recommend the DOE incorporates a discussion that address emergency procedures and a contingency plan to ensure safety measures are put in place when elemental mercury is being transported through environmental justice and impacted communities, unforeseeable natural disasters occur (e.g., flooding and tornadoes), and other events.

**Response:**

See response to Comment 9-3. The DOE 2023 Interim Guidance for storage of elemental mercury discusses the regulatory requirements related to the facility's preparedness, prevention, and emergency procedures, as appropriate. In general, emergency procedures and contingency planning are elements of the permitting process that may differ from state to state. The permitting process for each state is outside of DOE's scope for NEPA analysis.

Standards for the transportation of elemental mercury are described in Section 3 of DOE's 2023 Interim Guidance and are implemented according to DOT's requirements. Both EPA and DOT were consulted during the preparation of the 2023 Interim Guidance.

**Comment 9-17**

The proposed facilities are existing commercial facilities with containment systems and current operations. The EPA recommends the DOE discusses the available capacity of existing containment systems and the proposed additional capacity needed for long-term management and storage of elemental mercury, to ensure adequate containment and prevention of a release into the environment and exposure pathways to communities due to natural disasters, climate change, operations, and other events. Further, we recommend the DOE discusses the proposed facilities' operations, compliance status, citizen complaints, and other aspects, as appropriate, to ensure minority and low-income populations and communities are not exposed to hazards from each proposed facility currently and the proposed action.

**Response:**

The capacities of spill containment systems at each proposed alternative facility are subject to regulatory permitting requirements for the types and quantities of waste stored. DOE would only utilize a facility that has or can obtain a RCRA permit and is authorized, by EPA or the State, to manage and store elemental mercury. The requirements for spill containment are described in

Section 5.1.4 of the 2023 Interim Guidance. Should DOE designate one or more of the alternative sites evaluated in the Mercury Storage SEIS-II for long-term management and storage of elemental mercury, any berms or other spill containment systems would be required to contain, at a minimum, 10 percent of the volume of the containers or the volume of the largest container, whichever is greater, in accordance with 40 CFR § 264.175(b)(3). However, if the building fire protection system uses water sprinklers, the containment capacity would be sized to accommodate this volume as well as to mitigate the risk of overflow and release of elemental mercury. Proposed facilities' operations, compliance status, and citizen complaints are part of the states' permitting authority. The environmental justice sections of Chapter 3 (Affected Environment) have been updated with additional information regarding the existence of communities with environmental justice concerns in proximity to the alternatives considered for the Proposed Action.

### **Comment 9-18**

#### **Consultation with Tribal Governments**

The EPA recommends the DOE ensures compliance with Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*, as applicable.

#### **Response:**

Executive Order 13175 applies to regulations, legislative comments or proposed legislation, and other policy statements or actions with tribal implications, which are defined as having substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. DOE's proposal to provide long-term management and storage of elemental mercury at existing, permitted facilities would not have substantial tribal implications as defined in Executive Order 13175. In Chapter 3 of this SEIS-II, DOE discusses the proximity of any tribal lands to the various alternatives (see sections 3.x.6.2). Tribes are identified in Nevada, Texas, and Utah.

#### ***Tennessee Department of Environment and Conservation***

### **Comment 10-1**

TDEC notes that natural and social characteristics of the two Tennessee sites described in the Draft EIS present challenges for long-term storage of elemental mercury while protecting human health and the environment. First, the karst geology of both eastern and middle Tennessee where these sites are proposed makes both sites poor candidates for long-term storage of elemental mercury. The karst bedrock (typically limestone that erodes away with dissolution, producing caves, sink holes, etc.) can facilitate and maximize subsurface contaminant transport in the event of a release. The shallow proximity to groundwater and subsequent drinking water sources could make potential spills imminently dangerous to the environment and local populations. Other states, particularly those in the western U.S. where distances to groundwater greatly exceeds that in Tennessee, provide better, safer alternatives with more favorable geology.

The hydrogeologic features near the Kingston site (Perma-Fix DSSI) are of particular concern, as the karst terrain and shallow ground water table greatly increase the risks associated with any potential release into the environment. Elemental mercury released into the environment can find

its way to groundwater and surface water where it could then be converted to methylmercury, which is then readily bioaccumulated.

**Response:**

The DSSI facility is currently permitted to store hazardous waste, including mercury. The potential for release of mercury to the environment would be via opening the containers, processing mercury, or failure of the storage container. The mercury containers would not be routinely opened at the storage facility, and there would be no mercury processing under DOE's Proposed Action. Containers would be verified to comply with DOT and RCRA requirements as described in the 2023 Interim Guidance, Section 2.2.3.2 (see Section 2.1.4 of this SEIS-II), and storage operators would verify container integrity upon receipt. Therefore, release of mercury to the environment would be highly unlikely. The facility would be operated in compliance with the permit conditions based on RCRA. DOE would consult and confirm with the permitting authority, TDEC, that the site is appropriately permitted for long-term management and storage of elemental mercury.

DOE acknowledges the commenter's preference for sites outside of Tennessee.

**Comment 10-2**

The Kingston site is located near DOE's Oak Ridge Reservation, which has already released a great deal of elemental mercury into the environment. Many of the creeks, rivers and reservoirs in the area are currently listed on the state's Clean Water Act (CWA) 303 (d) list for methylmercury, and many of the area surface waters have active fishing restrictions and fish tissues advisories due to bioaccumulation of methylmercury.<sup>1</sup> Further, the Kingston site is located near the Kingston Fossil Plant coal ash spill that occurred on December 22, 2008. This spill released over 1 billion gallons of coal ash slurry into the surrounding land and water, leading to remediation damages of over \$1 billion. Selection of the Kingston location poses potential risk of enhanced cumulative impacts to the already-burdened community surrounding DOE's Oak Ridge Reservation and subject to the Kingston coal ash spill.

<sup>1</sup> See *Final 2022 List of Impaired and Threatened Waters in Tennessee*; [https://www.tn.gov/content/dam/tn/environment/water/watershed-planning/wr\\_wq\\_fish-advisories.pdf](https://www.tn.gov/content/dam/tn/environment/water/watershed-planning/wr_wq_fish-advisories.pdf).

**Response:**

See response to Comment 10-1.

**Comment 10-3**

TDEC is also concerned by both the Kingston and Greenbrier site proximity to nearby population centers. Over 12,000 people live within a five-mile radius of the Kingston facility, and nearly 25,000 people live within a five-mile radius of the Greenbrier facility.<sup>2</sup> These surrounding population totals are much higher than all but one of the proposed storage locations outside of Tennessee. The disparity in surrounding community exposure risk is particularly stark when comparing the proposed Tennessee storage locations to Hawthorne Army Depot in Hawthorne,

Nevada (Alternative 1) and Waste Control Specialists in Andrews, Texas (Alternative 2), which have five-mile radius populations of approximately 541 and 170, respectively.

<sup>2</sup> United States Environmental Protection Agency. 2022 Version. EJScreen. Retrieved: August 26, 2022 ([www.epa.gov/ejscreen](http://www.epa.gov/ejscreen)).

**Response:**

See response to Comment 10-1. DOE acknowledges the commenter's preference for storage locations with a lower population density.

**Comment 10-4**

Selection of either Tennessee location will require close coordination between all the appropriate TDEC Bureau of Environment Divisions to assure that regulatory requirements are met. If either of the Tennessee locations are selected, TDEC provides the following additional comments pertaining to TDEC's regulatory structure.

**Response:**

DOE worked with states during the development of the 2009 Interim Guidance and has recently revised the Interim Guidance. As part of that revision, DOE consulted with EPA and DOT and issued the draft Interim Guidance through a *Federal Register* notice (as described in Section 2.1.4 of this SEIS-II), inviting input from the public, states, and others. A Notice of Availability for the Final Interim Guidance was published in the *Federal Register* on September 20, 2023 (88 FR 64897). DOE would consult and closely coordinate with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury.

**Comment 10-5**

**Air Pollution Control**

If a new air pollution source will be built or changes to an existing source will occur at the Clean Harbors (Greenbrier) facility, the Tennessee Air Pollution Control Regulations (TAPCR) require that application for the new source or modification be made not less than 90 days prior to the estimated start date of construction. If a new air pollution source will be built or changes to an existing source will occur at the Perma-Fix DSSI (Kingston) facility, the TAPCR may require a new construction permit or a Title V operating permit modification. Application for the new source or modification must be made in accordance with the appropriate rule. TDEC recommends that DOE contact the TDEC Division of Air Pollution Control early in the project planning process if DOE requires assistance in determining the correct permitting options for this project.

**Response:**

DOE would expect the facility operator to comply with all Tennessee Air Pollution Control Regulations if Clean Harbors Greenbrier or Perma-Fix DSSI were selected as a designated storage facility. DOE would consult and closely coordinate with the specific state regulator prior to

designation of an existing, permitted facility for long-term management and storage of elemental mercury.

#### **Comment 10-6**

##### **Solid Waste Management**

Although the Draft EIS uses the term “RCRA-permitted” in reference to both Tennessee facilities, the Resource Conservation and Recovery Act (RCRA) at the federal level does not directly apply within Tennessee. Rather, regulatory authority over hazardous waste facilities is exercised through the Division of Solid Waste Management (DSWM) in TDEC, which has authorization from EPA based on RCRA at the federal level.<sup>3</sup> The permits are issued by the state authorized program, which operates within Tennessee “in lieu of” the federal program. TDEC seeks clarification on several issues identified in the Draft EIS and offers some concerns:

<sup>3</sup> 42 USC §6926

##### **Response:**

DOE acknowledges that the regulatory authority for hazardous waste storage facilities in Tennessee is exercised through TDEC and that the permits for hazardous waste management and storage facilities are authorized by TDEC in lieu of RCRA. DOE would consult and closely coordinate with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury.

#### **Comment 10-7**

**Coordination between Federal and State Regulatory Structures:** Both Tennessee facilities have state permits. If DOE leases part of the facility, what would be the “DOE facility”? Would a DOE-leased area remain under the state permit and be approved as a modification? If the DOE-leased area is not under the state permit, would the remainder of the state permit remain effective for other areas not exclusively dedicated to storage of elemental mercury? Would the remainder of the facility remain subject to the financial assurance requirements now in place and not be covered by the exemption applied to the federal government?

##### **Response:**

DOE anticipates that only the leased area of the facility would be the DOE facility under MEBA, and the leased area, as well as the rest of the facility, would remain subject to the state permit, including any required modifications. DOE does not anticipate that the permit for the DOE facility would have any effect on the remainder of the facility or the permit under which it operates.

#### **Comment 10-8**

**Unique Risks and Characteristics of Permanent Storage:** While it is understood that the elemental mercury subject to MEBA and removed from commerce would be in effect “abandoned” and, hence, become a hazardous waste, the regulatory scheme of RCRA includes the Land Disposal Restrictions (LDR) program, which places limitations on long-term storage without treatment.<sup>4</sup> Notwithstanding the language in the legislation that would limit operation of this

RCRA “storage prohibition” to the DOE repository, the underlying policy considerations against storage without treatment remain.<sup>5</sup> Because treatment and disposal, not long-term storage, are the policy goals, storage of elemental mercury without treatment is problematic even at a permitted facility. The proposed long-term storage is tantamount to disposal, and neither of the Tennessee sites have been evaluated for disposal criteria. While the permitted facilities do have features such as containerization and inspection and secondary containment and security and emergency planning under the regulatory criteria, the same regulations do not consider the necessary characteristics for permanent storage at these facilities. Time exacerbates risks. The elemental mercury would remain in a mobile form and the facility would be subject to risks such as a security breach or natural disaster that could cause a release.

<sup>4</sup> 42 USC §6924(d)(1)

<sup>5</sup> TDEC also notes that the exemption in the MEBA statute references only the federal law, and the issue is reserved to evaluate preemptive effect on state law in a RCRA - authorized state program.

### **Response:**

DOE disagrees that the proposed long-term storage is tantamount to disposal or that the storage is “permanent.” MEBA directs DOE to provide for long-term management and storage of elemental mercury within the context of RCRA, as amended. DOE’s interpretation of “management” includes treatment and disposal. This interpretation is based on 42 U.S.C. §§ 6903(7) and (33), which state:

42 U.S.C. § 6903 (7) – The term “hazardous waste management” means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

42 U.S.C. § 6903 (33) – The term “storage,” when used in connection with hazardous waste, means the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste.

As identified in Section 2.1.1 of this SEIS-II, treatment and disposal after storage is an element of DOE’s Proposed Action; however, analysis of the specific impacts of treatment and disposal are speculative until EPA approval. Section 2.1.1 also acknowledges that a petition has been filed with EPA for a proposed treatment and disposal method. Once a treatment method for mercury is approved and potential location(s) for land disposal are identified, DOE would evaluate, as appropriate, treatment and disposal actions related to elemental mercury stored in the DOE-designated facility under a separate NEPA review. DOE has a duty to designate a facility for long-term management and storage, and this mandate is independent of EPA’s pending action. Although the petition being evaluated by EPA has yet to be approved, it offers a potential treatment and disposal path forward such that storage would not be permanent and the long-term storage facility would not be for disposal. Based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years.

Further, the elemental mercury is not being stored “without treatment.” As stated in the 2023 Interim Guidance, containers to be managed at the facility are subject to applicable RCRA regulations related to treatment standards and RCRA and DOT regulations related to compatibility

of the waste with the containers of elemental mercury that are designed to ensure that the integrity of the containers would not be compromised.

### *Utah Department of Environmental Quality*

#### **Comment 11-1**

Particularly, we want to emphasize that it is necessary to directly involve all states being proposed to host long-term mercury storage facilities, or within a transportation corridor, in the decision-making process. Consistent with the longstanding position of the State of Utah, we would like to be clear that it is a states' right to determine what is in their own best interests.

“U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury” (2009)<sup>i</sup> states that the Secretary of Energy shall designate a DOE facility or facilities for the purpose of long-term management and storage of elemental mercury generated within the United States. This guidance also asserts that the facility designated by DOE shall be operational and shall accept custody of elemental mercury. Page 2-4 of that Interim Guidance asserts that it was prepared after consultation with U.S. EPA and all appropriate state agencies in affected states. However, at that time, Utah was not considered to be an affected States.

DOE is now proposing to designate one or more facilities for the long-term management and storage of elemental mercury in accordance with the 2008 Mercury Export Ban Act (MEBA). An evaluation of facilities conducted by DOE identified the following sites as candidate locations for the long-term mercury storage facility:

- HWAD in Hawthorne, Nevada;
- WCS site near Andrews, Texas;
- Bethlehem Apparatus Company, in Bethlehem, Pennsylvania;
- Perma-Fix Diversified Scientific Services, Inc., in Kingston, Tennessee;
- Veolia in Gum Springs, Arkansas; and
- Clean Harbors (facilities in Pecatonica, Illinois; Greenbrier, Tennessee; and **Tooele, Utah**).

This letter is regarding the Clean Harbors Grassy Mountain Facility (CHGM) located in Tooele, Utah. It is essential that the governor and representatives of the potentially affected State be part of any decision-making process regarding the acceptability of a long-term storage of elemental mercury within their State, regardless of whether the facility is located on private, federal, or Tribal land. Allowing states to have a decisional approval role for any long-term storage facility of a highly toxic element located within its boundaries will ensure that the rights of states are left intact. It will also engender trust and confidence in the environmental processes of major federal actions.

Summary: Include the governor and representatives of Utah in the decision-making process.

<sup>i</sup> U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, NS Long-Term Storage of Elemental Mercury, November 13, 2009. Prepared for U.S. Department of Energy, Office of Environmental Management. Prepared by Oak Ridge National Laboratory Contract DE-AC05-00OR22725.

**Response:**

The Clean Harbors Grassy Mountain site was not a potential alternative when the initial Interim Guidance was prepared in 2009. Although Utah was not one of the states originally contacted regarding the 2009 Interim Guidance, DOE worked with states to develop the guidance. DOE has recently revised the Interim Guidance. As part of that revision, DOE consulted with EPA and DOT and issued the draft 2023 Interim Guidance through a *Federal Register* notice (as described in Section 2.1.4 of this SEIS-II) to obtain public and state regulator input, including Utah. DOE did not receive any comments from the State of Utah on the revisions to the Interim Guidance. A Notice of Availability for the Final Interim Guidance was published in the *Federal Register* on September 20, 2023 (88 FR 64897).

DOE would also consult with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury. In the update to the guidance, DOE states:

*“In summary, this guidance document is not a regulation, but a compilation of key existing requirements that support the safe handling, packaging, transportation, receipt, and storage (short-term and long-term) of elemental mercury. It does not change or substitute for any statutory or regulatory provisions.”*

Any facility selected will be subject to the requirements of RCRA or those of authorized states.

**Comment 11-2**

On July 5, 2022, the Environmental Council of States (ECOS) issued a resolution addressing mercury that requested DOE expedite siting and operation of the MEBA mercury storage facility and ensure its safety in full consultation with all state and local governments that are potential host sites for the repository as well as all parties currently hosting temporary storage facilities. The letter also requests that the federal government ensure the safety of any interim transport and storage of excess commodity mercury pending completion of the MEBA storage facility, and that the federal government cover any State planning, oversight, and/or implementation expenses that may be incurred. ECOS requests that the U.S. EPA expedite promulgation of a revised reporting rule and implement the court decision regarding its mercury reporting rule. ECOS also requests that the U.S. EPA publish all mercury reporting information received under Lautenberg,<sup>ii</sup> so that all interested parties have complete, transparent, and accurate data to make informed decisions and to appropriately control and eliminate mercury uses and release. ECOS and the Division strongly encourage the federal government to provide resources, policies, and regulations sufficient to effectively implement and assess results of the international mercury partnerships and the Minamata Convention on Mercury.<sup>iii</sup>

Summary: Ensure the safety of any interim transport and storage. Provide resources, policies, and regulations sufficient to implement and assess the impact.

<sup>ii</sup> <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-century-act-4>

<sup>iii</sup> <https://www.epa.gov/international-cooperation/minamata-convention-mercury>

**Response:**

The Department acknowledges the commenter's and the ECOS's request to expedite siting and operation of the DOE-designated storage facility. Safety associated with the transport and storage of mercury, like other hazardous materials, is achieved via compliance with (1) existing statutes, including RCRA, (2) relevant regulations, including DOT and EPA regulations, and (3) state and local laws and other requirements, including state-issued facility permits. The commenter's request for additional information and actions from EPA as well as for coverage of State implementation expenses is outside of the scope of this SEIS-II.

Similarly, the request for "the Federal Government to provide resources, policies, and regulations sufficient to effectively implement and assess results of the international mercury partnerships and the Minamata Convention on Mercury" is outside the scope of this SEIS-II.

**Comment 11-3**

The Minamata guideline on the environmentally sound interim storage of mercury from December 2018 suggests that when locating storage for mercury, environmental, technical, and social factors should be considered, including the importance of understanding any potential environmental, health and/or social impacts. The site of the storage facility should, where practicable, be chosen in conformity with geological, hydrological, hydrogeological, biological, ecological, meteorological, and political criteria. Special safety measures should be considered in storage facilities located in geologically unstable areas such as seismically active areas or near environmentally sensitive areas, especially areas with threatened or endangered species; these considerations would apply to a Utah location. For these facilities, additional engineering and risk management measures would need to be put in place. Additionally, public consultations should be held when adverse impacts on human health and the environment are involved to inform the local community about siting criteria and procedures for mitigating potential human health and environmental risks related to interim storage of mercury. Including, for example, emergency response plans in the event of an incident. In summary, there are many factors that must be carefully considered when selecting a site location.

Summary: Consider geological, hydrological, hydrogeological, biological, ecological, meteorological, and political criteria.

**Response:**

The provisions of MEBA, as amended by the *Chemical Safety Act of 2016*, represent, in part, the Federal Government's response to the global concerns associated with mercury pollution. The Interim Guidance DOE published in 2023 includes best management practices taken from various technical guidelines resulting from the Minamata Convention and United Nations Environment Programme (UNEP) Basel Convention and related working groups. Implementation of the requirements of RCRA, state-issued permits, and best management practices would support environmentally sound, long-term storage of elemental mercury.

This SEIS-II evaluates eight alternative sites with existing facilities. Any proposed existing facility would be verified to meet permit conditions prior to use as a facility for long-term management and storage of elemental mercury. Where a permit modification may be required to

store elemental mercury, as a responsible party, DOE would adhere to any Federal, state, or local requirements for public input regarding the permit modification and revision process. Members of the public would be able to engage in the review process as allowed by the state regulations and permitting processes.

The DOE-designated management and storage facility permit is expected to address emergency preparedness and prevention plans and procedures per RCRA and Occupational Safety and Health Act requirements. The requirements governing emergency preparedness and contingency planning for facilities managing hazardous wastes are described in 40 CFR Parts 264/265, Subpart D, and 29 CFR Part 1910, Subpart E. For example, Subpart D of 40 CFR Part 264 (i.e., 40 CFR §§ 264.50–.56) describes **Contingency Plan and Emergency Procedures** applicable to owners and operators of hazardous waste facilities. In 40 CFR § 264.54, **Amendment of contingency plan**, the contingency plan for a facility must be reviewed, and immediately amended, if necessary whenever

*“(a) The facility permit is revised; (b) The plan fails in an emergency; (c) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency; (d) The list of emergency coordinators changes; or (e) The list of emergency equipment changes.”*

In selecting an alternative, DOE will consider the impacts analyzed in this SEIS-II, including those referenced in the comment, in addition to other considerations (e.g., cost and schedule).

#### **Comment 11-4**

Regarding the proposed CHGM site located in Tooele, Utah, in comparison to the other seven alternative choices, CHGM has the fourth largest property size with the smallest developed footprint, smallest building size, and second to smallest available storage space. CHGM is currently permitted for temporary storage (1 year) of 1,713 metric tons of elemental mercury. DOE is estimating that CHGM only has a total mercury storage capacity at the ‘Drain and Flush Building Warehouse One’ of 900 metric tons; far short of the total inventory of elemental mercury that is projected for the next 40 years at 10,000 metric tons. In the August 19, 2020 letter to The Honorable Dan Brouillette, titled MEBA Long-Term Management and Storage of Elemental Mercury, sent from Matthew Sauvageau, Vice President Environmental Compliance, Clean Harbors Environmental Services, Inc. (CHES), CHES stated that CHGM met all requirements required by MEBA. Yet, this letter only acknowledged the equipment necessary and CHGM’s current permit as a Treatment, Storage, and Disposal Facility.

#### **Response:**

The Department acknowledges that the potential capacity of the analyzed alternatives ranges from 900 metric tons to well over the estimated maximum of 7,000 metric tons. Clean Harbors Grassy Mountain was included in the list of reasonable alternatives primarily because, if employed in concert with other facilities (in different geographic locations), it could represent a geographical benefit to DOE by providing a potential storage location near the source of the majority of mercury

generation (Nevada). If implemented in this fashion and mercury could be shipped directly from Nevada to Utah, risks associated with transportation could be minimized. DOE could consider a site's geographic location as well as its storage capacity when selecting an alternative for designation.

As noted earlier, DOE would consult with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury.

The letter referenced in the comment was a certification required by MEBA for TSDFs that store mercury before DOE's long-term management and storage facility becomes available, which Clean Harbors Grassy Mountain does. It certifies that the facility will ship the mercury to the designated Federal facility when it is able to accept the mercury and it will not sell or otherwise place the mercury into commerce. The letter is not intended to serve any other purpose related to long-term storage,

### **Comment 11-5**

Geologic Hazards. The DOE calculated the seismic risk prior to the March 2020 earthquake in Magna, Utah. This earthquake had a magnitude 5.7 and 2,589 associated aftershocks. Since that earthquake, multiple research papers have concluded that ground shaking may be higher than previously estimated for future earthquakes. The Wasatch Front is at risk of a magnitude 7.0 to 7.6 earthquake occurring [sic].<sup>iv</sup> The calculations from the DOE SEIS-II previously evaluated CHGM third highest of seismic risk, peak ground acceleration. This issue requires a higher evaluation of risk, and based on this new evidence, the State of Utah would like to have more information about how seismic risk will be accounted for in the final decisions.

Summary: Evaluate geologic hazards, water resources, and ecological resources at a higher risk in Utah.

<sup>iv</sup> <https://earthquakes.utah.gov/magna-quake/>

### **Response:**

The USGS seismic information used by DOE to evaluate risk at the Clean Harbors Grassy Mountain site included the series of earthquakes that occurred in 2020 at Magna, Utah located approximately 60 miles east of the Grassy Mountain facility. This SEIS-II also uses the latest probabilistic peak ground acceleration (PGA) data from the USGS to assess seismic hazard among the various mercury storage candidate sites, including the Clean Harbors Grassy Mountain site. The PGA values cited are based on a 2-percent probability of exceedance in 50 years. This corresponds to an annual probability (chance) of occurrence of about 1 in 2,500. For the Grassy Mountain site location, the calculated PGA is approximately 0.16 g, which takes into consideration all potential earthquakes in the vicinity that may have an effect at the Grassy Mountain location.

DOE acknowledges that larger earthquakes and greater potential ground accelerations could be present along the Wasatch Front east of Salt Lake City approximately 75 miles away. However, the potential seismic risk to the Grassy Mountain facility and the sparsely populated area surrounding the site would be low.

Section 3.7.2.2 of this SEIS-II has been modified to acknowledge the series of earthquakes that occurred in Magna, Utah, in 2020.

**Comment 11-6**

Water Resources. The DOE SEIS-II did not account for average depth to groundwater. Groundwater depth is shallow at CHGM (13 feet or less). This issue requires a higher evaluation of risk.

Summary: Evaluate geologic hazards, water resources, and ecological resources at a higher risk in Utah.

**Response:**

Section 3.7.3.2 of this SEIS-II has been updated with additional information related to depth to groundwater. The conclusion provided in Section 4.8.3.2 is still accurate. Engineered (e.g., spill containment pallets, berms, and sealed floors) and operational controls (e.g., emergency and spill response procedures, training, and equipment) would prevent release of mercury from the building. Recharge to the saline aquifers is slow because annual precipitation is less than four inches. No impact to groundwater is expected under the Proposed Action.

**Comment 11-7**

Ecological Resources. In the 2021 U.S. Fish and Wildlife Service (USFWS) report cited by the DOE,<sup>v</sup> only the lack of bald and golden eagles and migratory birds at the CHGM site was considered. However, the Bureau of Land Management (BLM) acknowledges the following species in Tooele County: burrowing owl, ferruginous hawk, greater sage-grouse, Lewis's woodpecker, short-eared owl, Allen's big-eared bat, dark kangaroo mouse, kit fox, pygmy rabbit, Townsend's big-ear bat. BLM also acknowledges the following sensitive plants in Tooele County: Pohl's Milkvetch and Dunes Four-Wing Saltbush. Identifying which species occur in an area affected by an action can be accomplished through literature reviews and coordination with appropriate federal and state regulatory agency representatives, resource managers, and other knowledgeable experts. It is easy to dismiss the amount of life in a barren desert, hence their sensitivity for survival is that much more imperative. This issue requires a higher evaluation of risk.

Summary: Evaluate geologic hazards, water resources, and ecological resources at a higher risk in Utah.

<sup>v</sup> <https://ipac.ecosphere.fws.gov/location/OV634OPTCRED5LSLPLKINZW47Q/resources>

**Response:**

Tooele County covers a large geographic area and, as the commentor stated, contains many ecological resources. In the discussion of the Affected Environment, the SEIS-II acknowledged that other species would occur nearby. However, the Clean Harbors Grassy Mountain site is located within a hazardous waste disposal facility and is surrounded by waste disposal landfills and is completely disturbed. As described in Section 3.7.5 of this SEIS-II, the surrounding area

within the Clean Harbors Grassy Mountain facility does not contain significant ecological resources that would be impacted. The species discussed in this SEIS-II are protected avian species that could fly through or over the area but would be unlikely to use the area. Just because a species occurs in Tooele County does not mean that it would occur in the region of influence .

### **Comment 11-8**

The success of community engagement around the selection of a long-term storage facility should be measured by:

- Whether the state has a decisional role in siting the facility.
- The degree to which participating parties have expertise with and have a track record of competently designing and managing elemental mercury waste storage facilities for long term storage.
- The degree the licensing authority (The Utah Department of Environmental Quality, The Division of Waste Management and Radiation Control) that has been engaged in the SEIS process can exhibit that the best interests of that community are at the forefront of the decision.
- The ability of technical experts to effectively communicate the applicability of regulations, safety concerns, and other technical topics to the general public.
- Adherence to the principle that the potential hosting community will benefit from the meaningful involvements in the selection process.

The Division, as the licensing and regulatory oversight agency, must have an active role in approval of long-term storage facilities located within the State to ensure that health, safety, and environmental concerns are adequately addressed. Utah requires that the DOE's SEIS-II process present an opportunity for the greater community of Utah to strengthen its capacity to respond to and address the technical aspects of a long-term storage solution for elemental mercury. Utah agrees there is no higher priority than protecting public health and ensuring and safeguarding Utah's air, land, and water through balanced regulation. The fact that mercury is a highly toxic element that is found both naturally and as an introduced contaminant in the environment is not disputed. Elemental mercury is a pollutant of environmental concern in the United States and throughout the world. Elemental mercury can be transformed in the environment into methylmercury, which can be highly toxic and bioaccumulate in fish consumed by humans, which has known neurotoxicity. Mercury is a particularly serious problem for pregnant women and children. Fetuses and young children suffer the greatest risk because their nervous systems are still developing. Of note, Utah is home to the youngest population in the country with the highest birth rate.

Summary: Consider environmental health and social impacts on young populations.

### **Response:**

The 2011 Mercury Storage EIS, 2013 Mercury Storage SEIS, and the draft Mercury Storage SEIS-II acknowledge and describe the toxic nature of elemental mercury and evaluate the potential environmental impacts of transportation, management, and storage at existing, permitted locations

in compliance with MEBA. (See Appendix D of the 2011 Mercury Storage EIS, which is referenced in Section 4.2.9.1 of this SEIS-II when addressing toxicity of methylmercury).

Section 4.2.9.1 of this SEIS-II describes the definition and derivation of severity levels (SLs) I through IV for human receptors. The SLs are related to EPA's Acute Exposure Guideline Levels (AEGs), the American Conference of Governmental Industrial Hygienists threshold limit values, and DOE's Protective Action Criteria (PACs). As described in that section, there are three AEGs. They represent threshold exposure limits for the general public and are applicable to emergency exposure periods ranging from 10 minutes to 8 hours. DOE states that the recommended exposure levels protect the general population, including infants and children and other individuals who may be susceptible.

As noted earlier, DOE would consult with the specific state regulator prior to designation of an existing, permitted facility for long-term management and storage of elemental mercury. Where a permit modification may be required to store elemental mercury, as a responsible party, DOE would support any Federal, state, or local requirements for public input regarding the permit modification and revision process. Members of the public would be able to engage in the review process as allowed by the state regulations and permitting processes.

#### **Comment 11-9**

DOE must also consider social equity (or inequity) from the perspective of a State that produces limited quantities of the highly toxic elemental mercury. Projects of annual generation of mercury subject to MEBA from mining range from 128 metric tons per year in 2011 to 126 metric tons per year in 2013. Projects for mercury produced by Nevada ore processes are 95 to 99% of the total. The broad scope of impacts needs to be balanced by both short-and long-term benefits. Precious Metals Recovery LLC has spent millions of dollars to pinpoint the ideal location for a Treatment Storage Facility for calomel, activated carbon, and elemental mercury. It seems logical to co-locate the repository at the source of generation, thereby eliminating any environmental and safety issues with unnecessary handling of the elemental mercury and long-haul transportation. In DOE's own words from the Office of NEPA Policy and Compliance, "Do not overlook reasonable technology, transportation, or siting alternatives, including off-site alternatives."<sup>vi</sup> The permit number for the above-mentioned is RCRA Permit NEVHW0034, EPA ID Number NVR000088542. It is the DOE's responsibility to ensure that this social inequity and increase in risks from unnecessary handling and transportation is addressed appropriately.

Summary: Consider environmental, technical, and social factors, including social equity and environmental justice.

<sup>vi</sup> *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements*, Second Edition, December 2004. DOE, Office of NEPA Policy and Compliance.

#### **Response:**

Section 2.2 of the Mercury Storage SEIS-II identifies the process used to identify the range of reasonable alternatives for existing, permitted facilities capable of providing long-term management and storage of Mercury for DOE.

The commenter is referring to the Dry Hills Facility in Nevada where the company planned to convert calomel to elemental mercury, purify elemental mercury and retort carbon beds for mercury recovery. The purified elemental mercury expected to be produced from this proposed facility was then planned to be sent to the DOE-designated storage facility for long-term management and storage. A permit application was submitted to the State of Nevada Department of Environmental Protection in March 2013. A draft permit for construction and operation of the facility was approved by the Department of Environmental Protection in 2019, however, this facility has not been constructed.

DOE acknowledges the commenter's concerns regarding social inequity. Sections 4.8.10 and 4.8.11 of this SEIS-II address the potential socioeconomic and environmental justice impacts, respectively, of implementing the Proposed Action at the Clean Harbors Grassy Mountain facility.

### **Comment 11-10**

Moreover, the Division supports comprehensively addressing social equity and environmental justice issues. Environmental justice issues often arise but are not effectively addressed during the process of selecting a disposal site. The State of Utah believes that DOE needs to further evaluate the impact on the Confederated Tribe of the Goshutes and the Skull Valley Band Goshutes.

Summary: Consider environmental, technical, and social factors, including social equity and environmental justice.

### **Response:**

The Mercury Storage SEIS-II is not evaluating potential sites for disposal of the elemental mercury or its compounds. As discussed in Section 2.1.1 of this SEIS-II, there still is no EPA-approved treatment method for nonradioactive mercury for eventual disposal in the United States. If a treatment method for mercury is approved and potential location(s) for land disposal are identified, DOE would evaluate, as appropriate, treatment and disposal actions related to elemental mercury stored in the DOE-designated facility under a separate NEPA review. This additional review would address potential impacts on tribes or other communities with environmental justice concerns that are within the region of influence for the treatment and/or disposal facility locations.

Section 3.7.6.2 of this SEIS-II describes the environmental justice affected environment for the Grassy Mountain site and states:

*“There are five federally recognized tribes or reservation lands in Utah, including tribes of the Shoshone Nation, Goshute, Ute, Paiutes, and Navajo (88 FR 2112; January 12, 2023). The closest tribal land is the Skull Valley Goshute Reservation approximately 35 miles southeast of the Grassy Mountain site. There are no known tribal resources or TCPs [traditional cultural properties] in the immediate vicinity of the Grassy Mountain site.”*

For the potential storage action at the Clean Harbors Grassy Mountain facility, DOE's evaluation of the potential impacts to communities with environmental justice concerns is discussed in Section 4.8.11 of this SEIS-II, which identified that there are no residents within 40 miles of the Grassy Mountain site. As discussed in Sections 4.8.9 and 4.2.10, implementing the Proposed

Action at Clean Harbors Grassy Mountain would result in negligible, offsite human health and ecological risks to both individuals and communities from mercury emissions during normal operations and accidents. Therefore, there would be no disproportionate and adverse impacts to communities with environmental justice concerns (including tribal lands).

### **Comment 11-11**

All these issues require specialized expertise, and Utah is limited to hiring international experts, those who work in academia (but aren't reliant on federal grants), or a select few experts within the United States. Additionally, Utah would end up bearing the financial burden to ensure that all technical and environmental issues would be adequately addressed for permitting. To improve the process, DOE should seek funding for stakeholder participation similar to other state involvement programs.

### **Response:**

This comment is outside the scope of the Mercury Storage SEIS-II.

### ***Roane County Environmental Review Board***

### **Comment 12-1**

Section S.1.1, 2<sup>nd</sup> paragraph: MEBA also authorized DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility to cover certain costs of long-term management and storage:

- a. Does this mean DOE can accept elemental mercury from non-federal entities and charge them these costs?
- b. In doing so, does DOE then store elemental mercury from generators not only with the U.S., but also from countries around the world?

### **Response:**

The requirements in MEBA do not differentiate between accepting mercury from Federal or non-Federal entities and DOE has included both Federal and non-Federal mercury in the potential inventory for management and storage (see Section 2.1.2 of this SEIS-II). As identified in Section 1.2 of the Mercury Storage SEIS-II, MEBA directs DOE to designate a facility (or facilities) of DOE for the long-term management and storage of elemental mercury **generated within the United States** (42 U.S.C. § 6939f(a)(1)) (emphasis added). Therefore, DOE would not be storing mercury generated by other countries.

### **Comment 12-2**

Section 2.1.1, 3<sup>rd</sup> paragraph: MEBA requires DOE to adjust fees for generators temporarily accumulating elemental mercury if the DOE facility is not operational by January 1, 2019. If the DOE facility is not operational by January 1, 2020, DOE must: (1) Immediately accept the conveyance of title to all elemental mercury accumulated on site prior to January 1, 2020.

- a. Has DOE accepted the conveyance of title to all elemental mercury accumulated on site prior to January 1, 2020?
- b. Is DOE storing, or paying the cost of storage of the accumulated mercury for which DOE has title?
- c. Where is the permitted facility in which the mercury named in question (b) above?

**Response:**

Section 1.3 of this SEIS-II discusses the ongoing procurement processes associated with elemental mercury storage. This includes identifying that DOE had issued a Request for Task Order Proposals (RTP) to five contract holders, seeking proposals to provide interim management and storage of the 112 MT of elemental mercury subject to the settlement agreement between DOE and NGM. DOE's understanding is this is the vast majority of the elemental mercury that was in onsite storage at ore processor facilities. Other accumulated mercury (as shown in Section 2.1.2) includes mercury that has been purified and is in storage at permitted TSD facilities that have certified that they will send the mercury to a DOE-designated facility as soon as it is operational but is not subject to DOE taking title. The *Chemical Safety Act of 2016* directs DOE to "accept the conveyance of title to all elemental mercury that has accumulated in facilities in accordance with subsection (g)(2)(D)," which is limited to "generator[s] producing elemental mercury incidentally from the beneficiation or processing of ore or related pollution control activities."

As reported in Section 2.2.3 of the Draft SEIS-II, DOE prepared an Interim Action Determination to accept title to the 112 MT of mercury from the NGM facilities and to provide interim management and storage of that mercury in a permitted facility selected by DOE based on responses to the RTP.

As of the preparation of the Final SEIS-II, the 112 MT of elemental mercury from NGM is still located in Nevada and has not been shipped to an interim storage location. DOE is continuing to work cooperatively with NGM to implement the settlement agreement and ultimately accept the 112 MT of elemental mercury. Although evaluated in an Interim Action Determination and allowed as an interim action, given the current timing, it is unlikely that DOE would implement the actions evaluated in the Interim Action Determination before publishing a ROD for this SEIS-II. After publication of the ROD, the Interim Action Determination would no longer be necessary because management and storage of the 112 MT of elemental mercury would be subject to the ROD.

**Comment 12-3**

Section S.1.2, 8<sup>th</sup> paragraph: On October 14, 2020, DOE issued a Sources Sought Synopsis/Request for Information to identify companies capable of potentially providing (1) leased space for long-term management and storage of elemental mercury generated in the U.S. and (2) associated services necessary for the long-term management and storage of elemental mercury. Since no preferred alternative was designated in the SEIS-II; how was the information from the procurement process used and how did it influence a designation of no preferred alternative?

**Response:**

As stated in Section 2.7 of the Draft SEIS-II, DOE’s preferred alternative is to select one or more of the existing commercial facilities evaluated in this SEIS-II because selection of one or more of these commercial facilities would allow DOE to comply with MEBA most expeditiously and not further exacerbate the missed statutory deadlines. As confirmed in the Final SEIS-II, DOE has not changed this preference. In response to several comments related to DOE’s preferred alternative, DOE has provided additional details in Section 2.7.

Section 2.2 describes the process that DOE used to identify the range of reasonable alternatives. In addition to evaluating the two existing facilities that were still reasonable alternatives from the 2011 Mercury Storage EIS (WCS and HWAD), this Mercury Storage SEIS-II also evaluates other alternative facilities that maintain or would be capable of maintaining a RCRA Part B permit for the long-term management and storage of mercury. DOE used four methods to identify these additional alternatives: (1) DOE contacted commercial facilities that had previously certified to DOE that they meet the requirements to accept and store elemental mercury at least until the DOE-designated facility is operational and accepting shipments of mercury; (2) DOE issued a Sources Sought Synopsis/Request for Information to identify companies to potentially provide leased space and/or associated services for the management and storage of mercury; (3) DOE identified potential alternatives based on those contractors that, independent of the Proposed Action, were awarded basic ordering agreements to conduct nationwide waste management services, including ancillary services such as management and storage of mercury; and (4) DOE used an approach similar to that used during the 2011 EIS to identify potential existing facilities on DOE property that could be repurposed for the management and storage of mercury.

Based on the information received from these sources, this SEIS-II reflects the range of existing facilities that are reasonable alternatives. As stated in Section 3.2 of this SEIS-II, “*Evaluation of an alternative in this SEIS-II does not prejudice any future procurement actions DOE would take to contract services related to long-term management and storage of mercury.*” The designation decision would be based on a combination of factors such as cost, schedule, permitting, risk, policy, procurement requirements, and environmental and technical considerations.

**Comment 12-4**

Section S.2.1.2, 2<sup>nd</sup> paragraph: The second paragraph starts with Table S.2-2.” This appears to be a typo. It should be “Table S-2.

**Response:**

This typographical error has been corrected in Section S.2.1.2.

**Comment 12-5**

Section S.2.1.2, 3<sup>rd</sup> paragraph: For instance, if a treatment and disposal approach were available within 5 years, the total estimated elemental mercury to be accumulated and need storage by that time would be 2,500 MT. The word “were” in the previous sentence should be “was.”

**Response:**

In accordance with the Chicago Manual of Style, the verb “were” is used here in the subjunctive form to express the action as conditional or hypothetical. This is how the phrase was intended.

**Comment 12-6**

Section S.3.7: As most of the sites are existing operational facilities, the incremental increase in utility requirements would be small. The statement that approximately 16,000 gallons of additional sanitary water would be needed to support personnel for mercury operations from Section S.3.3 needs to go here in this section as this is a utility site infrastructure need.

**Response:**

The additional water use (for sanitary purposes) has been included in the respective utilities sections in Chapter 4 of this SEIS-II.

**Comment 12-7**

Section S.3.9, Facility Accidents, 2<sup>nd</sup> paragraph: The probability of a strong earthquake in these areas is unlikely, as peak ground acceleration in these areas are of relatively low seismic activity. Members of the public likely would evacuate from the area immediately, resulting in a reduction to the severity level to the SL-II range.

- a. How would members of the public be notified of the need to evacuate in the case of a mercury storage building total collapse at the Bethlehem Apparatus and Clean Harbors Greenbrier sites?

The Perma-Fix DSSI facility is only 950 ft from the nearest business or residence and the Clean Harbors Pecatonica site is only 607 ft from the nearest business or residence. This SEIS-II needs to address how members of the public would be protected/evacuated in the event of an accident scenario involving mercury storage building collapse with mercury vapor escaping.

**Response:**

RCRA regulations (40 CFR Part 262, Subpart M, §§ 264/265.30–.37 and §§ 264/265.50–.56) establish requirements for preparedness and prevention as well as contingency plans and emergency procedures in order to minimize the impacts to human health or the environment from releases of hazardous constituents or wastes from hazardous waste storage facilities. Details related to these requirements are summarized in DOE’s 2023 Interim Guidance document, including the need to update these plans if new hazards are introduced into the facility. Spills within the facility are not expected to result in environmental releases due to the required containment features. Similarly, the fire protection system is expected to minimize spread of fire through the facility that could result in significant release of mercury vapors. However, if all of these preventative measures fail due to some type of catastrophic event (e.g., seismic event that causes facility failure, which has a very low probability) the emergency preparedness plans are intended to establish protocol for worker evacuation and public communications, in accordance with state regulatory requirements.

**Comment 12-8**

Section S.3.9 Transportation: Transportation risks under all alternatives are a function of the number of miles driven and nature of the accident (fire or no fire). Table S-8 summarizes the consequences and risk to human health receptors under transportation accidents with mercury spills. Table S-8 appears to have some errors in the descriptors as follows: (1) Spill onto ground with SL-I and SL-IV, but says Negligible (SL-IV is most severe), (2) Spill with fire inhalation with SL-III to SL-II, but says Negligible or Low (SL-III is at least moderate), (3) Consumption of methylmercury in fish - dry deposition onto water and Potentially above SL-1/SL-II) but says Negligible (SL-II is low); and (4) Consumption of methylmercury in fish – wet deposition onto water with Potentially above SL-I/SL-II but says Negligible (SL-II is low).

**Response:**

The estimated health risk is a function of both accident frequency and the severity or consequence. What is shown in the Summary Table is the range of consequences that might occur but when combined with the estimated accident frequency results in a negligible or low human health risk (e.g., low frequency but high severity level).

**Comment 12-9**

Section S.3.12 Environmental Justice: There would be no disproportionately high and adverse effects on minority or low-income populations under the Proposed Action at any of the alternative sites. See Comments under Section S.3.9.

**Response:**

Similar to the response to Comment 12-8 (above), the potential accident risk to any individuals (including communities with environmental justice concerns) would be a function of potential consequences and accident frequency. Because the frequency of a beyond-design-basis earthquake is extremely low at all of these locations, the overall accident risk to all communities also is low or negligible.

**Comment 12-10**

Chapter 1, Section 1.2, Page 1-2: It is identified that DOE will obtain a leasehold interest in any storage facility chosen for use and that any commercially owned facility will afford DOE an appropriate level of responsibility and control over the facility. Since this will factually make DOE responsible for facility operations, if the Perma-Fix DSSI site is chosen will it be added to the current Oak Ridge Reservation annual monitoring report for evaluation of impacts to the local environment (air, surface water, ground water, fish, bird, insects, etc.), as related to the mercury being stored?

**Response:**

If DOE were to designate the Perma-Fix DSSI site as the (or one of the) facility(ies) for long-term management and storage of elemental mercury, the facility would remain independent from the

Oak Ridge Reservation. Any reporting requirements for the facility would be as stipulated in the hazardous waste permit with TDEC.

**Comment 12-11**

Chapter 1, Section 1.2, Page 1-3: Since DOE will be indemnifying the generators of any mercury that is stored in the Perma-Fix DSSI facility, how will DOE assure the public that it will ensure the negative impacts experienced during the TVA ash spill will not be repeated upon the Roane County citizens again?

**Response:**

MEBA, Section 5(e)(1), provides for the indemnification of the generators of the elemental mercury. Specifically, the Act states that except as provided in subparagraph B, “the Secretary of Energy shall hold harmless, defend, and indemnify in full any person who delivers elemental mercury to a designated facility under the program established under subsection (a) from and against any suit, claim, demand or action, liability, judgment, cost, or other fee arising out of any claim for personal injury or property damage (including death, illness, or loss of or damage to property or economic loss) that results from, or is in any manner predicated upon, the release or threatened release of elemental mercury as a result of acts or omissions occurring after such mercury is delivered to a designated facility.”

In most instances, the state regulator would require DOE to be a co-permittee with the facility operator. However, regardless of the permittee status, DOE would maintain the above responsibility for the elemental mercury since DOE would accept custody of the elemental mercury upon acceptance at the designated storage facility. (Also see the responses to Comments 8-4 and 12-7.)

**Comment 12-12**

Chapter 1, Section 1.3, Page 1-6: In Footnote #4, it is mentioned that 1,280 metric tons (1,410.9 tons or 2,821,888 lbs.) of mercury is currently stored as a commodity at the Y-12 facility in Oak Ridge but isn’t included in the projected 40-year projected estimate of 10,000 metric tons of mercury that will require storage. It was also stated that this mercury could be identified as waste in the future. What are the current changes that this material will be deemed “waste” in the future? What is the timeframe for final determination? This is important considering mercury has generated such a large area environmental insult in the Oak Ridge and Oak Ridge Reservation area creeks.

**Response:**

The footnote identified in the comment is related only to the initial inventory cited in the Request for Proposal (1,280 MT). As identified in Section 2.1.2, the 1,206 MT of mercury currently stored at Y-12 is included in the approximately 7,000 MT of elemental mercury evaluated in this Mercury Storage SEIS-II. The NNSA mercury is currently a high-purity commodity and could be used in the future. NNSA’s criteria for when and if to declare any or all of this mercury as waste is outside the scope of this SEIS-II. This SEIS-II evaluates the potential impacts of transporting, managing,

and storing this mercury at each alternative site and also evaluates the potential impacts if it were to stay at Y-12 (the No-Action Alternative).

**Comment 12-13**

Chapter 1, Section 1.2.2, Page 2-1: Mention is made about the potential for EPA to generate Land Disposal Restriction treatment technology that stabilizes elemental mercury extracted from high-level mercury-containing wastes through a process of conversion to mercuric sulfide (HgS) followed by double encapsulation and monofil disposal. What assurances do Roane County citizens have that mercury waste storage at the Perma-Fix DSSI facilities will not be converted onsite from the elemental mercury to HgS form for disposal or packaged and then placed into the new EMDF landfill being planned near Y-12?

**Response:**

In 2020, the EPA received a Petition for Site-Specific Determination of Equivalent Treatment for Elemental Mercury Wastes (D009 and U151) under the Land Disposal Restrictions. The petition is a proposal for treatment and disposal of elemental mercury, with disposal occurring at a site in Nevada. The petition does not involve treatment or disposal in Tennessee. As identified in Section 2.6 of this SEIS-II, should EPA approve a treatment and disposal approach, DOE could then consider transporting the mercury stored at the designated facility(ies) (i.e., the subject of this Mercury Storage SEIS-II) for treatment and ultimate disposal. Prior to taking these actions, DOE would perform an appropriate NEPA review.

**Comment 12-14**

Chapter 2, Section 2.1.3, Page 2-4: A strict dependence on heavy load trucking for movement of the waste shipments has been identified by DOE. As such, have the Department of Transportation (DOT)/County Road Departments for each of the facility locations (such as, Tennessee DOT and Roane County Highway Department for Perma-Fix DSSI facilities in Kingston, Tennessee) been contacted to identify the potential for increased heavy load traffic in the area of the proposed facilities? This heads-up identification could be crucial to ensure inspection of bridge and roadways involved in material movements can be conducted to prevent any scheduled move impacts.

**Response:**

These would not be “heavy load trucks”; they were analyzed as legal-weight trucks similar to any other semi-truck on U.S. highways. Based on the estimated number of truck trips, there would be an average of about 13 legal-weight truck deliveries of mercury per year during the 40-year time period. That would equate to about one truck delivery per month, a number that would be nearly undiscernible from existing traffic. Within the first few years after the DOE-designated storage facility began receiving mercury, there would be a higher number of annual shipments; however, considering that these would be legal-weight trucks and operated in accordance with DOT requirements for shipments of hazardous waste, noticeable impacts would be unlikely.

**Comment 12-15**

Chapter 2, Section 2.3, Table 2-4, Page 2-13: Perma-Fix DSSI column indicates “concrete slab-on-grade floor”. Due to the heavy weight distribution identified (1,200 MT and 1,800 MT) for intended storage, should the floors not be required to be “reinforced concrete slab-on-grade”?

**Response:**

The slab loading capacity of the Perma-Fix DSSI facility has been evaluated by a State of Tennessee registered engineer. The storage capacity of the facility is based on that analysis.

**Comment 12-16**

Chapter 2, Section 2.3.4, Page 2-24: Floor of proposed storage facilities at Perma-Fix DSSI are identified as epoxy sealed and having secondary containment utilizing perimeter curbing. Has Curbing been verified to be of sufficient height to contain material volumes identified in accidental spill scenarios?

**Response:**

The Perma-Fix DSSI *Spill Prevention Control and Countermeasure Plan* lists the secondary containment capacity of the CSB as greater than 23,000 gallons (Table 4-1). Assuming a minimum containment capacity of 23,000 gallons and the weight to volume conversion of elemental mercury, the CSB would have a containment capacity for 1,200 MT of mercury. According to 40 CFR § 264.175(b)(3), containment capacity must be sufficient for 10 percent of the volume of the containers or the volume of the largest container, whichever is greater. However, determining the maximum storage capacity, in the context of containment capacity, would also consider the fire protection system design and potential quantity of deluge water released in any event.

**Comment 12-17**

Chapter 2, Section 2.3.4, Figure 2-9, Page 2-25: The aerial view reflected for Perma-Fix DSSI facility seems to indicate a surface that slopes toward the retention pond in the image, with the storage building planned for use on the highest ground level. Any material release would therefore flow toward this retention pond.

- a. Is the retention pond lined to prevent potential contaminants flowing into groundwater aquifer, which is still used by public for water supply?
- b. Is there any history of pond overtopping, thus higher potential for contaminant to move offsite into other surface water systems?

**Response:**

The stormwater retention pond is manmade and collects runoff from the industrial facilities and paved areas. The pond is designed to accommodate rainfall events without overflow and allow sedimentation of runoff prior to discharge. The pond has an outfall equipped with a shutoff that drains into an unnamed wet weather tributary to Young Creek. Perma-Fix operates under a general

National Pollutant Discharge Elimination System permit for stormwater discharge and follows a Stormwater Pollution Prevention Plan and Spill Prevention, Control and Countermeasure Plan. Additionally, the CSB is designed with secondary containment to ensure that any mercury accidentally released would be contained within the building.

**Comment 12-18**

Chapter 2, Section 2.9.3, Table 2-6, Page 2-37: Distance to nearest business or residence indicated 950 feet. Utilizing Google Maps, the distance from the existing planned storage building to the nearest public structure measured only 496 feet.

**Response:**

The distance of 950 feet was measured from the CSBU building to businesses and residences located across Gallaher Road. It was remeasured to the office of the self-storage business next to Perma-Fix DSSI and determined to be approximately 690 feet. The Final SEIS-II reflects this corrected value. The distance was not measured to the closer self-storage unit buildings as they are not occupied on a regular basis.

**Comment 12-19**

Chapter 2, Section 2.9.3, Page 2-40: It is stated that “No impacts to groundwater or surface water would be expected”.

- a. Until questions in Item #8 above are answered, there can't be any assurances that the unexpected has a high potential to occur.
- b. Additional monitoring for the Perma-Fix DSSI location will be required due to its close proximity location to the public, high traffic public highways, and potential impacts to public use resources (air, groundwater, and surface water).

**Response:**

- a. Risk to groundwater and surface water is estimated to be negligible to low. As noted in the response to Comment 12-8, the severity levels shown in the table do not represent the risk. Risk is a combination of both severity and the likelihood (frequency) of an accident occurring. The estimated frequency of a beyond-design-basis earthquake is extremely low.
- b. As an operating hazardous waste facility, Perma-Fix DSSI is subject to all monitoring required by state or Federal permits. Any additional monitoring requirements would be determined by TDEC as part of the permit (or permit modification) process.

**Comment 12-20**

Chapter 2, Section 2.9.4, Page 2-40: Additional monitoring for the Perma-Fix DSSI location will be required due to its close proximity location to the public, high traffic public highways, and potential impacts to public use resources (air, groundwater, and surface water).

**Response:**

As an operating hazardous waste facility, Perma-Fix DSSI is subject to all monitoring required by state or Federal permits. Any additional monitoring requirements would be determined by TDEC as part of the permit (or permit modification) process.

**Comment 12-21**

Chapter 2, Section 2.9.9, Page 2-43: Facility accidents identified include mercury spills. Seismic probability at several of the sites is identified. However, all the sites discussed have less seismic potential than the Perma-Fix DSSI site (second highest of all the sites). Thus, the public is at a higher risk of exposure due to seismic at the Perma-Fix DSSI site than the other sites noted since they are only 496 feet away.

**Response:**

This SEIS-II was been updated to reflect the distance to the closest business or residence as approximately 690 feet (see response to Comment 12-18). This change was also made in Section 4.6.9.2 and Appendix B, Table B-11.

Human health risk is a function of both the consequence and probability of an event, in this case, a beyond-design-basis earthquake causing a total building collapse.

As noted in this SEIS-II, Bethlehem Apparatus and Clean Harbors Greenbrier are the only locations where offsite human receptors could be within 100 meters during an extremely unlikely earthquake scenario with building collapse. The analysis of the event (irrespective of its probability), identifies that the concentration of mercury vapor at that distance could fall into the SL-IV range, assuming no evacuation or into the SL-II range, assuming evacuation. Because the closest offsite human receptors to a potential event at Perma-Fix DSSI would be 690 feet from the building (50 percent further away than the 100-meter SL-IV threshold location), potential consequences would be lower, in the SL-II range, even without evacuation.

While the PGA value (corresponding to an annual probability of occurrence of about 1 in 2,500 years) of 0.33 g at the Perma-Fix DSSI site is higher than the PGA values cited for Bethlehem Apparatus and Clean Harbors Greenbrier sites, an earthquake of the size necessary to cause a building collapse is still extremely unlikely. Additionally, the building codes for the region take into account the potential higher seismicity. When combined with the reduced potential impact of such an event, the overall risk to members of the public would be lower.

**Comment 12-22**

Chapter 2, Section 2.10.1.9, Page 2-51: All accident spills were based on a low number of containers being breached. It is also stated that the accident conditions would not be affected by a smaller total quantity of mercury. In addition, it states that the analysis uses the specific building floor area and not the amount of mercury stored in the building. If the amount of mercury released (volume) exceeds the containment capabilities of the floor area, whether due to containment capacity exceedance or loss of floor integrity due to damage (i.e., seismic movement damage),

then the volume of material released would be of concern and have a definite impact on the environmental impact quantification.

**Response:**

As identified in the 2011 Mercury Storage EIS (Appendix D, Section D.2.4), there was no release of mercury from any of the warehouses currently used for elemental mercury storage by the Defense Logistics Agency (at Hawthorne Army Depot) or by NNSA (at Y-12), and there is no known member of the public that has been affected by any spills at any existing storage location. This section also identifies the potential probabilities and consequences associated with a single-flask, single-pallet, triple-pallet, or 1-MT container spill.

Section 2.10.1.9 in this SEIS-II is a sensitivity analysis to assess if the potential impacts might be different if the duration of storage were shorter or a smaller amount of mercury were stored in the facility. The details of the analysis of the potential mercury concentrations resulting from earthquakes (including a beyond-design-basis earthquake with building collapse) are presented in Appendix D of the 2011 Mercury Storage EIS. For a design-basis earthquake (assumed to occur once every 10,000 years), the analysis assumed that the building remains intact; however, all of the containers within the building would be breached. This is an extremely conservative assumption because the storage racks, if used to double stack the containers, would be seismically qualified; otherwise, the 1-MT containers would be placed directly on the floor. For the beyond-design-basis earthquake, the analysis did not reflect a much lower probability from the design-basis event; also an extremely conservative assumption. The analysis assumes that during the building collapse, all mercury is spilled and evaporates in open air (2011 Mercury EIS, Section D.7.1.2, Equations 7-2 and 7-3) using turbulent flow characteristics (as opposed to laminar flow used for inside spills) at a variety of external wind speeds to determine the maximum downwind distances where severity levels would be reached (e.g., SL-IV could be exceeded at distances less than 100 meters).<sup>2</sup> This is also an extremely conservative assumption because during extreme earthquakes, most buildings would collapse on top of the floor area, preventing open-air evaporation. As stated in the comment, the analysis used the building floor area as the area of potential open-air evaporation. While the mercury may not be contained by the floor area in a beyond-design-basis earthquake and potentially spread across a larger area, the analysis in the 2011 Mercury EIS and 2013 Mercury SEIS-I for the new construction scenario (Appendix D, Tables D-25 and D-27, and Appendix E, Table E-2) bounds a non-containment scenario for the sites evaluated in this SEIS-II. In the 2011 Mercury EIS, the mercury storage area of a newly constructed building was assumed to have a floor area of 146,500 square feet. This is nearly 23 times larger than the floor area of the CSBU building at the Perma-Fix DSSI facility and 10 times larger if the CSBU Expansion building were also fully used. The predicted distance to a SL-IV concentration of mercury vapor from the larger building was still less than 100 meters and approximately 200 meters for SL-III concentrations. Appendix B (Section B.6.2.2) of this SEIS-II describes the relationship of the potential distances for each SL for the current site alternatives to the distances predicted in 2011 and updated in 2013 (Table E-2). Whether the spill is contained or not, the analysis in this SEIS-II predicts that SL-IV concentrations would be present only inside

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<sup>2</sup> In Appendix D of the 2011 Mercury Storage EIS, DOE explains that the atmospheric dispersion model is not valid (e.g., as accurate) at distances from the source less than 100 meters, therefore, when model results indicate distances less than 100 meters, they are presented as “less than 100 meters” regardless of if they are 20 meters or 99 meters.

100 meters from the facility, even if mercury spread over a much larger area as analyzed in the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS.

**Comment 12-23**

Chapter 4, Section 4.6.7.1, Page 4-59: If the mercury currently stored at Y-12 is reclassified as waste, would the majority of this material be targeted for storage at the Perma-Fix DSSI site?

**Response:**

As analyzed in this SEIS-II, if NNSA determines that the mercury currently stored at the Y-12 facility no longer has a programmatic value and is designated a waste, it would be shipped, managed, and stored at the (or one of the) designated facility(ies). If DOE selects an action alternative (as opposed to the No-Action Alternative), the ROD would designate one or more of the facilities evaluated in this SEIS-II for long-term management and storage of elemental mercury.

**Comment 12-24**

Chapter 4, Section 4.6.9.2, Page 4-61: The distance to the nearest public structure is actually only 496 feet from the current storage building planned for mercury storage. Thus, public exposure risk is higher than that presented due to mercury vapor exposure potential.

**Response:**

See response to Comment 12-18.

***Nevada Gold Mines***

**Comment 13-1**

As of the date of these comments, NGM has accumulated 229 metric tons of elemental mercury in off-site storage, and 245 metric tons in on-site storage. Of the mercury stored on-site, 112 metric tons had been accumulated prior to January 1, 2020, and therefore that mercury belongs to DOE. NGM is working with DOE to arrange for transfer of title and possession to the pre-2020 on-site mercury. Since January 1, 2020, NGM has generated—and stored on-site—an additional 133 metric tons of elemental mercury, all of which will remain in temporary storage and will be delivered to DOE’s long-term mercury storage facility when it opens. NGM also has shipped or is preparing to ship 17 metric tons to Bethlehem Apparatus for conversion into mercury sulfide and then to U.S. Ecology’s Stablex facility in Canada for permanent land disposal (explained in more detail below).

**Response:**

DOE acknowledges the status of NGM’s mercury accumulation and plans for treatment of the 17 MT at Bethlehem Apparatus for eventual disposal in Canada. As appropriate, this Final SEIS-II reflects this data point. However, the plan to ship 17 MT to Canada for permanent land disposal does not constitute a trend among all generators. DOE anticipates, in the future NEPA evaluation

for the Fee Rule, evaluating a range of potential inventories that address the generators' option for treatment and disposal in Canada as opposed to using the DOE-designated storage option. See the response to Comment 13-14 regarding extra-territorial impacts in Canada.

### **Comment 13-2**

NGM's primary interests in reviewing the DSEIS are to see the DOE facility opened as soon as possible and for DOE to establish a reasonable price for long-term mercury storage that meets the requirements of MEBA. As became apparent when DOE first attempted to determine a mercury fee, the location (or locations) of the long-term mercury storage facility and the DOE fee established for mercury storage are inseparably linked. In 2019, DOE proposed its mercury fee rule months before it issued a Record of Decision (ROD) selecting the Waste Control Specialists (WCS) facility in Andrews, Texas. Elemental Mercury Storage Fees, 84 Fed. Reg. 53066 (October 4, 2019). Mercury generators were forced to comment on the components and reasonableness of DOE's storage fee in the abstract, without any information about where the mercury would be stored or the costs associated with that location. The process was unworkable. The current DSEIS is part of DOE's revamped process, in which DOE will first select and disclose the storage facility location (or locations), and then will propose a mercury storage fee in the context of the facility (or facilities) selected. This decision-making order is an improvement but does not go far enough. These two closely related federal actions should be evaluated together, in the same environmental impact statement (EIS).

### **Response:**

DOE acknowledges NGM's opinion on the two Federal actions. DOE's process includes the following actions: (1) complete the Final SEIS-II, (2) if DOE selects an action alternative (as opposed to the No-Action Alternative), prepare a ROD that designates one or more facilities evaluated in this SEIS-II for long-term management and storage of elemental mercury, (3) propose the fee based on the facility or facilities designated and other costs recoverable under MEBA, and (4) perform appropriate NEPA evaluation for the Fee Rule. While these actions are related, it makes sense to sequence the process so that the designated facility(ies) can be considered during the fee rulemaking. As an example, if a ROD designates a facility under MEBA, that action would have been fully evaluated in this SEIS-II. After the facility designation, DOE would develop the proposed fee for the designated facility. DOE would normally publish the Notice of Proposed Rulemaking and its Draft EIS for the rulemaking around the same time. That NEPA evaluation cannot be prepared prior to the preparation of the proposed Fee Rule. Additionally, as stated in Section 2.6 of this SEIS-II, once the regulatory steps to allow treatment and disposal of elemental mercury in the United States are complete, which could take several years, DOE could then consider transporting the mercury stored at the designated facility(ies) for treatment and ultimate disposal. DOE has provided a qualitative assessment of potential impacts associated with post-storage management of the elemental mercury (which would include transportation, treatment, and disposal) as part of a sensitivity analysis (see Section 2.10.3). Nevertheless, prior to taking any specific, post-storage management actions, DOE will determine whether future NEPA analysis is necessary, and prepare any such analysis, in accordance with NEPA.

**Comment 13-3**

We understand that if DOE proceeds as suggested, it will conduct a confidential procurement process in which the costs of commercial storage will be considered as part of decision-making. NGM's concern, as explained in more detail below, is that DOE has inappropriately narrowed its likely alternatives to commercial facilities only. There will be no comparison, inside or outside of the NEPA process, of the costs and associated environmental impacts of commercial storage with the costs and associated environmental impacts of storage at any facility currently owned by DOE.

Costs are relevant to this NEPA analysis because DOE's choice will have direct and foreseeable environmental impacts, different from those analyzed in the DSEIS. Indeed, because of the ongoing delay in opening the DOE facility, NGM has already made the decision to ship some newly generated mercury to Bethlehem for treatment and then to Stablex in Canada for disposal (referred to hereafter as Bethlehem/Stablex), rather than keeping it in temporary storage for eventual delivery to DOE's facility. If DOE designates a commercial facility (or facilities) as a "facility (or facilities) of the Department of Energy"—a decision it made once and appears inclined to make again—and the mercury storage fees based on that choice are excessive, NGM and other generators may decide to treat and dispose, instead of delivering to DOE's storage facility. Just one direct and foreseeable impact of the cost of storage is that DOE's long-term storage facility may receive significantly less elemental mercury for long-term storage than the 6,800 metric tons projected, and much more of the mercury generated may end up in the Stablex landfill in Canada, or in a U.S. Ecology landfill in the U.S. The DSEIS does not analyze these possibilities, and the resulting environmental and other impacts, other than as a component of the No-Action alternative. And even in that scenario, DOE assumes that generators are unlikely to ship to Bethlehem/Stablex. See DSEIS at 4-8–9. The soundness of that assumption is undermined by the fact that NGM has already begun shipping elemental mercury to Bethlehem/Stablex.

**Response:**

DOE has not inappropriately narrowed the range of reasonable alternatives. Through the numerous DOE NEPA documents prepared to evaluate the Proposed Action, DOE has assessed the potential impacts of long-term storage and management at both federal and commercial sites.

As presented in the 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS, the potential environmental impacts of storing and managing up to 10,000 MT of elemental mercury at any of the 11 government facility alternatives are not noticeably different than the impacts of storing and managing up to 7,000 MT at any of the seven existing commercial facilities evaluated in this SEIS-II.

With regard to the comments about relative costs, these costs have no bearing on the potential environmental impacts of the HWAD alternative, however, DOE has prepared a relative cost comparison workbook based on a 2007 EPA report and reaffirmed EPA's conclusion that the HWAD storage scenario's costs are comparable to (not significantly higher or lower than) private-sector storage costs. This comparison workbook has been included in the Administrative Record for this NEPA process and would also be included in the record to support any designation decision.

The cost comparison workbook also demonstrates that, in the short-term (e.g., about 10 years), the costs of management and storage of elemental mercury at an existing, permitted, commercial facility would be less expensive than any of the previously evaluated alternatives requiring capital improvements (DOE-New, DOE-Existing/Retrofit, and HWAD/Retrofit). Based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years.

While DOE agrees that costs are relevant to the ultimate decision on the fee determination and on the designation of the storage facility(ies) for long-term management and storage of elemental mercury, the attendant costs of that management and storage are not required to be included in this SEIS-II. DOE's RODs typically acknowledge that potential environmental impacts are just one factor that is considered when developing a decision. Other factors (e.g., cost, schedule, permitting, policy, technical considerations) also may have a bearing on the decision. DOE will comply with DOE's NEPA implementing procedures (at 10 CFR § 1021.213) and the *Administrative Procedure Act* when drafting and evaluating the proposed fee rulemaking. If DOE selects an action alternative (as opposed to the No-Action Alternative), the ROD would designate one or more of the facilities evaluated in this SEIS-II for long-term management and storage of elemental mercury. The designation decision would be based on a combination of factors such as cost, schedule, permitting, risk, policy, procurement requirements, and environmental and technical considerations.

This SEIS-II includes an evaluation of potential environmental impacts if the 7,000 MT of mercury is transported, managed, and stored at one of the eight alternative sites. Section 2.10.1 of this SEIS-II provides a sensitivity analysis that evaluates the potential differences in impacts if the duration of storage were shorter and if the facility only stored about 2,500 MT of mercury. This SEIS-II also includes an analysis of the No-Action Alternative, which acknowledges that ore processors essentially have three options for handling mercury if DOE does not designate a storage facility: (1) continue to accumulate on site, (2) ship to a permitted storage facility, or (3) ship for treatment and ultimate disposal in Canada. As reported earlier, DOE acknowledges the status of NGM's mercury accumulation and plans for treatment of the 17 MT at Bethlehem Apparatus for eventual disposal in Canada. The plan to ship 17 MT to Canada for permanent land disposal does not constitute a trend among all generators. DOE anticipates, in the future NEPA evaluation for the Fee Rule, evaluating a range of potential inventories that address the generators' option for treatment and disposal in Canada as opposed to using the DOE-designated storage option.

It should also be noted that as the potential inventory to be stored decreases, the use of a commercial facility becomes even more cost efficient, as opposed to building or modifying an existing DOE or other government-owned facility. Commercial storage provides more flexibility with respect to inventory variability. Storage costs at a commercial facility would be levied on a per metric ton basis and would not include the commitment of upfront resources that would be required for real estate, permitting, and modifications at HWAD or construction of a new facility at any other location.

Contrary to the commenter's statement, there is no current disposition path for nonradioactive mercury to end up in a disposal facility in the United States. Once a treatment and disposal path is available in the United States, the need for a DOE-designated storage facility will be reduced. Also, if treatment and disposal is approved in the United States, DOE will perform additional

NEPA analyses to evaluate the transportation, treatment, and disposal of the mercury stored in the designated facility (see Section 2.6 of this SEIS-II).

#### **Comment 13-4**

One of the most significant defects of the DSEIS is its omission of any DOE-owned facility as an alternative. DOE removed two facilities, Kansas City Bannister (Bannister) and Idaho National Laboratory (INL), because of changes in mission, but the other previously considered DOE facilities were eliminated because they would require at least some new construction. With the exception of the Hawthorne Army Depot (HWAD), the remaining alternatives are all private commercial facilities. And DOE makes clear in the DSEIS that HWAD is not preferred because of the likely leasing and permitting delays DOE would encounter there. DSEIS at 2-34 (“DOE does prefer one or more of the existing commercial facilities evaluated in this Draft SEIS-II because selection of one or more of these commercial facilities would facilitate schedule urgency established by MEBA.”).

The omission of DOE-owned sites means that the DSEIS lacks, among other things, any comparison of cost or other advantages (or disadvantages) of one type of storage over another. Including DOE-owned facilities would have enabled DOE to consider whether cost differences between DOE-owned and commercial facilities really should be a factor in its decision-making. Comparing commercial facilities with DOE storage would allow DOE to balance the statutory directives of MEBA with the agency’s expressed need to establish a long-term mercury storage facility as quickly as possible. That kind of insight into decision-making is the reason NEPA requires alternatives analysis. 42 U.S.C. § 4332(C)(iii); see *High Country Conser. Advocates v. U.S. Forest Serv.*, 951 F.3d 1217 (10th Cir. 2020) (employing “rule of reason” to find agency EIS inadequate because of a “one-sided approach” in omitting detailed consideration of an alternative because it did not align to one objective despite aligning to another objective).

#### **Response:**

The commentor’s statement of the DSEIS-II being defective because of an omission of any DOE-owned facility is incorrect. Section 2.2 provides the bases for why the existing facilities that were previously analyzed in the 2011 Mercury Storage EIS (Bannister Federal Complex and Idaho National Laboratory) were no longer considered reasonable alternatives. See response to Comment 13-3 on the previous evaluations of Federal facilities.

The comment also conflates cost analysis and the effect on DOE's decision-making with NEPA analysis. DOE is not required to, and generally does not, undertake extensive cost analyses in a NEPA document. The comment related to cost comparisons in this SEIS-II is outside the scope of the analysis. The potential ramifications of the cost of the Fee Rule will be evaluated as part of the Fee Rule NEPA evaluation and would be specific to the designated facility.

See the response to Comment 13-3 related to the relative cost comparison between alternatives.

As noted in Section 2.2.5 of the Draft SEIS-II:

*“On May 3, 2021, the Acting Assistant Secretary for DOE’s Office of Environmental Management sent a letter to the other DOE offices and programs*

*for assistance in the identification of any existing DOE facilities that could meet the [necessary] criteria and be considered as reasonable alternatives in this Mercury Storage SEIS-II.”*

After communications with these offices and programs, DOE did not identify any existing facilities that could reasonably be used for its Proposed Action without significant modification and RCRA permitting.

As documented in the Draft SEIS-II, DOE performed the requisite “hard look” for potential reasonable alternatives using DOE-owned, existing facilities.

With respect to the alternative of constructing a new facility, DOE considered both the FAR and the relevant MEBA language related to new construction as well as the statutory mandates on timing. The FAR is the primary regulation used by all Federal executive agencies in their acquisition of supplies and services. The FAR was established to codify uniform policies for acquisition of supplies and services by Federal executive agencies. The Federal Government, including DOE, has a general policy to use commercial services and capabilities when determined to be sufficient to meet the mission needs. The FAR, as described in Part 10, Part 11, and Part 12 policy statements, expresses the preference for using commercial services, if available to meet mission needs.<sup>3</sup> These sections of the FAR are derived from Title 41 USC 3307, the US code specifying the US government’s “Preference for commercial products and commercial services.”

Additionally, MEBA discourages DOE from constructing a new facility for long-term management and storage of elemental mercury. MEBA language related to what costs can be included in the fee charged to the user of the long-term management and storage facility is as follows: “*Building design and building construction costs shall only be included to the extent that the Secretary finds that the management and storage of elemental mercury accepted under the program under this section cannot be accomplished without construction of a new building or buildings.*”

Given the statutory mandates of when to have a long-term management and storage facility operational and the uncertainty of how long the facility may need to operate, DOE also appropriately considered the timing and flexibilities associated with utilizing an existing facility versus a newly constructed one.

### **Comment 13-5**

NGM acknowledges that DOE’s decision-making process in this case is complex. We understand also that costs are not typically a focus of NEPA documents. However, this is a unique Federal action, and costs are uniquely relevant in this decision-making process. MEBA requires DOE to establish a long-term mercury storage facility and allows but does not require generators to use it. NGM and other generators have accumulated elemental mercury in temporary storage while waiting for DOE to establish the long-term mercury storage facility, which mercury MEBA requires to be delivered to DOE’s facility when it opens. 42 U.S.C. §§ 6939f(g)(2)(B), 6939f(g)(2)(D). However, generators retain the option to send newly generated elemental mercury

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<sup>3</sup> Title 41 U.S.C. § 3307 is the United States code that specifies the U.S. Government’s “preference for commercial products and commercial services.” FAR Parts 10, 11, and 12 are the regulations derived from 41 U.S.C. § 3307.

(mercury not placed in temporary storage) for treatment and disposal instead of delivering it to DOE. The cost of DOE storage is therefore directly relevant to how and where elemental mercury generated in the U.S. is managed now and in the future. We believe the DSEIS in its current form is defective because it does not address the various facets of the project holistically, and it assumes that costs are not relevant to environmental impacts. See *Matthews v. U.S. Dep't of Transp.*, 527 F. Supp. 1055, 1057 (W.D.N.C. 1981) (explaining NEPA “does not permit the agency to eliminate from discussion or consideration a whole range of alternatives, merely because they would achieve only some of the purposes of a multi-purpose project,” then enjoining further development of highway until further analysis of possible bypass was completed).

Timing may be an appropriate factor in the analysis of alternatives, but DOE should not have made it the deciding factor in whether an alternative should be included. Inclusion of DOE-owned facilities would have strengthened the analysis of alternatives. Also, as discussed further below, DOE arguably is required to site the mercury storage facility at one of its own facilities. As presented, the DSEIS evaluates seven commercial facilities whose likely impacts would be geographically different, but otherwise very similar. Without more diverse alternatives, the DSEIS does not do its job of informing decision-makers and the public. The exclusion from the DSEIS of any real alternatives to commercial storage is inconsistent with the twin purposes of NEPA: to identify the environmental impacts of federal actions and to inform the public about DOE's decision-making. *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 553 (1978).

**Response:**

DOE prepared the Draft SEIS-II consistent with CEQ and DOE NEPA regulations and incorporated by reference much of the analyses from DOE's Mercury Storage EIS (2011) and the Mercury Storage SEIS (2013). DOE presents both a holistic and methodical approach to the complex proposal for long-term management and storage of elemental mercury. Specifically, Section 2.1 of this SEIS-II describes the analytical framework for the SEIS including the potential duration of storage and inventory and also acknowledges the uncertainties related to the timing of the availability of an EPA-approved treatment and disposal method. Section 2.2 of this SEIS-II identifies the process used to identify the range of reasonable alternatives. Section 2.5 details the range of potential options that ore processors could take under the No-Action Alternative.

See responses to Comments 13-3 and 13-4 as they relate to the availability of an existing DOE-owned facility and the relative cost comparison between alternatives.

Relative to construction of a DOE-owned facility (on or off of DOE property), Section 2.2 includes reasons why DOE does not consider construction of a new facility to be a reasonable alternative, especially considering the following uncertainties.

First, Section 2.1.1 identifies the duration used for analytical purposes in the SEIS, which was 40 years. That section also identifies the uncertainty associated with the need for a long-term management and storage facility because of the potential for EPA approval of a treatment and disposal approach for elemental mercury. According to EPA, a petition for a site-specific variance is being reviewed and, if approved, could allow treatment and disposal within a few years. If the variance is not approved, long-term management and storage could be required indefinitely

(anything longer than 40 years would require additional NEPA review). This uncertainty affects not only the potential duration of the facility but also the potential size of the facility. Based on currently available information, DOE believes there is a realistic possibility that an approved treatment and disposal method will be available within 10 years.

Secondly, Section 2.1.2 of the Draft SEIS-II discusses the estimated inventory of mercury that could require long-term management and storage, which would be approximately 7,000 metric tons assuming the 40-year analytical duration. If, however, a treatment and disposal approach were approved in the next few years, the total mercury inventory that could require *interim* management and storage could be as little as 1,300 metric tons (not including approximately 1,200 metric tons of NNSA mercury stored at Y-12, which has not yet been determined to be waste). This uncertainty in inventory means that the size of the designated facility or number of designated facilities could be significantly less than that required to store 7,000 metric tons.

Further, as noted in the response to Comment 13-4, the FAR and MEBA, itself, encourage acquisition of services via commercial entities, if available, and prohibit recovering the costs of construction if an existing alternative is available. If DOE chose to construct a new facility, those costs to construct the building(s) would have to eventually be passed onto the U.S. taxpayer.

#### **Comment 13-6**

DOE should supplement the DSEIS with analysis that (1) includes DOE-owned facilities (even if they would require some construction or permitting); (2) compares their likely costs with the costs of commercial storage as well as currently available and foreseeable alternatives to DOE long-term storage; (3) addresses the mercury storage fee, including the portion of the fee attributable to eventual treatment and disposal; and (4) evaluates the environmental impacts of the proposed action with these new dimensions taken into account.

#### **Response:**

See responses to Comments 13-2, 13-3, 13-4, and 13-5. There is no need to supplement the Draft SEIS-II.

#### **Comment 13-7**

A. DOE's Segmentation of the NEPA Process is Inconsistent with NEPA and CEQ/DOE Regulations.

Based on DOE's explanation of its decision-making process, its NEPA analysis may be conducted in as many as four segments: (1) the current DSEIS; (2) the mercury storage fee rule; (3) the environmental synopsis required for the procurement process (see 10 C.F.R. § 1021.216(h));<sup>3</sup> and (4) treatment and disposal of mercury.<sup>4</sup>

DOE's regulations direct that NEPA should be considered "early in the planning stages for DOE proposals." 10 C.F.R. § 1021.101. CEQ regulations provide:

Agencies shall define the proposal that is the subject of an environmental impact statement based on the statutory authorities for the proposed action. Agencies shall

use the criteria for scope (§ 1501.9(e) of this chapter) to determine which proposal(s) shall be the subject of a particular statement. Agencies shall evaluate in a single environmental impact statement proposals or parts of proposals that are related to each other closely enough to be, in effect, a single course of action.

40 C.F.R. § 1502.4(a) (emphasis added). It is difficult to imagine two issues being more closely related than long-term mercury storage and the fee charged for that storage (and costs associated with it). The scoping provisions referred to above (and quoted below) bolster the conclusion that DOE has improperly segmented its NEPA compliance for establishing the long-term mercury storage facility:

To determine the scope of environmental impact statements, agencies shall consider:

(1) Actions (other than unconnected single actions) that may be connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

(i) Automatically trigger other actions that may require environmental impact statements;

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously; or

(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

40 C.F.R. § 1501.9(e). The rule's language clearly applies to DOE's establishment of a long-term mercury storage facility. DOE's need to promulgate a mercury storage fee flows directly from its statutory obligation to establish a long-term mercury storage facility. The requirement to select a DOE facility and the authority/requirement to charge a storage fee are established in the same section of the same statute: Section 5 of MEBA, codified at 42 U.S.C. § 6939f(a). If there is no mercury storage facility, DOE would not need a mercury storage fee. Each action is dependent on the other. *Blue Ocean Preservation Soc.*, 754 F. Supp. at 1450 (explaining agency had impermissibly segmented a four-phase project across multiple EISs because later phases depended on earlier ones, specifically deep-water cable research and construction could not occur without subsequent development of a geothermal power source).

<sup>3</sup> Pursuant to DOE's NEPA rules for procurement actions, DOE may require offerors to submit environmental data, which DOE must independently evaluate. 10 C.F.R. § 1021.216(b). The rules provide further that EPA must prepare a (confidential) environmental critique for offers "in the competitive range," which can be based on the environmental data submitted, on DOE's own environmental analysis, or both, but must be sufficient to support a reasoned decision. 10 C.F.R. § 1021.216(f). Then, DOE must prepare a publicly available environmental synopsis, file it with EPA, and incorporate it into the EIS for the action. 10 C.F.R. § 1021.216(h). The EIS must be prepared before any action is taken under the contract, if one has been awarded. If the award has occurred before completion of the EIS, it must be made contingent on completion of the NEPA process.

<sup>4</sup> It is not clear from the DSEIS, but NGM understands that depending upon timing, DOE may incorporate the environmental synopsis into the final version of this EIS.

**Response:**

The commenter incorrectly portrays and projects the multifaceted nature of and the related, but independent, requirements under MEBA and the associated NEPA as “segmentation.” The Department’s NEPA strategy and implementation is entirely consistent and compliant with CEQ and DOE regulations and procedures. The commenter identifies four activities that relate to DOE actions that warrant discussion relative to timely NEPA evaluation.

1. This SEIS-II – The current SEIS-II evaluates a range of reasonable alternatives for DOE’s Proposed Action of designating a long-term management and storage facility for the transportation and long-term management and storage of approximately 7,000 MT of elemental mercury in accordance with MEBA. The current SEIS-II includes an evaluation of the No-Action Alternative, which identifies several options that could be taken by ore processors (and others) if DOE does not take action to comply with MEBA. This SEIS-II also identifies the uncertainty and timing of when an evaluation of the potential impacts associated with treatment and disposal would occur. Completion of this SEIS-II would be sufficient for DOE to prepare a ROD and potentially to make a facility designation for long-term management and storage.
2. The Mercury Storage Fee Rule – The Department’s NEPA implementing procedures at 10 CFR § 1021.213 identify the NEPA requirements for DOE’s issuance of a proposed rulemaking. DOE will comply with these requirements by preparing a NEPA evaluation for the Fee Rule that is specific to the DOE-designated facility and will include an analysis of the range of mercury inventory that would have the option to be treated and ultimately disposed of in Canada. The NEPA evaluation of the Fee Rule will be prepared contemporaneously with the proposed Fee Rule, which would occur after one or more facilities are designated under MEBA. Any designation decision would consider the cost of the alternatives as one of its criteria in the completion of the procurement process.
3. Environmental Synopsis under Section 216 – The DOE NEPA implementing procedures at 10 CFR § 1021.216 provide a method for complying with NEPA for procurement actions. As identified in Section 1.3 of this SEIS-II, on October 14, 2020, DOE issued a Sources Sought Synopsis/Request for Information to identify companies capable of potentially providing (1) leased space for the long-term management and storage of elemental mercury generated in the United States and (2) the associated services necessary for the long-term management and storage of elemental mercury. Section 2.2.2 of this SEIS-II identifies how information received in response to this Sources Sought/Request for Information has informed the alternatives evaluated in this SEIS-II. The final Request for Proposals was issued on March 24, 2022, and proposals were required to be submitted by May 6, 2023. Assuming DOE selects an action alternative (as opposed to the No-Action Alternative), any award made under this procurement is expected to be made contemporaneously with issuance of the ROD.

Because DOE anticipated that this SEIS-II would include the range of companies that would be likely to propose on the procurement for leased space and associated services for long-term management and storage of mercury, DOE would have completed the requisite NEPA evaluations for each of the qualified respondents without having to employ the approach identified in 10 CFR § 1021.216. If additional responses had been received that were credible

and had not been evaluated in this SEIS-II, DOE would have needed to ensure that those respondents were properly evaluated under NEPA. DOE has verified that all respondents were included within the range of reasonable alternatives in this SEIS-II.

4. Treatment and Disposal of Mercury – As far as the NEPA evaluation of treatment and disposal actions, Section 2.1.1 of this Mercury Storage SEIS-II identifies the current situation that, as of the publication of this Mercury Storage SEIS-II, there still is no EPA-approved treatment method for nonradioactive mercury for eventual disposal in the United States. This SEIS-II also acknowledges that US Ecology (since acquired by Republic Services) has petitioned the EPA for a site-specific Determination of Equivalent Treatment for its permitted disposal facility. Section 2.6 of this SEIS-II identifies the regulatory process that would eventually address the approval of the treatment and disposal of elemental mercury in the U.S. Once these steps were complete, which could take several years, and if EPA approves the treatment and disposal petition, DOE could then consider transporting the mercury stored at the designated facility(ies) (i.e., the subject of this Mercury Storage SEIS-II) for treatment and disposal. Prior to taking these actions, DOE would perform an appropriate NEPA review. Consistent with the statements in the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS, Section 2.1.1. of this SEIS-II states:

*“This Mercury Storage SEIS-II continues to consider the analysis and presentation of potential environmental impacts associated with treatment and disposal of mercury as speculative and assumes a 40-year mercury storage timeframe to be consistent with previous analyses.”*

It would be speculative to prejudge EPA’s decision on the US Ecology petition and to attempt to estimate potential impacts of a treatment approach and land disposal prior to EPA’s evaluation and decision of the petition. Additionally, any decision made by DOE regarding the designation of a mercury storage facility would be in compliance with MEBA and would be independent of future decisions relative to treatment and disposal. The Final SEIS-II includes a new Section 2.10.3 to address comments related to the potential impacts of post-storage “management” of elemental mercury. This section provides a qualitative assessment of the potential impacts of these post-storage actions.

### **Comment 13-8**

#### **B. The DSEIS Must Take Costs of Storage into Account.**

In its 2020 rewrite of NEPA implementing rules, CEQ added provisions that emphasize the role of economic analyses in NEPA compliance. Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43304 (July 16, 2020). 40 C.F.R. § 1501.2(b) as amended directs that agencies:

Identify environmental effects and values in adequate detail so the decision maker can appropriately consider such effects and values alongside economic and technical analyses. Whenever practicable, agencies shall review and publish environmental documents and appropriate analyses at the same time as other planning documents.

CEQ explained: “This change is consistent with section 102(2)(B) of NEPA, which directs agencies, in consultation with CEQ, to identify and develop methods and procedures to ensure environmental amenities and values are considered along with economic and technical considerations in decision making.” 85 Fed. Reg. at 43321. The rule requires not only that environmental and economic analyses be coordinated; it requires that they be reviewed and published at the same time, unless that is not practicable. DOE’s decision-making process does not meet this requirement. In the DSEIS, DOE evaluates environmental impacts without considering any economic factors that might advantage (or disadvantage) some alternatives over others. DOE likely will respond that costs will be considered later, during the procurement process, and/or perhaps in connection with the mercury storage fee rule that will be promulgated later. DOE’s neglect of costs in the DSEIS is inconsistent with the coordination requirements of 40 C.F.R. § 1501.2(b). DOE should coordinate its economic and environmental analyses of the proposed long-term mercury storage facility or explain why it is not practicable to do so. *City of Sausalito v. O’Neill*, 386 F.3d 1186, 1214 (9th Cir. 2004) (“While the [CEQ rules] do not provide a specific definition of ‘cost-benefit analysis,’ they make clear that such an analysis may be informal. . . . A ‘cost-benefit’ analysis under the [CEQ rules] consists of any analysis identifying and assessing the comparative benefits and/or costs of ‘environmentally different alternatives.’ To be subject to the [CEQ rules’s] disclosure requirements, the analysis must be “relevant to the choice” between these alternatives. The [CEQ rules] conclude: ‘In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which are likely to be relevant and important to a decision.’”) (citations omitted).

These deficiencies in DOE’s planning process are compounded by its exclusion of DOE-owned facilities from consideration in the DSEIS. DOE’s focus on only commercial storage means that a thorough and public-facing comparison of DOE and commercial storage costs will never happen. That is the case even if costs are considered later in the decision-making process, because the only facilities being considered are commercial. This is a fundamental flaw that can be remedied only by supplementing the DSEIS with DOE-owned alternatives, and by either (1) adding comparative information about costs to the revised DSEIS or (2) conducting a parallel economic analysis that can be reviewed and published simultaneously with the revised DSEIS.

The foregoing establishes that NEPA’s statutory language—bolstered by revisions to the implementing rules—requires DOE to coordinate environmental and economic analyses. Other revisions to the CEQ rules go further, confirming that in this case, the economic analysis of long-term mercury management must be addressed as part of NEPA compliance, not just in parallel with it. In its 2020 rewrite of the NEPA rules, CEQ brought economic concerns forward, both to emphasize the statute’s inclusion of economic values where appropriate and to clarify when economic factors must be a part of NEPA analysis. CEQ rules specify what should be included in discussions of environmental consequences, including, “[w]here applicable, economic and technical considerations.” 40 C.F.R. § 1502.16(a)(10). CEQ explained in the proposed rule preamble that this and other changes were made to “focus on those effects that are reasonably foreseeable and have a close causal relationship to the proposed action.” Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684, 1702 (January 10, 2020). CEQ continued: “To align with the statute, CEQ also proposes to add a new § 1502.16(a)(10) to provide that discussion of environmental consequences should

include, where applicable, economic and technical considerations consistent with section 102(2)(B) of NEPA. *Id.*

Subsection (b) of that rule elaborates:

Economic or social effects by themselves do not require preparation of an [EIS]. However, when the agency determines that economic or social and natural or physical environmental effects are interrelated, the [EIS] shall discuss and give appropriate consideration to these effects on the human environment.

As NGM's comments make clear, economic considerations are—or should be—prominent in this decision-making process, because costs will determine whether generators deliver mercury to DOE or manage it elsewhere. DOE should be comparing costs among commercial storage options, and also comparing costs of DOE storage, HWAD storage, and commercial storage. DOE's analysis should take into account the current cost of mercury purification, the current cost of the Bethlehem/Stablex treatment/disposal option, the likely cost (to the extent it can be determined) of treatment and disposal at a permitted U.S. Ecology facility, and other economic considerations that might affect how much mercury DOE likely will store at its long-term mercury storage facility, and how much may be routed instead to Canada, or managed differently. All these factors illustrate graphically why economic effects are so bound up with the environmental analysis DOE must conduct to satisfy NEPA. Discussing alternatives without considering costs, and without comparing costs to other management options, does not meet the requirements of NEPA.

DOE did not consider costs in either the 2011 or 2013 NEPA documents evaluating long-term storage options. Commenters on the 2013 SEIS asked why costs were not considered. DOE responded that “a fee structure has not been determined; however, it is expected that it would be competitive with the costs of other mercury storage options.” DEP'T OF ENERGY, FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT: LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY, DOE/EIS-0423-S1, 1-3, 2-48, 2-56, 2-57. DOE offers no basis for this assumption. See *Hughes River Watershed Conservancy V. Glickman*, 81 F.3d 437 (4th Cir. 1996) (“Misleading economic assumptions can defeat the first function of an EIS by impairing the agency's consideration of the adverse environmental effects of a proposed project.”).

DOE added that “much of the costs of mercury storage will be borne by the generators,” suggesting that DOE considers costs borne by generators as not relevant to government decision-making. *Id.* These responses utterly miss (or ignore) the importance of costs in this planning process. NGM by the way does not concede that generators' costs are not the concern of the government. Although MEBA does not say explicitly that DOE must manage or minimize costs to generators, the entire statute is built around two related goals: removing mercury from international commerce to reduce global mercury pollution, and providing a safe storage alternative for U.S.-generated mercury that can no longer be sold abroad and that cannot be legally disposed in the U.S. H.R. Rep. No. 110-444 at 6 (Nov. 13, 2007) (“The purpose of H.R. 1534 is . . . to prohibit the export of elemental mercury beginning in 2010 to reduce global mercury pollution; and to provide a long-term management and storage option for elemental mercury generated by private sources, at a facility to be designated by the Secretary of Energy, by 2010.”).

Congressman Tom Allen of Maine, the author of the House bill that became MEBA, described how the mercury storage facility became a part of the legislation:

Together with my friend Mr. Shimkus at the full committee markup, I offered an amendment to create a long-term mercury storage repository. This amendment was the result of a stakeholder process over the last several months to develop a consensus product.

153 Cong. Rec. H13552 (daily ed. Nov. 13, 2007). Congressman Allen inserted into the record a letter from trade associations representing generators, describing the negotiation from their perspective:

[T]he Committee-reported version of [MEBA] establishes a practical and workable domestic framework for sequestering the elemental mercury prohibited from export under the legislation. To develop this framework, our organizations worked diligently and collectively to reach consensus, each of us agreeing not to raise related mercury matters which may have prevented a successful outcome. Therefore, we hope the full House of Representatives will acknowledge the compromises made and approve H.R. 1534 without further changes.

Id. Signers represented the American Chemistry Council, the National Mining Association, the Chlorine Institute, the Environmental Council of the States, and the Natural Resources Defense Council. About the facility, Congressman Allen noted: “The bill does not require that all excess mercury be transferred to DOE; rather, it gives the private sector the option of placing mercury into storage at DOE.” Id.

DOE’s selection of a storage facility (or facilities) will play a decisive role in the amount it charges for storage. In turn, DOE’s storage fee will directly impact NGM’s and other generators’ mercury management decisions. If DOE charges too much for mercury storage, NGM may choose Bethlehem/Stablex in the future (or other options as they become available) instead of delivering mercury to the DOE facility. The DSEIS does not acknowledge this possibility and its environmental consequences. The DSEIS addresses the Bethlehem/Stablex option only in the context of the No-Action alternative:

Historically, generators have not used this option on a large scale. Considering that the costs to generators for this option would not be reimbursed by DOE, implementation of this option on a large scale is not likely and would be driven by economic considerations by the generators.

DSEIS at 4-2. This assumption by DOE is not entirely correct even in the context of the No-Action alternative. As noted above, NGM already has decided to send some currently generated mercury to Bethlehem/Stablex, even though it could have stored the mercury and been reimbursed (via credits) by DOE when the federal long-term storage facility finally opens. The DSEIS never reckons with the possibility that generators may choose Bethlehem/Stablex before the DOE facility opens, or instead of DOE long-term storage after the facility is operational. See *Morgan v. Walter*, 728 F. Supp. 1483, 1493 (D. Id. 1989) (finding U.S. Army Corp of Engineers was required to

consider impacts of private fish propagation facility prior to issuing permit for water diversion project because the projects were ‘links in the same bit of chain’).

An issue not discussed in the DSEIS, but likely key or even determinative for generators, is the cost of mercury purification.<sup>5</sup> Currently, DOE’s Waste Acceptance Criteria require that mercury delivered for long-term storage be purified to a level of 99.5%. As DOE is aware, Bethlehem Apparatus is the only U.S. facility currently purifying elemental mercury. The cost of purification is significant. Generators may opt for the Bethlehem/Stablex option to avoid purification, transportation, and storage costs. Depending on DOE’s decision and its costs, it is possible that the only mercury DOE will receive for long-term storage is mercury already in temporary storage and therefore required by MEBA to be delivered to DOE. See 42 U.S.C. §§ 6939f(g)(2)(B), 6939f(g)(2)(D).

Costs will be one of the most important factors in how and where U.S.-generated elemental mercury is managed, and how much of it is managed by DOE at its MEBA-mandated facility. Compliance with NEPA cannot be accomplished in this EIS without analysis of costs and the environmental impacts related to them. See *Native Village of Point Hope v. Jewell*, 77 Env’t Rep. Cas. (BNA) 1961, 44 Env’tl. L. Rep. 20016, 2014 U.S. App. LEXIS 1150 (9th Cir. Jan. 22, 2014), corrected, 740 F.3d 489, 2014 U.S. App. LEXIS 1222 (9th Cir. 2014) (rejecting EIS for failure to consider economic factors, including environmental impacts of potential variations in oil prices).

<sup>5</sup> These comments are based on the currently applicable DOE Waste Acceptance Criteria, updated in 2018.

### **Response:**

DOE disagrees that the planning process or NEPA analysis for mercury storage is deficient. See the response to Comment 13-3, which discusses the previous evaluation of 11 Federal facilities as alternatives for long-term management and storage of elemental mercury. These combined evaluations in three EISs clearly demonstrate, from an environmental impact perspective, that there is no significant difference in environmental effects between a Federal and commercial facility alternative. The one noticeable difference is that, by using existing facilities, there would be no impacts associated with new construction.

Partially in response to comments received from stakeholders during the early Fee Rule consultation period in the winter of 2020, DOE decoupled the preparation and publication of this SEIS-II and the preparation of the proposed Fee Rule until after the MEBA designation of one or more facilities for long-term management and storage of mercury. In fact, an ore processor made the following comment: *“DOE cannot accurately and fairly establish a fee, based on the pro-rata cost of long-term management and storage of elemental mercury delivered to the MEBA facility, if the Department has not yet designated the MEBA facility. Cost components such as storage fees, personnel costs, and others, are all site- dependent and cannot be reliably calculated before DOE has identified a facility and established a program for the long-term management and storage of elemental mercury at that facility.”*

The response to Comment 13-7 describes DOE’s NEPA approach to address these sequenced events.

Cost is one of the factors that will be considered, in connection with the facility designation and associated procurement process, and costs will again be considered in connection with the Mercury Storage Fee Rule that will be promulgated after one or more facilities are designated for long-term management and storage. Other factors considered during the facility designation would include schedule, permitting, technical considerations, risk, and policy. The purpose of this SEIS-II, however, is to evaluate and present any differentiation among alternatives relative to potential environmental impacts to inform the facility designation.

The specific costs associated with storage (as well as eventual treatment and disposal) will be fully evaluated and addressed in the Fee Rule. However, to analyze cost as a factor in connection with the MEBA storage facility designation decision, DOE prepared a storage cost comparison workbook, evaluating the expected range of costs for four scenarios: two scenarios evaluated in this SEIS-II (HWAD/Retrofit and generic commercial) and two DOE scenarios (“new build” and “DOE/Retrofit”). As reported in the response to Comment 13-3, the cost comparison workbook concludes that the HWAD storage scenario’s costs are comparable to (not significantly higher or lower than) private-sector storage costs. This cost comparison workbook has been included in the Administrative Record for this NEPA process and would also be included in the record to support any designation decision.

With regard to costs associated with the 99.5 percent by volume requirement, DOE has revised its Interim Guidance as described in Section 2.1.4 of this SEIS-II and has removed the 99.5 percent by volume elemental mercury criteria. The revised guidance emphasizes the requirements related to incompatible materials in waste containers and compliance with the requirements of 40 CFR §§ 264/265.172, which achieves the intended goal of ensuring container integrity during long-term storage.

As addressed in the response to Comment 13-1, DOE acknowledges the status of NGM’s mercury accumulation and plans for treatment of the 17 MT at Bethlehem Apparatus for eventual disposal in Canada. As appropriate, this Final SEIS-II reflects this data point. However, the plan to ship 17 MT to Canada for permanent land disposal does not constitute a trend among all generators. DOE anticipates, in the future NEPA evaluation for the Fee Rule, evaluating a range of potential inventories that address the generators’ option for treatment and disposal in Canada as opposed to using the DOE-designated storage option.

### **Comment 13-9**

#### **C. DOE Should Have Conducted a Scoping Process.**

DOE and CEQ NEPA regulations (the latter are adopted by reference into DOE regulations) do not require scoping for a supplemental EIS. 10 C.F.R. § 1021.311(f); 40 C.F.R. § 1502.9(c)(4); see also Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury, 86 Fed. Reg. 27838, 27840 (May 24, 2021) (“[A] public scoping process is not required for a DOE-issued SEIS.”). However, DOE in its discretion may conduct supplemental scoping, and “shall as appropriate employ scoping . . . and other methods . . . to avoid duplication and delay.” 40 C.F.R. 1502.4(b). Doing so in this case would have allowed DOE to hear concerns about the scope of the EIS from NGM, other generators, and communities before it took the consequential step of writing and issuing a draft EIS. A 30-

day scoping period would not have resulted in significant delay, and likely would have revealed our and others' concerns so that DOE could address them in its decision-making about the scope of this EIS.<sup>6</sup> We note that when DOE decided in 2013 to supplement its original 2011 EIS to consider three sites in New Mexico, it specified a 30-day scoping period, and held two public scoping meetings in the region where the new alternatives were located. Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury, 77 Fed. Reg. 33204 (June 5, 2012).<sup>7</sup>

Ten years have passed since this most recent scoping effort. Since then:

- (1) Congress amended MEBA (2016);
- (2) DOE issued a NEPA Supplement Analysis (2019);
- (3) DOE issued a ROD selecting WCS (2019);
- (4) DOE promulgated a mercury storage fee rule (2019);
- (5) A federal court vacated the mercury storage fee rule (2020);
- (6) DOE withdrew its selection of Waste Control Specialists, and amended the ROD to select Waste Control Specialists to receive mercury to which DOE is accepting title (2020);
- (7) DOE published another amended ROD withdrawing the decision to store mercury at Waste Control Specialists (2022); and
- (8) DOE issued a NEPA Interim Action Determination addressing DOE's pending selection of another facility to receive mercury to which DOE is accepting title (2022).

The 2013 SEIS was an extension of, and not a significant departure from, the 2011 EIS. In contrast, this DSEIS takes a very different approach, examining only existing facilities, focusing principally on commercial facilities, and entirely excluding DOE-owned facilities from consideration, all justified by the need and desire of DOE to act quickly. This fundamental departure from past analyses should have been scoped with public input.

Among other things, a scoping process would have allowed DOE to explain in more detail how and when it plans to apply NEPA analysis to each of the steps of its decision process: (1) selection of a facility; (2) determination of a mercury storage fee; (3) procurement; and (4) treatment and disposal. As it stands, the DSEIS says only that "any NEPA analysis" for the mercury Fee Rule will occur at a later time. DSEIS at 1-2, n.1. In 2019, DOE asserted that the 2011 EIS and the 2013 SEIS satisfied its NEPA obligations for the mercury storage fee rule, even though those NEPA documents do not contain any information about costs. See 84 Fed. Reg. 53066–67 (October 4, 2019) (proposed rule); Elemental Mercury Management and Storage Fees, 84 Fed. Reg. 70402, 70408 (December 23, 2019) (final rule).

Further, about treatment and disposal, DOE notes that it "does not analyze [elemental mercury] treatment and disposal in this SEIS-II because the specifics of it are too speculative at this time." DSEIS at 1-2, n.1. However, DOE also asserts that MEBA authorizes it to treat and dispose elemental mercury in long-term storage.<sup>8</sup> Id. And, although DOE also did not analyze treatment and disposal in the 2011 or 2013 NEPA documents, the single largest component of its 2019 mercury storage fee was the cost of treatment and disposal. See 84 Fed. Reg. at 53066–67 (October 4, 2019) (proposed rule); 84 Fed. Reg. at 70402–04 (final rule). In the 2019 mercury storage fee rule, DOE based its treatment/disposal fee component on Bethlehem/Stablex costs. 84 Fed. Reg. at 70402. If DOE has enough information about treatment and disposal to make it a

component of a mercury storage fee charged to generators, then it arguably also has enough information to evaluate treatment and disposal, at least based on the information currently available. CEQ regulations explain how to address reasonably foreseeable impacts for which there is incomplete or unavailable information. 40 C.F.R. § 1502.21(c).<sup>9</sup> There should no longer be any doubt that a complete NEPA analysis of this project must include consideration of the environmental impacts of mercury storage, treatment, and disposal, associated costs, and likely mercury generator actions based on cost and other factors.

<sup>6</sup> See 40 C.F.R. § 1500.4(i) (“Agencies shall reduce excessive paperwork by: . . . [u]sing the scoping process, not only to identify significant environmental issues deserving of study, but also to deemphasize insignificant issues, narrowing the scope of the environmental impacts statement process accordingly.”).

<sup>7</sup> DOE apparently believed it was required to provide scoping for a supplemental EIS. See 2013 SEIS at 1-7 (“As a preliminary step in the development of an EIS (or SEIS), regulations established by [CEQ] and DOE require “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a Proposed Action.”).

### **Response:**

The NEPA implementing procedures quoted by the commenter provide DOE with the option to include public scoping when preparing a supplemental EIS. DOE opted not to include public scoping but did conduct limited scoping when it reached out to potential vendors to determine the range of reasonable alternatives (see Section 2.2 of this SEIS-II). See response to Comments 13-7 and 13-8 for a description of the NEPA strategy for the various DOE actions and decisions and NEPA associated with the Fee Rule and potential, future treatment and disposal.

### **Comment 13-10**

#### **D. DOE’s Notice of Intent Should Have Invited Comment on Alternatives.**

Even without a new round of scoping, DOE could have and should have elicited important information from the public by requesting comment in its Notice of Intent to prepare the DSEIS. Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury, 86 Fed. Reg. 27838 (May 24, 2021). The new CEQ NEPA implementing rules, promulgated in 2020, require that the Notice of Intent include “[a] request for identification of potential alternatives, information, and analyses relevant to the proposed action.” 40 C.F.R. § 1501.9(d)(7). This requirement is separate from decisions and requirements about scoping. CEQ describes this requirement as intended to “ensure informed decision making and reduce delays.” 40 C.F.R. § 1500.3(b)(1). DOE acknowledges in the Notice of Intent that the new CEQ rules apply to its preparation of the DSEIS, but the Notice does not meet this new requirement. 86 Fed. Reg. at 27840. In this case, adding a request for comments could have served a similar purpose as scoping. And, since DOE published the Notice of Intent more than a year before it published the DSEIS, the agency would have had ample time to review comments and (if necessary) adjust its NEPA planning, without the delays that might have accompanied scoping.

### **Response:**

The quoted NEPA regulations apply when an agency is issuing an NOI for the purposes of beginning the public scoping process. Since this is a supplement, DOE has the option to hold

public scoping (as described in the response to Comment 13-9). Since DOE opted not to include public scoping, the DOE's Notice of Intent was published to provide the public with advanced notice that an SEIS would be issued on DOE's Proposed Action for long-term management and storage of elemental mercury (40 CFR § 1506.6(b)).

### Comment 13-11

#### E. DOE's Purpose and Need Statement Skewed the Alternatives Analysis.

CEQ regulations require the EIS to “briefly specify the underlying purpose and need to which the Agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. § 1502.13. The “purpose and need” statement in the DSEIS summarizes MEBA, as amended, including the 2013 ban on exports and Congress' direction to DOE to open a long-term mercury storage facility. However, it becomes clear that the real purpose and need in DOE's reckoning is to establish the long-term mercury storage facility as soon as possible. DOE notes (without appropriate context) that the MEBA deadline to open the facility was January 1, 2019. DSEIS at 1-2-1-3. In fact, MEBA required DOE to designate a facility or facilities for long-term mercury storage by January 1, 2010. Pub. L. 110-414, § 5(a)(1), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)). The original MEBA deadline to open the facility was January 1, 2013. *Id.* 5(a)(2), 122 Stat. at 4344. In 2016, frustrated by DOE's inaction, Congress amended MEBA to impose the 2019 deadline DOE references. Pub. L. 114-182, § 10(c)(1), 130 Stat. 448, 478-79 (codified at 42 U.S.C. § 6939f(a)(2)). Anticipating that DOE might also miss that deadline, Congress set a penalty: DOE would be responsible for temporary storage costs incurred by generators because of DOE's failure to open the facility. *Id.* § 10(c)(2), 130 Stat. at 479 (codified at 42 U.S.C. § 6939f(b)(1)(B)(iv)). Adding a belt to suspenders, Congress also directed that if DOE failed to open the facility by January 1, 2020, it would be required to accept title to any elemental mercury temporarily accumulated at generators' facilities. *Id.* (codified at 42 U.S.C. § 6939f(b)(1)(C)).

All three statutory deadlines have come and gone, and DOE has not yet opened a long-term mercury storage facility. The accruing penalties—in the form of credits against future mercury storage fees—explain why DOE is considering how it might best open the facility without further delay. However, it must be said that DOE's present time pressures arise from its own conduct, not from any emergency, external edict, or problem otherwise beyond its control. See *Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220 (10th Cir. 2002) (affirming unusual remedy of requiring an EIS and specific outcome because Fish and Wildlife Service's essentially unexplained four-year delay in protecting a selected species had pushed the species to the verge of extinction). DOE's failure to act is not by itself an appropriate purpose and need for the proposed action. The legitimate purpose and need for federal action here is Congress' statutory directive to establish a long-term mercury storage facility at a “facility or facilities of the Department of Energy,” so that elemental mercury generated in the United States which can no longer be exported can be safely accumulated and stored in a central location.<sup>10</sup> The provision of government mercury storage was a key component of the compromise that resulted in MEBA, and that obtained the support of the mining industry and others. See *infra*; *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 866 (9th Cir. 2004) (“Where an action is taken pursuant to a specific statute, the statutory objectives of the project serve as a guide by which to determine the reasonableness of objectives outlined in an EIS.”)

To be sure, DOE acknowledges the statutory purposes, but in the selection of alternatives, it elevates its need to act quickly above all other considerations. DSEIS at 2-6–2-11. On this basis, DOE eliminated from consideration any alternative other than ones that could offer existing facilities, satisfying DOE’s need to move with haste. DSEIS at 2-34. The result: seven commercial facilities, one Department of Defense facility, and zero facilities actually owned and operated by DOE.

In *Simmons v. United States Army Corps of Engineers*, the Court of Appeals for the Seventh Circuit concluded that the Corps’ purpose and need statement for a proposed reservoir was “so slender as to define competing ‘reasonable alternatives’ out of consideration (and even out of existence),” defeating the purpose of NEPA.” 120 F.3d 664, 666 (7th Cir. 1997). The project applicant in *Simmons* proposed a single reservoir to provide drinking water to two separate communities. The Corps’ EIS considered only single reservoir alternatives. “By focusing on the single source idea, the Corps never looked at an entire category of reasonable alternatives and thereby ruined its [EIS].” 120 F.3d at 670. Similarly, because DOE is anxious to open the long-term mercury facility as soon as possible, it eliminated an entire category of reasonable (and arguably mandatory) alternatives simply because they would require more time to establish.<sup>11</sup> DOE should revise the DSEIS and expand the alternatives analysis to include DOE-owned facilities.

<sup>10</sup> DOE’s assertion in the DSEIS (quoted above) that MEBA creates “schedule urgency” is inaccurate. See DSEIS at 2-34. The schedule urgency facing DOE is a self-created problem, not a dictate of MEBA.

<sup>11</sup> See 40 C.F.R. § 1502.5 (“The [EIS] shall be prepared early enough so that it can serve as an important practical contribution to the decision-making process and will not be used to rationalize or justify decisions already made ....”).

## **Response:**

See the responses to Comments 13-4 and 13-5 for an explanation of DOE’s selection of alternatives. The response to Comment 13-4 addresses whether DOE facilities were available as alternatives, and the response to Comment 13-5 provides the basis for DOE not evaluating new construction of a mercury storage facility in the Draft SEIS-II. Contrary to the comment’s assertion, it is not an overly narrow purpose and need statement or a failure to act, but rather considerations of the uncertainties related to potential inventory, the duration of a storage period, the mandates and objectives of the statute, the FAR’s preference for Federal agencies to acquire commercial services, and MEBA’s provisions with respect to not including the cost of new construction in the fee when existing facilities can be used to accomplish DOE’s MEBA requirements, that explain DOE’s selection of alternatives.

## **Comment 13-12**

### **F. DOE Improperly Constrained the Alternatives Analysis**

DOE’s focus on expediting the decision-making process impermissibly narrowed its consideration of alternatives. Of the DOE-owned facilities considered in the 2011 and 2013 EISs, DOE eliminated the DOE INL because it plans to “close the [Radioactive Waste Management] Complex once its current radioactive waste mission is completed, which is not expected for several years.” DSEIS at 2-7. The Bannister DOE site was eliminated because “portions” have been transferred to a private entity for residential redevelopment. *Id.* The DOE activities that were conducted at Bannister have been moved to the new Kansas City–National Security Campus (KCNSC). DOE

Savannah River, DOE Hanford, DOE Grand Junction, and DOE WIPP (along with two WIPP-adjacent sites) were eliminated because they would require new construction. Id.

DOE writes that it “reevaluated existing facilities on DOE property that could be repurposed for the management and storage of mercury.” DSEIS at 2-8. DOE’s inquiry included sending a May 3, 2021, memorandum to “other DOE offices and programs” asking for assistance in identifying DOE-owned facilities that could accommodate long-term mercury storage. DSEIS at 2-11; William I. White, Acting Assistant Secretary for Environmental Management, Memorandum for Distribution: Identification of Potential Long-Term Storage Facilities for Elemental Mercury, DSEIS Vol. 2 at 11–12 (May 3, 2021). The memorandum emphasized that DOE was inquiring only about “existing [DOE] facilities that are potentially available for the long-term storage of elemental (non-radioactive) mercury.” The memorandum included criteria the candidate facilities would have to meet, and it asked for responses by May 22, 2021.

DOE does not recount in the DSEIS what kinds of responses it received from DOE offices and programs but notes only that “[n]o additional facility alternatives were identified from this effort.” Id. Respectfully, it is difficult to believe that there is no DOE facility out of the approximately 30 facilities DOE owns (not including DOE offices or Oak Ridge) that could serve as the long-term mercury storage facility. Restricting the inquiry to existing facilities, imposing a short response window, and including a list of particular criteria that are unlikely to be found together at any one site, may have guaranteed the result: no DOE facilities were available.

CEQ NEPA rules provide that in ruling out further discussion of issues, “there should be only enough discussion to show why more study is not warranted.” 40 C.F.R. § 1502.2(b). DOE’s cryptic conclusion that “no additional facility alternatives were identified” does not meet even that flexible guideline. There is no information in the DSEIS about why DOE was unable to locate one site in its large complex of facilities that could serve the purposes of MEBA. Notably, DOE did not describe any responses it received to its May 3, 2021, memorandum, or detail any follow-up actions it took regarding responses, or efforts to press for responses where none were forthcoming. From the DSEIS, it appears that DOE’s entire effort consisted of sending a memorandum, requiring responses within a short turnaround time of two weeks, and deciding on the basis of those responses that no DOE facilities were suitable. The DSEIS creates the impression that DOE facilities were allowed to “volunteer” for the duty of hosting a long-term mercury storage facility, and if that is all that occurred, it is not surprising that no facility showed ability or interest.

In contrast, in the DSEIS DOE recounts years of interacting with and exploring the capabilities of commercial entities to host a DOE long-term storage facility:

- 2016: DOE consulted with facilities in 2016 who expressed interest in operating a long-term storage facility. DSEIS at 2-8.
- 2017-2018: DOE conducted further outreach, inviting seven private facilities (DOE refers to them as “MEBA Permittees” because each one had certified to DOE earlier that it met MEBA requirements to conduct temporary storage) to participate in stakeholder consultation meetings. At the time, DOE determined that Bethlehem and Waste Management showed interest and had the capability to conduct long-term storage of mercury. DSEIS at 2-9.

- 2019: DOE issued a Request for Task Proposal to WCS, who already had a basic ordering agreement (BOA) in place with DOE, requiring the company to submit a proposal for elemental mercury storage and long-term management, “because [DOE] has determined that WCS is the only BOA awardee capable of providing the required services at the level of quality required because the services ordered are unique or highly specialized.” Letter from Carin P. Boyd, DOE, to Matthew LaBarge, WCS (January 17, 2019).
- 2019: DOE issued a ROD designating WCS as the DOE Long-Term Mercury Storage Facility. Record of Decision for the Long-Term Management and Storage of Elemental Mercury, 84 Fed. Reg. 66890 (December 6, 2010 [*sic*]). DSEIS at 1-5.
- 2020: After withdrawing the WCS ROD (see Amended Record of Decision for the Long-Term Management and Storage of Elemental Mercury, 85 Fed. Reg. 63105 (October 6, 2020)), DOE published a Sources Sought Synopsis/Request for Information seeking private interest in hosting the long-term mercury storage facility. DSEIS at 1-6. As a result of this inquiry, DOE identified WCS (again) and Perma-Fix Environmental Services as commercial alternatives for long-term mercury storage. DSEIS at 2-9.
- 2020: In December 2020, DOE entered into basic ordering agreements with five companies for nationwide waste management services (specifying potential long-term storage of elemental mercury as an ancillary service). DSEIS at 1-6, 2-10. Three responded that they had existing facilities at which long-term mercury storage could occur. DSEIS at 2-10.
- 2021: DOE reached out again to the seven MEBA Permittees and determined based on responses that three companies—Bethlehem (one site), Veolia Environmental Services (one site), and Clean Harbors (three sites)—might be suitable hosts for the DOE Long-Term Mercury Storage Facility. *Id.*

When the two processes are compared—especially given the outcome: seven commercial alternatives and zero DOE facilities—it seems obvious that DOE has been focusing its resources and efforts on a commercial solution for long-term mercury storage, not on storage at a DOE-owned facility. This is contrary to the spirit—if not the letter—of DOE’s and CEQ’s NEPA implementing regulations. See, e.g., 40 C.F.R. § 1502.2(f) (“Agencies shall not commit resources prejudicing selection of alternatives before making a final decision.”); 40 C.F.R. § 1502.2(g) (“Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.”); see also 10 C.F.R. § 1021.101 (“It is DOE’s policy to follow the letter and spirit of NEPA . . . .”); see *Alaska Survival v. Surface Transp. Bd.*, 705 F.3d 1073, 1084 (9th Cir. 2013) (“A purpose and need statement will fail if it unreasonably narrows the agency’s consideration of alternatives so that the outcome is preordained.”) (citation omitted).

It would have served DOE’s (and the public’s) needs better to consider a range of alternatives in the DSEIS that included DOE properties, commercial facilities, and HWAD. The distinctions between and among these kinds of alternatives—and their environmental impacts—undoubtedly extend well beyond how quickly they can be placed into service.

The only current alternative under consideration that is not a commercial facility is HWAD. HWAD could offer important transportation advantages because it is in northern Nevada, where most of the mercury to be stored at the long-term storage facility is generated.<sup>12</sup> The Defense

Logistics Agency's mercury stocks were consolidated at HWAD beginning in 2010. The site currently stores 4,436 metric tons of product elemental mercury. DSEIS at 3-9. As required by the Nevada Division of Environmental Protection, the mercury is being transferred from three-liter flasks into one-metric ton containers, an activity that began in 2014 and is expected to continue until 2036. DSEIS at 3-9 – 3-10. There is no history of spills or accidents during delivery of mercury to HWAD or during transfer operations. DSEIS at 3-11.

Based on previous preliminary analyses, HWAD also may be the most cost-effective storage option.<sup>13</sup> In 2008, as Congress was considering the legislation that became MEBA, the Congressional Budget Office estimated the cost of long-term mercury storage would be approximately \$6,600 per metric ton, based on mercury storage costs at Oak Ridge. CONG. BUDGET OFFICE, COST ESTIMATE: S. 906, MERCURY EXPORT BAN OF 2008 (September 10, 2008), 4. In a 2018 consultation with stakeholders, DOE reported that HWAD's annual storage costs were approximately \$80 per metric ton. On that basis, industry (at DOE's request) estimated that the fee for long-term storage at HWAD would be about \$7,750 per metric ton, a figure which included capital expenditures to prepare the HWAD buildings, storage costs of \$80 per metric ton per year for 40 years, and treatment and disposal costs to be incurred in year 41, at the cessation of storage. See MICHAEL S. GIANNOTTO AND STEVEN G. BARRINGER, POTENTIAL OPTIONS AND FEE STRUCTURE FOR THE LONG-TERM MANAGEMENT OF MEBA MERCURY BY THE DEPARTMENT OF ENERGY (August 29, 2018), 6–9 (attached as Appendix 1).

Despite HWAD's significant potential advantages, DOE gives HWAD short shrift, for essentially the same reason that it eliminated DOE-owned facilities: leasing, RCRA permitting, and consultation with the Nevada State Historic Preservation Officer “could add significant time (i.e., three years or more) to the schedule for meeting DOE's statutory obligation under MEBA.” DSEIS at 2-23 (emphasis added).<sup>14</sup>

DOE should not have excluded alternatives from consideration because they cannot meet a deadline that passed ten years ago (the original 2013 deadline), four years ago (the 2019 deadline), or three years ago (the 2020 deadline). By eliminating any alternative that would require new construction, and by deprioritizing HWAD because of permitting requirements, DOE has effectively and improperly constrained the analysis of alternatives to the seven commercial facilities addressed in the DSEIS. *Van Abbema v. Fornell*, 807 F.2d 633 (7th Cir. 1986) (rejecting Corps of Engineers EIS for failure to adequately evaluate economics of and alternatives to coal transloading facility); see also *Nat'l Parks & Conser. Ass'n v. BLM*, 586 F.3d 735 (9th Cir. 2009) (affirming NEPA challenges to Bureau of Land Management's EIS because, although it had a mix of private and public objectives, the purpose and need statement was “so narrowly drawn as to foreordain approval” of its selected action).

It is fair to say that NGM has a greater and more direct interest than any other mercury generator in seeing the long-term mercury storage facility opened as soon as possible. NGM also agrees that the ability to open quickly is one factor that to be considered in the alternatives analysis. However, eliminating alternatives altogether from consideration on this basis goes too far. It elevates DOE's need to hurry (a problem of its own making) above all other purposes and considerations for the action. It predetermines the outcome of the decision-making process and deprives reviewers of a thorough NEPA analysis.

<sup>12</sup> To meet DOE's current Waste Acceptance Criteria, mercury generated in Nevada would first have to be transported to a facility where it can be purified to DOE's standard of 99.5%, diminishing the location advantage of HWAD. See DEP'T OF ENERGY, Waste Acceptance Criteria for the Storage of Elemental Mercury at the U.S. Department of Energy Long-Term Elemental Mercury Storage Facility, DOE/EM-0007 (2018), 5, 10, 14, 18. HWAD's location advantages would become much more significant if DOE modified the Waste Acceptance Criteria. See DSEIS at 2-4, n.4.

<sup>13</sup> In 2008, as Congress was considering the legislation that became MEBA, the Congressional Budget Office estimated the cost of long-term mercury storage would be approximately \$6,600 per metric ton, based on mercury storage costs at Oak Ridge. CONG. BUDGET OFFICE, COST ESTIMATE: S. 906, MERCURY EXPORT BAN OF 2008 (September 10, 2008), 4. In 2018 consultation with stakeholders, DOE reported that HWAD's annual storage costs were approximately \$80 per metric ton. On that basis, industry (at DOE's request) estimated that the fee for long-term storage at HWAD would be about \$7,750 per metric ton, a figure which included capital expenditures to prepare the HWAD buildings, storage costs of \$80 per metric ton per year for 40 years, and treatment and disposal costs to be incurred in year 41, at the cessation of storage. See MICHAEL S. GIANNOTTO AND STEVEN G. BARRINGER, POTENTIAL OPTIONS AND FEE STRUCTURE FOR THE LONG-TERM MANAGEMENT OF MEBA MERCURY BY THE DEPARTMENT OF ENERGY (August 29, 2018), 6-9 (attached as Appendix 1).

<sup>14</sup> Compare with DOE's rationale for excluding any alternative that would require new construction:

New construction would add at least three years, when compared to using existing facilities, negatively impacting the statutorily imposed schedule for DOE's receipt of elemental mercury and potentially subjecting DOE to additional liabilities under 42 U.S.C. § 6939f(b)(1)(B). Because these would be contrary to the purpose and need for this action, alternatives that required the construction of new facilities were thus dismissed from further analysis in this SEIS-II.

## Response:

The alternatives analysis was not "improperly constrained." As identified in Section 1.2 of this SEIS-II, Purpose and Need, MEBA established January 1, 2019, as the date by which a DOE facility for the long-term management and storage of elemental mercury generated within the United States must be operational. Despite this statutory milestone date having passed, DOE needs to designate a facility and begin accepting elemental mercury as soon as practicable to comply with statutory obligations and minimize the elemental mercury accumulating at ore processor sites, as provided for in the *Chemical Safety Act of 2016*. Additionally, costs are continuing to be incurred and could result in additional costs passed on to taxpayers.

See responses to Comments 13-3 and 13-5 relative to DOE's alternatives analysis. As mentioned in the response to Comment 13-3, the 2011 Mercury Storage EIS and the 2013 Mercury Storage SEIS, found that the potential environmental impacts of storing and managing up to 10,000 MT of elemental mercury at any of the 11 government facility alternatives are not noticeably different than the impacts of storing and managing up to 7,000 MT at any of the seven existing commercial facilities evaluated in this SEIS-II. The one noticeable difference is that, by using existing facilities, there would be no impacts associated with new construction. The response to Comment 13-5 addresses how the uncertainty surrounding the timing of the potential approval of a treatment and disposal method affects the potential duration of the mercury storage and the potential size of the storage facility. The response to Comment 13-5 also addresses DOE's rationale for not evaluating the construction of a new DOE facility; that is, MEBA's provisions with respect to the cost of new construction being recoverable in the fee only if MEBA's requirements could not be accomplished with existing facilities. This provides additional justification for DOE's preference for existing facilities over new construction.

See response to Comments 1-1 and 13-4 relative to identification of a potential DOE-owned facility. It should also be noted that the criteria used to identify DOE facilities as an alternative in

this SEIS-II were similar to those used to identify DOE facilities for the original 2011 Mercury Storage EIS, which are provided in Section 2.2.4 of this SEIS-II. DOE's Office of Environmental Management received responses from DOE field offices in Idaho, Nevada, Tennessee, and South Carolina, as well as the DOE Office of Legacy Management. Each of these field offices and programs evaluated their existing facilities against the specified mercury storage needs and established criteria. After communications with these offices and programs, DOE did not identify any existing facilities that could reasonably be used for this proposal without significant modification and RCRA permitting. Additionally, the Federal Government, including DOE, has a general policy to use commercial services and capabilities when determined to be sufficient to meet the mission needs. Title 41 U.S.C. 3307, *Preference for commercial products and commercial services*, is implemented through the FAR Parts 10, 11, and 12.

See responses to comments 13-3 and 13-8 for a discussion of relative cost comparisons.

### **Comment 13-13**

G. MEBA Requires Long-Term Mercury Storage at a "Facility (or Facilities) of the Department of Energy.

The omission of DOE-owned or -operated facilities is especially problematic because MEBA explicitly directs DOE to 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 the Department of Energy, for the purpose of long-term management and storage of elemental mercury generated within the United States." Pub. L. 110- 414, § 5(a)(1), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)). DOE reads this language to include commercial facilities that it does not own, if DOE has "an appropriate level of responsibility and control over the facility." DSEIS at 1-2. DOE continues:

Although the phrase "facility or facilities of [DOE]" is not defined in MEBA, DOE has a longstanding practice in various other contexts of leasing facilities to accomplish the Department's core mission. Consistent with that practice, DOE construes the term facility of DOE to include a facility leased from a commercial entity or another Federal agency, over which DOE provides an appropriate level of oversight and guidance.

Id. On the contrary, the language of MEBA is unambiguous, and therefore not available for DOE to interpret. *Digital Realty Trust, Inc. v. Somers*, 138 S.Ct. 767, 777 (2018); *Chevron U.S.A. v. Nat. Res. Def. Council, Inc., et al.*, 467 U.S. 837 (1984). DOE's longstanding practice notwithstanding, the agency has not cited any other instance in which Congress explicitly directed it to designate "a facility or facilities of the Department of Energy" where a commercial facility lease was deemed to be consistent with congressional intent. If the practice is common, as DOE insists, DOE should be able to offer some examples that corroborate its interpretation.

There are also clues in other MEBA language, and in the Senate and House committee reports accompanying the legislation, that Congress meant exactly what it said. For instance, the statutory language specifies that DOE cannot designate the "Y-12 National Security Complex or any other portion or facility of the Oak Ridge Reservation of the Department of Energy." Pub. L. 110-414,

§ 5(a)(1), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)) (emphasis added). This language supports the conclusion that when Congress said “facility or facilities of [DOE], it meant a facility owned and operated by DOE. See *Powerex Corp. v. Reliant Energy Serv.’s*, 551 U.S. 224, 232 (2007) (“A standard principle of statutory construction provides that identical words and phrases within the same statute should normally be given the same meaning.”).

Senator Lamar Alexander (R-TN) added minority views to the report of the Senate Environment and Public Works Committee on S. 906 (the bill that became MEBA). Senator Alexander observed:

Although [Oak Ridge] isn’t mentioned by name in S. 906, it’s clear to everyone who has studied this issue—including the Congressional Budget Office (CBO)—that the bill as currently written would send the nation’s mercury there.

S. Rep. No. 110-477, at 15 (Sept. 22, 2008). His mention of CBO refers to that office’s estimate of projected costs of MEBA—also summarized in the House and Senate committee reports—which assumed that mercury storage would occur at Oak Ridge and based its economic analysis on that assumption. *Id.* at 12. CBO made that assumption, widely shared by bill sponsors and stakeholders, because DOE has stored 1,200 tons of its own mercury at Oak Ridge for decades. See, e.g., 153 Cong. Rec. H13553 (daily ed. Nov. 13, 2007) (statement by Rep. Wamp (R-TN)) (“... I think the likely place that this mercury is going to come is to my district, Oak Ridge, Tennessee. Everybody within DOE and the NNSA, the National Nuclear Security Administration, expects this mercury to come to the Y-12 National Security Complex.”) In the end, to gain Senator Alexander’s support, the legislation had to be amended to say explicitly that DOE could not designate the Oak Ridge facility. Though Oak Ridge was excluded, the context illuminates what Congress had in mind: long-term storage at a facility owned by DOE. The Senate Committee Report goes further:

The Federal Government has already proven that it can store mercury for long periods of time. Federal surplus mercury is currently stored in a number of different locations. The Department of Defense, which holds more than 4,000 metric tons, manages its own stockpiles. The Department of Energy, which holds more than 1,300 metric tons, also manages its stockpiles.

S. Rep. No. 110-477 at 9; see also H.R. Rep. No. 110-444, at 8 (November 13, 2007) (“The Committee received testimony and information from officials at the Department of Energy that storage of elemental mercury began at its facility in Oak Ridge, Tennessee in 1963 and that there is no history of a flask that has leaked.”). This background makes clear that Congress directed DOE to accept elemental mercury for long-term storage because the Agency already had a successful track record of storing its own mercury at its own facility, not in the custody of a contractor.

The statute is clear. Even if it were not clear, and DOE had room to interpret, DOE’s interpretation is inconsistent with Congress’ clear intent. In view of the unambiguous statutory language, and in the light of this legislative history, DOE’s decision in the DSEIS to exclude consideration of storage at any of its own facilities should be re-examined.

**Response:**

The commenter's assertions are not consistent with, or supported by, MEBA's text, purpose, legislative history, or DOE's operational history, which demonstrates that DOE has utilized a range of ownership and lease arrangements to accomplish its mission activities. If Congress had intended to limit a designation under MEBA section 5(a)(1) to a DOE-owned facility, it could have easily specified that DOE must designate a facility or facilities *owned by* the Department of Energy. Instead, Congress's use of the more flexible "of the Department of Energy" language and the broad authority granted the Department in MEBA section 5(f) demonstrates: (1) congressional recognition that DOE regularly uses both DOE-owned and DOE-leased facilities to accomplish its mission, and (2) congressional intent that DOE have flexibility to exercise its technical expertise to select a facility that best serves the various requirements and purposes of MEBA and the fiscal and mission responsibilities of the Department, regardless of ownership.

Furthermore, DOE does not consider ownership to be the primary—let alone the determinative—factor regarding whether a facility is "of the Department of Energy" under MEBA. Rather, DOE interprets this phrase to focus on DOE's control over, and responsibility for, the facility's operation. Specifically, DOE has interpreted "facility of the Department of Energy" to be a facility over which DOE exercises the authority necessary to ensure that the facility is managed and operated in compliance with MEBA and other applicable legal requirements, including those addressing the protection of human health and the environment. See responses to Comments 1-1, 1-3, 5-7, and 8-4; text in Section 1.2 of this SEIS-II; and DOE's paper that includes additional background information and support for its interpretation. The paper is included in the Administrative Record for this NEPA action. This paper would also be included in an Administrative Record for any designation decision.

**Comment 13-14****H. The DSEIS Should Address the Extra-Territorial Impacts of DOE's Proposed Action.**

Environmental impacts that occur outside the United States as a result of DOE actions must be considered in a NEPA analysis. 10 C.F.R. §1021.102(b). This requirement is based on Executive Order 12114, issued in 1979, which emphasizes that U.S. officials taking such actions should "be informed of pertinent environmental considerations and [should] take such considerations into account, with other pertinent considerations of national policy." Exec. Order No. 12114, § 1-1, 44 Fed. Reg. 1957 (January 4, 1979). The actions triggering NEPA compliance include "major Federal actions significantly affecting the environment of a foreign nation not participating with the United States and not otherwise involved in the action." Id. § 2-3(b). This rule clearly applies to the environmental impacts that may result from increased mercury disposal in Canada, a foreseeable result of DOE's No-Action alternative as well as its Proposed Action.<sup>15</sup> See *Gov't of Man. v. Salazar*, 691 F. Supp. 2d 37, 51 (D.D.C. 2010) (In requiring government to consider impacts of transfer of biota from water basin, the court noted that, although "NEPA does 'not require assessment of environmental impacts within the territory of a foreign country,' . . . the CEQ 'has determined that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States.'" (citing CEQ Guidance on NEPA Analyses for Transboundary Impacts (July 1, 1997)).

As noted above, the DSEIS does address whether generators might use the Bethlehem/Stablex treatment/disposal option, but only in the context of the No-Action alternative. DSEIS at 2-32, 2-33, 2-39, 3-61, 4-2–4-9. The analysis is perfunctory, possibly because generators have not used the Bethlehem/Stablex option on a large scale thus far, and DOE assumes that will continue to be the case. See DSEIS at 2-33, 4-2, 4-8. Given NGM’s current plans to use the Bethlehem/Stablex option for currently generated mercury, and the potential for a significant increase in shipments to Canada depending on the cost to store at DOE’s long-term facility when it opens, NGM believes DOE must revisit the issue of disposal in Canada and address it more detail. To be clear, Bethlehem/Stablex is not NGM’s preferred alternative. The shipments are possible because of a 1986 bilateral treaty between the U.S. and Canada allowing cross-border shipments of hazardous and solid wastes between the two nations. However, the shipments require export permits, notifications, and other administrative steps that make the process cumbersome and add layers of time and expense. See *Sierra Club v. Marsh*, 744 F. Supp. 352, 354 (D. Me. 1989) (“NEPA regulations require that an EIS discuss both the direct and indirect (or secondary) impacts of a proposed project. Indirect impacts are those ‘caused by the action [that] are later in time or farther removed in distance [than the direct impacts], but are still reasonably foreseeable.’”) (citing 40 C.F.R. § 1502.16).

DOE makes unsupported assumptions and conclusions in the DSEIS about potential disposal in Canada. For instance, about land use and ownership, DOE concludes that Bethlehem/Stablex would not result in impacts at the generator site. DSEIS at 4-3. In fact, generators who ship to Bethlehem/Stablex rather than holding mercury in temporary storage would need significantly less RCRA-compliant storage space, which in turn would require fewer inspections and less RCRA compliance generally. DOE’s conclusion of no land use impacts for the treatment and disposal facilities (because the facilities are already permitted), *id.*, does not take into account the possibility that significantly increased use of Bethlehem/Stablex could result in expansions for those facilities, which would require additional permitting in the U.S. and Canada. DOE did not consider the existing capacity of Bethlehem or Stablex to treat and dispose of the increased flows of elemental mercury that may result.

Similarly, less temporary storage at generator sites could mean fewer potential impacts to geologic or soil resources, and greater impacts on these resources at Bethlehem and Stablex. DSEIS at 4-4. Contrary to DOE’s conclusion, significantly increased shipments of mercury could result in expansion or new construction at Bethlehem/Stablex. *Id.* As far as can be determined from the DSEIS, DOE also did not contact U.S. Ecology to inquire about its current and future capacity to receive U.S.-treated mercury sulfide. Accordingly, DOE’s conclusion that treatment/disposal would not result in greater impacts at those facilities is premature. It appears that DOE did interact in some measure with Bethlehem, but only in regard to its existing ability to serve as the DOE long-term mercury storage facility, not about its capacity to convert elemental mercury to mercury sulfide, or, for that matter, about the duration and stability of its contractual arrangements with Stablex.

The analysis of impacts to water and air resources is similarly constrained. DSEIS at 4-5. In this section, DOE notes that “the potential impacts of transportation of mercury and the potential risks to waterbodies and ecological receptors would be similar to that described for the Proposed Action.” *Id.* DOE does not take into account that as a result of the Proposed Action, transportation (and related impacts) could be moved from the U.S. into Canada. Canada could go from very little

mercury transportation based on current use of the facility to shipment of hundreds of metric tons per year of U.S. mercury sulfide. The proper analysis should focus on the shift of mercury management from one country to another, rather than just the rearrangement of similar impacts in different locations. Also, the potential impacts of transportation to Canada would be different from transportation within the U.S. because shipments to a DOE long-term storage facility or purification plant would be of liquid elemental mercury, while shipments from Bethlehem to Stablex in Canada would be of solid mercury sulfide.

Potential impacts to air resources would change, at least in extent, at generator, treatment, and disposal facilities. Shipments to Bethlehem following by shipments to Stablex in Canada would require significantly more transportation over longer distances, increasing greenhouse gas and other emissions, impacts the DSEIS does not address or foresee. And DOE's No Action or Proposed Action alternatives could move a significant portion of these potential impacts from the U.S. to Canada, a consideration that DOE does not take into account at all when it notes that the disposal facility is permitted and therefore increased shipments to it would not result in impacts. Id; see also DSEIS at 4-6 (transportation impacts to ecological resources); 4-7 (impacts to cultural or paleontological resources); 4-21 (normal operations risks).

DOE assumes, apparently without checking, that site infrastructure at Bethlehem and Stablex would not be affected because those facilities "would be managing mercury treatment and disposal within their expected permit conditions and expected operating parameters." DSEIS at 4-7. This conclusion may well be accurate in the short term but does not take into account the possibility that existing capacity at these facilities may not be sufficient to handle the increased mercury treatment and disposal that may result based on DOE's Proposed Action or its No-Action alternatives. Similarly, DOE assumes without evident basis that Bethlehem and Stablex could handle larger amounts of mercury without facility and landfill expansions and permit modifications. DSEIS at 4-7-4-8.

In addition to these specific analytic deficiencies, the DSEIS analysis does not address the larger concern that DOE's Proposed Action or No Action alternatives could result in the bulk of U.S. elemental mercury being managed in Canada rather than at a facility of the Department of Energy in the United States. That outcome has implications for the United States' relationship with Canada and could be seen to be inconsistent with congressional intention in enacting MEBA. These considerations should be recognized and considered in the DSEIS.

15 The Executive Order also requires NEPA evaluation of extraterritorial effects when the federal action provides "[a] product, or physical project producing a principal product or an emission or effluent, which is prohibited or strictly regulated" in the U.S. because of its toxicity. Executive Order 12114, § 22-3(c); see also COUNCIL ON ENVTL. QUALITY, Memorandum for Heads of Agencies with International Activities (February 27, 1979), available at 44 Fed. Reg. 18722 (March 21, 1979); DEP'T OF ENERGY, Guidelines for Implementation of Executive Order 12114 – Environmental Effects Abroad of Major Federal Actions (December 18, 1980), § 4.3, available at 46 Fed. Reg. 1007 (January 5, 1981). While this provision is not directly applicable to DOE's Proposed Action, it expresses a policy concern that should be addressed in the DSEIS: disposal of U.S. mercury in Canada.

### **Response:**

Under MEBA, DOE is required to take two actions: designate a facility(ies) and establish a fee for use of the facility. The designated facility would provide an option for elemental mercury management and storage. However, MEBA does not mandate that ore processors and other

mercury generators use the DOE facility or prohibit them from using other non-DOE mercury management and storage options. In the current NEPA analysis, DOE is analyzing the potential impacts related to designation of a DOE management and storage facility. Under this Proposed Action, the DOE is not proposing any actions that would result in potential impacts outside of the United States. This SEIS-II acknowledges that, under the No-Action Alternative, ore processors and other generators, as they do today, would continue to have the option to send their elemental mercury to a treatment facility and to an Organization for Economic Cooperation and Development country (possibly Canada) for disposal as long as the treated mercury met the disposal facility's waste acceptance criteria. The option that a generator has to send the treated mercury to Canada will be available as long as that facility (e.g., Stablex) has capacity to accommodate the material from the United States and the treated waste meets the facility's waste acceptance criteria. DOE anticipates, in the future NEPA evaluation for the Fee Rule, evaluating a range of potential inventories that address the generators' option for treatment and disposal in Canada as opposed to using the DOE-designated storage option.

As an element of the future NEPA documentation for the Fee Rule, DOE would address whether permitted treatment facilities (e.g., Bethlehem Apparatus) have existing capability to treat the potential throughput of elemental mercury under the inventory scenarios. Preliminary feedback from Bethlehem Apparatus indicates that adequate capacity exists under recently modified permits.

Potential environmental impacts in Canada from the potential disposal of stabilized mercury waste forms at Stablex (a current option for processors) are beyond the scope of this SEIS-II. The NEPA implementing regulations at 40 CFR § 1508.1 define a major Federal action and state, "*Major Federal action does not include the following activities or decisions: (i) Extraterritorial activities or decisions, which means agency activities or decisions with effects located entirely outside of the jurisdiction of the United States...*" NEPA does not require an analysis of the potential environmental impacts that could occur within another sovereign nation that result from actions approved by that sovereign nation. The existence and operation of Stablex will occur regardless and independent of DOE's Proposed Action analyzed in this SEIS-II. For these reasons, potential environmental effects that may occur in Canada are not included in this SEIS. Canada has its own well-established environmental impact assessment laws and review procedures at both the Federal and provincial level (e.g., the *Canadian Environmental Assessment Act* and the *Québec Environment Quality Act*). Any waste form that was proposed for receipt and disposal at Stablex would have to satisfy the waste acceptance criteria for the Stablex facility, which is an integral element of the permit granted by the Canadian regulatory authorities.

With regard to a potential, future U.S. treatment and disposal option disposal in the United States is not currently allowed by law, therefore, analysis of the potential capacity and specific impacts of disposal of treated elemental mercury in the United States is speculative. The Final SEIS-II includes a new Section 2.10.3 to provide a qualitative analysis of the potential impacts of treatment and disposal of the mercury in the United States. As noted in this SEIS-II, DOE would develop additional NEPA documentation prior to proceeding with post-storage management of the elemental mercury.

***Public Hearing Transcript – August 2, 2022***

**Comment 14-1 (Jeff Stahl, Veolia)**

Fairly recently, DOE put forth an RFP for the long-term storage of elemental mercury. How does that RFP get reconciled with the SEIS process that you guys are going through, also? My understanding is that the RFP was put forth without any real qualifications required, other than having a RCRA Part B license. However, the SEIS is evaluating only eight facilities in the U.S. So how does that kind of get reconciled together into a final decision?

**Response:**

Section 2.2 of this Mercury Storage SEIS-II identifies the various methods that DOE used to identify potential alternatives for a mercury storage facility. These alternatives included: (1) permitted private facilities (seven commercial entities) around the United States that had previously submitted notification/certification letters to DOE stating that they meet the requirements to accept and store elemental mercury until a DOE-designated storage facility opens; (2) responses to an Sources Sought Synopsis/Request for Information that DOE issued on October 14, 2020, to identify companies capable of potentially providing these services; (3) inclusion of the contract holders of existing basic ordering agreements to conduct nationwide waste management services, including ancillary services such as the long-term management and storage of elemental mercury; and (4) reaching out to DOE facilities that could potentially meet the specific criteria for long-term mercury management and storage. All responders to the RFP have been included as a reasonable alternative in this SEIS-II. If DOE selects an action alternative (as opposed to the No-Action Alternative), the ROD would designate one or more of the facilities evaluated in this SEIS-II for long-term management and storage of elemental mercury.

The designation decision would be based on a combination of factors such as cost, schedule, permitting, risk, policy, procurement requirements, and environmental and technical considerations.

**Comment 14-2 (Mark Watson, City Manager of Oak Ridge)**

I wanted to just make a comment with regard to this procurement. The procurement is for a building located probably a couple of miles outside of our city limits. The far city limits has a large number of residential housing associated with that. You've got a large number of spread-out residential housing. And the buildings that have been built have been in a light commercial usage. But if we look at the structure of the facilities, will that be something that's taken into account, as far as this long-term storage? Or are we relying just on the canisters that protect this?

So what I would say to your people that are responding to the RFQ and the proposal, is whether it is conducive to long-term storage and in good enough condition to provide protective background for that. So I think the City of Oak Ridge because we have one of the more astute hazardous materials squad within the region, I think we need to know more about this for any kind of support for the proposed site.

**Response:**

All of the alternatives evaluated in this SEIS-II either already have existing permits for storage of elemental mercury or would obtain such a permit (or modification to existing permits) prior to acceptance of elemental mercury for long-term management and storage. With regard to the alternative facility in Kingston, Tennessee, DSSI received a modification of their current hazardous waste permit for the CSB on June 17, 2022, according to the TDEC. DOE would coordinate with TDEC prior to any designation of the DSSI facility.

Safety of the workers and public is addressed by a combination of the regulatory requirements (e.g., RCRA) for the permitted facility and the specific containers used to store mercury. The features of the storage facility and the containers are provided in Section 2.1.4 of this SEIS-II and include, at a minimum, proper spill containment features and emergency response procedures. They must be fully enclosed, weather-protected buildings, with reinforced concrete floors able to withstand heavy structural loads, ventilated storage and handling areas, fire suppression systems, and security and access controls. Under normal conditions, the containers would not be routinely opened at the facility. They would be stored and monitored until potentially transferred to another facility for treatment and disposal. More details regarding the specific requirements for a permitted facility can be found in DOE's 2023 Interim Guidance, which is referenced in Section 2.1.4 of this SEIS-II.

***Public Hearing Transcript – August 4, 2022***

**Comment 15-1 (James Williams, Environmental Technology Council Executive Director)**

ETC supports the efforts being taken by DOE. The agency's Draft Supplemental EIS notes that the specific requirements for a DOE mercury storage facility are based on RCRA, Resource Conservation and Recovery Act, requirements and will be included in the procurement and contractual documents associated with the designated facility or facilities.

As the national trade association representing companies that own and operate RCRA-regulated treatment, storage, and disposal facilities, ETC supports DOE's efforts to ensure the selected facility is RCRA compliant. Such facilities are regulated and inspected by EPA and meet the highest standards in terms of safety and security.

For example, RCRA-regulated treatment, storage, and disposal facilities are required to have proper spill containment features and emergency response procedures. They must be fully enclosed, weather-protected buildings(s). They are also required to have reinforced concrete floors able to withstand heavy structural loads, ventilated storage and handling areas, fire suppression systems, and security and access controls.

These are just a very short list of the many requirements in terms of safety and security that RCRA requires.

In short, RCRA has resulted in an infrastructure of regulated facilities that are designed and operated for the specific purpose of properly storing and disposing toxic, excuse me, chemical waste. Given that exposure to mercury can damage the nervous system, kidneys, liver, and immune system, it is imperative that DOE act quickly to finalize a designated facility and

subsequently move forward with establishing terms, conditions, and procedures—for example, storage fees—that are necessary to carry out the agency’s long-term management and storage function.

Finally, I pose the question to the agency. In making the facility determination, will DOE be considering lowering the purity level of 99.5? This is a question that has been posed by some of the ETC members, and it is of concern that we work with DOE moving forward on this issue, depending on what direction they decide to move.

**Response:**

DOE acknowledges the commenter’s support for the proposal. With regard to the question involving the 99.5 percent by volume level, DOE has revised its Interim Guidance as described in Section 2.1.4 of this SEIS-II. The revised guidance does not assume a DOE-specified minimum percent by volume for elemental mercury accepted for long-term storage at the DOE-designated facility. Rather, it focuses on applicable RCRA and DOT regulations related to treatment standards and compatibility of the waste with the containers to ensure that the integrity is not compromised.

**Comment 15-2 (Tom Manz)**

Mr. Williams just asked the question I was going to ask. Thank you.

**Response:**

Thank you for your participation.

**Comment 15-3 (Holli Bechard, Veolia Environmental)**

When is the comment period done? Is that August 22<sup>nd</sup>?

**Response:**

In response to a request to extend the public comment period, DOE issued a second *Federal Register* notice on August 12, 2022 (87 FR 49817), announcing a 15-day extension of the public comment period. The 60-day public comment period ended on September 6, 2022.

**C.3 Comment Documents**

This section contains the comment document images marked to show the delineated comments. The original comment documents are included as part of the project Administrative Record.

**From:** [ElementalMercury\\_NEPA](#)  
**To:** [Kumar, Anjali \(INTERN\)](#)  
**Subject:** FW: [EXTERNAL] comments  
**Date:** Friday, July 22, 2022 9:43:55 AM

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**From:** cosmo Zimmer <magentasofa@gmail.com>  
**Sent:** Thursday, July 21, 2022 11:45 PM  
**To:** ElementalMercury\_NEPA <elementalmercury\_nepa@em.doe.gov>  
**Subject:** [EXTERNAL] comments

This is in response to the Federal Register Notice of June 8, 2022, regarding the Draft Mercury Storage SEIS-II.

The entire NEPA analysis has a major flaw. It is in the selection of alternatives. The process that was used may have violated the Mercury Export Ban Act (MEBA).

MEBA requires that the Secretary of Energy designate a facility of the Department of Energy for long term storage of elemental mercury. To find possible storage facilities, the headquarters of the Department basically queried the various DOE sites across the US whether there were any facilities suitable for long term storage of elemental mercury. Instead of asking this question of the DOE sites across the US, Headquarters might as well have simply asked, "Does anyone want to volunteer one of their buildings to store mercury?" In either case, the response was or would have been the same. "Not us!" Or perhaps, "It will take too long for us to do it."

1-1

In doing this, the Secretary seems to have violated MEBA, because he/she allowed the designation that was his/her decision under the law, to effectively be vetoed by the career staff in the field. What should have happened, is that headquarters would have searched the list of excess facilities and identified the most promising, and then the Department would have screened them and developed plans to modify a specific facility to meet the storage requirements of MEBA. Then the Secretary could make a designation that Congress had expected would occur.

1-2

There are likely several excess facilities that would be able to store elemental mercury with a small amount of modification. Among the most obvious ones are the large buildings near Paducah KY and Piketon OH. These buildings were used in the enrichment of uranium and were among the largest buildings in the world when they were constructed. Enrichment was by the gaseous diffusion process which involved many stages to achieve the desired enrichment. These stages were housed in a portion of the building called a bay. While the size of the bay varies between the different buildings, a single bay could store a large quantity of mercury, easily 1000, 2000 Metric tons of mercury or more on just the first or ground floor. The gaseous diffusion equipment and piping is located above the first floor. If this equipment and piping needed to be removed in order that the storage facility met all the requirements for storage of elemental mercury, this removal would be covered by the Uranium Enrichment Decontamination and Decommissioning (D&D) Fund. These funds are identified as PBS PA-0040 and PO-0040 in the FY2022 budget request. During the 2016 Waste Management Symposia, it was mentioned that the D&D of the conversion facilities in Ohio

was scheduled for completion in 2052. The facilities in Kentucky are scheduled for D&D completion even later. These dates should allow the storage of mercury without any significant interference with the D&D program assuming a reasonable amount of planning and coordination occurred. If absolutely necessary, the D&D of the facilities used for elemental mercury storage could be delayed. That however would only occur with a total failure to develop an approved treatment and disposal method for the elemental mercury, in the much more than reasonable time available.

1-2  
Cont.

If the quantity of mercury that can be stored on the first floor is limited for any reason beyond the normal spacing requirements, such as weight limits for the on-grade slab floor, there would be room on the second floor after the piping and equipment were removed. The second floors have supported the very heavy loads of enrichment equipment and piping, so the weight of the mercury should not be an overriding concern with proper spacing, and the storage capacity may even be near the ground floor's capacity. Also, adjacent bays are available so that the potential capacity is not limited to a single bay.

While these enrichment facilities are very prominent (because of their size and notoriety) in their suitability for storing mercury, there are possibly other facilities that could also store mercury, perhaps some would be even more suitable.

1-3

From the Congressional record, including the hearings, it is clear that Congress initially considered a specific DOE building for the purpose of storing elemental mercury. Towards the end of the legislative process, Congress deemed it prudent to change that and allow the Secretary to select the most appropriate building, the best building. It is also clear that the Department overlooked obvious excess facilities that could be suitable, such that the Secretary has not complied with what Congress (and the President) intended the Secretary to do.

The NEPA analysis is not sufficient in that it does not adequately consider the action which Congress intended to happen. The method to find and/or eliminate Department of Energy facilities is highly flawed and totally improper, and probably illegal

c

1-4

PS. The so-called urgency mentioned in the summary on the first page of the webpage is puzzling. DOE is nearly a decade late compared to the dates in the legislation. And yet there is now "Urgency", even though there never seemed to be any urgency for the past decade. Any program or project manager faced with a problem of not having a specific solution available "on time" would look for temporary or interim solutions. The issue of this so-called "urgency" can be met by storing the mercury in commercial storage facilities, or even a government owned TSDF, temporarily until the permanent or long-term solution becomes available.

CC

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July 21, 2022

Mr. David Haught  
Mercury Program Manager  
Office of Environmental Management  
U.S. Department of Energy, EM-4.22  
1000 Independence Avenue SW  
Washington, D.C. 20585

Re: Draft Supplemental Environmental Impact Statement for the Long-Term  
Management and Storage of Elemental Mercury, 87 Fed. Reg. 40830 (July 8,  
2022)

Request for Extension of Commenting Deadline

Dear David:

2-1 I write on behalf of Nevada Gold Mines LLC ("NGM") to request that DOE extend the commenting deadline – announced in the *Federal Register* on July 8, 2022 – for the Draft Supplemental Environmental Impact State for the Long-Term Management and Storage of Elemental Mercury. DOE has prescribed a 45-day period during which it will receive comments on the Draft EIS, ending on August 22, 2022. We are carefully reviewing the Draft EIS, and NGM intends to submit comments, but we are concerned that the allotted time is too short to allow a thorough review and commenting effort. As you know, there are over 300 pages of text, and more than 100 pages of appendices, that need to be reviewed. This does not include the 2011 EIS or the 2013 Supplemental EIS documents, which, while not the focus of this commenting effort, are also not irrelevant to it.

Given our recent and ongoing discussions with DOE, NGM is well aware of DOE's need to work expeditiously to establish the long-term mercury storage facility. NGM also would like to see DOE accomplish this task as soon as possible. We do not want to prolong this process. With these time pressures in mind, we are asking only for an additional 45 days to complete our review and submit comments. That would make the commenting deadline October 6, 2022.

Thank you for your consideration of this request.

Yours sincerely,

Hiliary Wilson  
General Counsel  
Nevada Gold Mines

Cc: Michael McCarthy, General Counsel, Barrick Gold North America



# Environmental Technology Council

1112 16<sup>th</sup> Street NW • Suite 420 • Washington DC 20036 • (202) 783-0870

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Filed by E-Mail: [elementalmercury\\_nepa@em.doe.gov](mailto:elementalmercury_nepa@em.doe.gov)

August 9, 2022

Mrs. Julia Donkin  
NEPA Document Manager  
U.S. Department of Energy, EM-4.22  
1000 Independence Ave., SW  
Washington, DC 20585

RE: DOE Draft SEIS for the Long-Term Management and Storage of Elemental Mercury

Dear Mrs. Donkin;

The Environmental Technology Council (ETC) submits these comments on the Department of Energy's (DOE) "Draft Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury," 87 Fed. Reg. 40830 (July 8, 2022).

## **Statement of Interest**

The ETC is a national trade association that represents the commercial hazardous waste management industry. The ETC membership includes companies that provide technologies and services for source reduction, fuel blending, recycling, treatment, and secure disposal of industrial and hazardous wastes. The ETC companies conduct mercury collection and reclamation operations such as universal waste programs for mercury-containing thermostats; recycled-by-mail programs for fluorescent and HID lamps, ballasts, batteries and other mercury lamps, lights, and thermostats. ETC member firms own and operate commercial facilities such as mercury retort ovens, mercury distillation units, chemical treatment plants, incinerators, fuel blending facilities, secure landfills, and other types of facilities for the proper management and storage of hazardous wastes.

## **Background**

The Mercury Export Ban Act (MEBA) of 2008 (Pub. L. 110-414) and the 2016 Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act (Pub. L. 114-182) amended the Toxic Substances Control Act (TSCA) and the Resource Conservation and

Recovery Act (RCRA) to address among other things, the export and long-term management and storage of elemental mercury. As enacted, MEBA prohibits the sale, distribution, or transfer by Federal agencies to any other Federal agency, any state, or local government agency, or any private individual or entity, of any elemental mercury under the control or jurisdiction of a Federal agency (with limited exceptions). MEBA also amended § 266(c) of TSCA to prohibit the export of elemental mercury from the U.S. (with certain limited exceptions). Additionally, MEBA directs the DOE to designate a facility or facilities for the long-term management and storage of elemental mercury generated in the U.S. Finally, MEBA provides the Secretary of Energy with the authority to establish such terms, conditions, and procedures as are necessary to carry out this long-term management and storage function. However, before such terms, conditions, and procedures can be established, DOE must make a designation determination.

In its Draft Supplemental Environmental Impact Statement (SEIS), DOE is considering five alternative site locations which are:

- Hawthorne Army Depot in Hawthorne, NV,
- Bethlehem Apparatus in Bethlehem, PA,
- Perma-Fix Diversified Scientific Services, Inc., in Kingston, TN,
- Veolia North America in Gum Springs, AR and,
- Clean Harbors (facilities in Pecatonica, IL; Greenbrier, TN; and Tooele, UT).

**ETC Position**

ETC supports the efforts being taken by DOE. The agency’s Draft Supplemental EIS notes that the specific requirements for a DOE mercury storage facility are based on RCRA requirements and will be included in the procurement and contractual documents associated with the designated facility or facilities. As the national trade association representing companies that own and operate RCRA-regulated treatment, storage and disposal facilities, ETC supports DOE’s efforts to ensure the selected facility is RCRA compliant. Such facilities are regulated and inspected by EPA and meet the highest standards in terms of safety and security. For example:

- RCRA regulated TSDFs are required to have proper spill containment features and emergency response procedures,

3-1

3-1  
Cont.

- Fully enclosed weather-protected buildings(s),
- Reinforced concrete floors able to withstand heavy structural loads;
- Ventilated storage and handling areas;
- Fire suppression systems; and
- Security and access controls.

In short, RCRA has resulted in an infrastructure of regulated facilities that are designed and operated for the specific purpose of properly storing and disposing toxic chemical waste. Given that exposure to mercury can damage the nervous system, kidneys, liver and immune system, it is imperative that DOE act quickly to finalize a designated facility and subsequently move forward with establishing terms, conditions, and procedures (*e.g.*, storage fee) that are necessary to carry out the agency's long-term management and storage function. Finally, ETC understands that the agency may be considering lowering the purity level for mercury storage below the current level of 99.5%. If so, what is the agency's rationale for doing so since the mercury will eventually be disposed.

### **Conclusion**

In closing, the ETC would like to thank the agency for the opportunity to submit comments on its Draft Supplemental EIS. Should there be any questions or concerns, please feel free to contact the undersigned via e-mail at: [jwilliams@etc.org](mailto:jwilliams@etc.org) or [dcase@etc.org](mailto:dcase@etc.org).

Sincerely,



James A. Williams, II  
Executive Director



David R. Case  
General Counsel

From: Suzanne Earls <suzanneearls0740@gmail.com>  
Sent: Thursday, August 11, 2022 1:28 PM  
To: ElementalMercury\_NEPA  
Subject: [EXTERNAL] Comment amendment mercury storage

Dear Sir,

Comment this area is still impacted by historical pollution of mercury in watersheds in all Roane county and ORR. For this reason I object to a new storage site along HWY 58.

4-1

Sincerely, Suzanne Earls

\*\*\*\*\*

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\*\*\*\*\*

From: Chris Wieland <c2wieland@comcast.net>  
Sent: Friday, August 19, 2022 8:33 AM  
To: ElementalMercury\_NEPA  
Subject: [EXTERNAL] Comments on the Mercury Storage SEIS

Comments on the Supplement Environmental Impact Statement for Long-Term Storage of Elemental Mercury (DOE/EIS-0423-2SD, June 2022)

1. Congress passed the Mercury Export Ban Act (MEBA) in 2008 to severely limit the export of mercury from the U.S. and to require that the mercury held by the federal government be placed in a single facility for long-term storage. Senator Lamar Alexander objected (Senate Report 110-477, pp. 15-16) to that facility being located on the Oak Ridge Reservation (ORR) for several reasons, including that Oak Ridge and East Tennessee are still dealing with the clean-up of mercury releases from historic operations. As a result, the MEBA specifically states that the mercury storage facility shall not be located on the ORR. Sen. Alexander's reasons are just as valid today as they were in 2008. The original Environmental Impact Statement (EIS; DOE/EIS-0423, 2011) for this project did not include any sites in Tennessee. The Supplemental EIS (DOE/EIS-0423/S2D) currently under public review includes the Perma-Fix/DSSI facility on Route 58 in Kingston, TN and another facility in Greenbrier, TN. While inclusion of these sites obeys the letter of the law, consideration of the Kingston site clearly violates the law's spirit, since it is less than 3.5 miles from the ORR boundary. The Kingston site is within the watersheds already contaminated by Y-12 mercury and Tennessee Valley Authority coal ash, so any new releases would add to the already substantial burden of pollution in our local streams, reservoirs, and groundwater. The risks of environmental release during transportation, transfers, re-packaging, and long-term storage (perhaps for many decades), are simply too great and far out-weigh any benefits from short- and long-term employment or increased tax revenue.

5-1

2. The Perma-fix/DSSI facility received a notice of violation in 2021 for several issues related to the storage and processing of hazardous wastes. While these issues were relatively minor, they are suggestive of failures in management and operation that have the potential to impact mercury storage.

5-2

3. The fate and transport of mercury in the environment is still not well understood. Mercury has a contact angle with minerals that ranges from about 136° to about 158° (see USGS Open-File Report 90-409) and behaves as a non-wetting, self-cohesive substance in the geologic environment. It therefore does not interact physically or chemically with most minerals. It is known to fragment and disseminate through granular media as small spheroids. This makes recovery and/or in situ treatments of released mercury difficult or impossible. This problem is compounded in the low-permeability clay soils prevalent in East Tennessee. Thus, any releases would effectively permanently damage the soil-rock-groundwater system.

5-3

4. Mercury is not, in elemental form, particularly dangerous to human health, except via the inhalation pathway. However, when released to a humid, water-rich environment, such as is present in East Tennessee soils, bedrock, streams, and lakes, mercury is bacterially methylated. Methylmercury is easily metabolized by higher organisms, and concentrates upward in the food chain. For this reason, there are no sites in the humid eastern United States, including particularly Tennessee, that are suitable for a mercury storage facility. To mitigate these risks, only those sites that are in rural, arid areas with no permanent surface water and small local populations should be considered. Such areas also tend to be economically disadvantaged, and the employment offered by the mercury storage facility would likely be welcomed.

5-4

5. The mercury storage facility should be a new, purpose-built facility that is designed with the peculiar physical and chemical characteristics of mercury as part of the design criteria. The Perma-Fix/DSSI facility is an existing building with a curbed storage area that is coated with epoxy, which has good resistance to mercury. However, the floor and curbs may have cracks or other avenues, such as drains, that may allow spilled mercury to exit containment, and for this reason, should not be considered for use. Further, the SEIS indicates that up to 1200 metric tons of mercury may be stored in the existing facility. This may exceed the design loading for that

5-5

floor. The propose CBSU expansion may meet storage criteria, but a design is not provided.

6. Because of the physical and chemical characteristics of mercury, the minimum Resource Conservation and Recovery Act design requirements for hazardous waste storage facilities are not entirely inadequate. Multiple interior and exterior barriers to mercury release should be included in the design. Elemental sulfur combines with elemental mercury to form the stable mineral cinnabar, and sulfur should be incorporated into the storage building's subgrade to act as a reactant to tie up mercury should there be a release.

5-6

7. A national elemental mercury repository is a necessary step in managing mercury and reducing risks to the environment. To achieve this, it must have a robust design, be constructed to tight tolerances and quality control/assurance, and be operated well in order to be effective. The storage facility must be owned by the federal government to ensure long-term control. DOE or other federal agency must retain ultimate responsibility over, and oversight of, any private firm contracted to operate the facility.

5-7

Sincerely,  
Chris Wieland  
105 Wilderness Lane  
Oak Ridge, TN 37830  
865-771-0990

\*\*\*\*\*

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**RESOLUTION**

A RESOLUTION AUTHORIZING THE CITY MANAGER TO TRANSMIT COMMENTS TO THE UNITED STATES DEPARTMENT OF ENERGY ("DOE") ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY.

WHEREAS, DOE announced the availability of the second Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (Draft Mercury Storage SESI-II, DOE/EIS-0423-S2D), for which it sought public comment; and,

WHEREAS, Congress passed The Mercury Export Ban Act of 2008, which specifically prohibits "the Y-12 National Security Complex or any other portion or facility of the Oak Ridge Reservation of the Department of Energy, for the purpose of long-term management and storage of elemental mercury generated within the United States;" and,

WHEREAS, DOE issued the current subject document in June 2022, which proposes a facility in Kingston, Tennessee, as an alternative location for the long-term management and storage of elemental mercury; and,

WHEREAS, for a variety of public health, safety, environmental, and socioeconomic reasons, the City does not support the designation of the facility in Kingston, Tennessee, for short-term or long-term management and storage of elemental mercury; and,

WHEREAS, the City desires to transmit official comments to DOE on this matter.

NOW, THEREFORE, BE RESOLVED BY THE COUNCIL OF THE CITY OF OAK RIDGE, TENNESSEE:

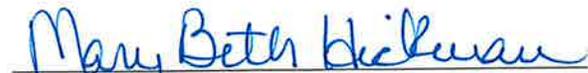
That the City Manager is authorized to transmit the attached official comments from the City of Oak Ridge to the United States Department of Energy ("DOE") on DOE's Draft Supplemental Environmental Impact Statement For Long-Term Management And Storage Of Elemental Mercury (Draft Mercury Storage SESI-II, DOE/EIS-0423-S2D).

This 8th day of August 2022.

APPROVED AS TO FORM AND LEGALITY:

  
\_\_\_\_\_  
Tammy M. Dunn, City Attorney

  
\_\_\_\_\_  
Warren L. Gooch, Mayor

  
\_\_\_\_\_  
Mary Beth Hickman, City Clerk



**City of Oak Ridge, Tennessee Comments on the  
U.S. Department of Energy’s Draft Supplemental Environmental Impact Statement for  
Long-Term Management and Storage of Elemental Mercury  
DOE/EIS-0423-S2D June 2022**

6-1 | **Response:** The City of Oak Ridge (the City) **does not support** the designation of the facility in Kingston, Tennessee for short- term or long-term management and storage of elemental mercury for a variety of public health, safety, environmental and socioeconomic reasons.

**Background**

On July 8, 2022, the U.S. Department of Energy (DOE) announced in the *Federal Register* the availability of the second Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (Draft Mercury Storage SESI-II, DOE/EIS-0423-S2D) for public comment.

DOE issued this Draft Supplemental Environmental Impact Statement (draft SEIS) in June 2022, which includes the addition of the Perma-Fix Diversified Scientific Services, Inc. facility located in Kingston, TN as a proposed alternative location for long-term management and storage of elemental mercury. While DOE no longer has a specific "preferred alternative," the *Federal Register* notice states that DOE does prefer one or more of the listed alternative locations with existing commercial facilities because statutory milestones have now been exceeded, and the agency needs to designate a facility and begin accepting elemental mercury as soon as practicable.

6-2 | Previously, Congress passed The Mercury Export Ban Act of 2008 (Public Law 110-414) that directs DOE to designate a facility (or facilities) for the long-term management and storage of elemental mercury generated within the United States. The law also authorized DOE to assess and collect a fee at the time of mercury delivery to the storage facility. It would cover certain costs of long-term management and storage. Section 5 of the law specifically prohibited "the Y-12 National Security Complex or any other portion or facility of the Oak Ridge Reservation of the Department of Energy (located in the city limits of Oak Ridge), for the purpose of long-term management and storage of elemental mercury generated within the United States."

Since 2011, DOE has prepared several analyses pursuant to the National Environmental

6-2  
Cont.

Policy Act (NEPA), including the subject document. In 2019 DOE chose the licensed Waste Control Specialists facility in Texas as the preferred location for this storage activity. However, DOE withdrew that designation in June 2021 as part of a settlement with two domestic generators of elemental mercury that filed complaints in U.S. District Court. The optimal location of this selection away from the population centers has now been removed and this alternative SEIS is being “rushed” to a conclusion.

**Detailed comments are provided below:**

6-3

1) DOE’s proposed alternatives in the draft SEIS fail to sufficiently account for the impacts to local communities from their siting recommendation. DOE’s draft SEIS appears to be following the outdated 2020 NEPA requirements that permitted federal agencies to base the purpose and need of their proposed actions on the goals of the applicant and the agency’s authority. Based on the May 20, 2022, adoption of revised NEPA regulations, the City of Oak Ridge does not consider the draft SEIS report to fully comply with new requirements to assess the direct and indirect effects, and cumulative impacts of the proposed actions from the transportation and storage of mercury hazardous waste at the Kingston, TN facility.

6-4

2) Because the DOE has not accounted for the impacts a decision to store mercury waste at the Kingston, TN facility will have on the communities of Oak Ridge, Kingston, TN and Roane County, a significant number of impacts must be evaluated. These include the costs associated with providing additional public safety emergency response and mutual aid services among Oak Ridge, Kingston, and Roane County. The DOE appears to be using a “used” building that does not meet adopted 2022 building, fire, and life safety codes for the storage of critical hazardous material. The proposed site is also adjacent to the Michael Dunn Center, a support center for individuals living with disabilities, including physical and occupational therapy services.

6-5

3) The transportation of elemental mercury near residential areas also has not been examined, with the proposed facility being in close proximity to the city limits of Oak Ridge, while fully residing in the city limits of Kingston. The draft SEIS mistakenly states the proposed Kingston facility is 10 miles from Oak Ridge; the accurate distance is approximately 2.4 miles from the Oak Ridge City limits. Cumulative impacts should assess the environmental investigatory data for this area, which clearly demonstrates a nexus between the current and historical U.S. DOE operations at the Oak Ridge Reservation and the environmental damages posed to Oak Ridge, Kingston, Roane, and Anderson counties and to the Lower Watts Bar ecosystem.

6-6

4) Adverse socioeconomic impacts associated with a DOE decision to store mercury waste at the Kingston, TN facility would be difficult to mitigate. The Kingston facility location will not serve as an inducement for people to move to this part of the state. Oak Ridge has documented the negative impact to economic development and population growth from being a “host city” to low-level nuclear waste landfills and a legacy of contamination release to the Lower Watts Bar Watershed. While it may be that waste management protocols at

6-6  
Cont.

the Kingston facility will not result in a mercury release, should such occur, the impact will add to the existing poor condition or represent a “cumulative” impact to the environment which already has a fish consumption advisory in place for the Clinch River, Poplar Creek, and the Lower Watts Bar Reservoir.

6-7

5) The proposed action is premature. According to the draft SEIS, there still is no EPA-approved treatment method for nonradioactive mercury for eventual disposal in the United States; however, US Ecology has petitioned the EPA for a site-specific Determination of Equivalent Treatment for its permitted disposal facility. The EPA has posted a notice on its website that acknowledges its review of US Ecology's request for a site-specific variance for a new Land Disposal Restriction treatment technology that stabilizes elemental mercury for disposal. According to the notice, upon completion of its review, EPA will post a public notice in the Federal Register of its intent to approve or deny the petition and to solicit public comment. If approved, EPA would propose revisions to the regulations. The treatment technology described in US Ecology's variance request could offer a permanent disposal solution for elemental mercury in the United States. The EPA estimates that its draft Notice of Proposed Rulemaking to revise the regulations might be issued by November 2022. Thus, DOE should postpone any decision related to this draft SEIS until a final determination is made by EPA regarding the US Ecology petition.

6-8

6) The regulatory framework appears to be dated and incomplete. According to the draft SEIS, Interim Guidance, was prepared in 2009, is primarily based on laws, regulations, and DOE Orders and Standards, but also includes best management practices and other desired conditions and features. It further states that DOE is “considering updates” to the 2009 Interim Guidance, but does not state what updates are needed. It further states that specific requirements for a DOE mercury storage facility are based on RCRA requirements and will be included in the procurement and contractual documents associated with the designated facility(ies). Similarly, the waste acceptance criteria for the facility designated for long-term management and storage of elemental mercury would be specific to the facility designated and *would be determined by the state regulator*.

6-9

7) S.3.1 on Land Use and Ownership does not explain the financial impacts a proposed leasehold interest by DOE in a commercial facility selected under this draft SEIS would have on the affected local governments (City of Kingston and Roane County) that would otherwise receive property tax from such facility. According to the draft SEIS “if DOE were to designate a commercial facility for the Proposed Action, DOE would obtain an appropriate leasehold interest in that facility to comply with the Mercury Export Ban Act. Recent challenges by private providers of DOE services have questioned their taxable status through governmental ownership. Said claims are unresolved in Tennessee and must be clarified. DOE would ensure that any long-term lease agreement would afford DOE an appropriate level of responsibility and control over the facility.” DOE estimates that a lease agreement for an existing commercial facility could be completed within about six months, but in the case of the proposed Kingston facility, what would the impacts be to city and county real property and personal property taxes currently levied?

6-10 | 8) According to the draft SEIS, the operation of a mercury storage facility would be expected to generate hazardous waste that is commensurate with the amount of mercury stored at the facility. The estimate of hazardous waste generation in the draft SEIS was based on the analysis in the 2011 Mercury Storage EIS, which assumed some degree of repackaging of potential leaking containers. Where would this additional mercury-contaminated waste be disposed? Would DOE ship it to the ORR for disposal, which would violate the terms of MEBA and expand transportation and disposal of out-of-state waste into DOE or other Tennessee landfills?

**The No-Action Alternative is Not Acceptable**

6-11 | 9) According to the US DOE, “more than 20 million pounds of mercury were used at the Y-12 complex during the 1950s and early 1960s to process lithium. Approximately 700,000 pounds of mercury are suspected to have been released in the buildings and surrounding environment.”<sup>1</sup> *Former U.S. Senator Lamar Alexander strongly opposed the long-term storage of elemental mercury in Oak Ridge and was instrumental in securing the language in the Mercury Export Ban Act of 2008 prohibiting Y-12 from serving as a long-term storage site.*

6-12 | 10) DOE has correctly asserted in the Draft EIS that the Department is “required by CEQ NEPA regulations (40 CFR Parts 1500–1508) and the DOE NEPA implementing procedures (10 CFR Part 1021), the Mercury Storage SEIS-II to include a No-Action Alternative as a basis for comparison to the Proposed Action. Under the No-Action Alternative evaluated in the SEIS-II, DOE would not designate a facility (or facilities) for the long-term management and storage of mercury. Elemental mercury would continue to be generated from other sources, primarily the gold-mining industry and, to a lesser extent, waste reclamation and recycling facilities.”<sup>2</sup>

6-13 | 11) The City of Oak Ridge does not support a No-Action Alternative for the storage of mercury waste at current sites. This alternative would result in some or all the 1,206 metric tons of mercury that are currently stored at the Y-12 National Security Complex remaining. In addition, the 2021 US DOE Record of Decision - Onsite Disposal Alternative - Environmental Management Disposal Facility - Site 7c - Central Bear Creek Valley, stated that “all recovered elemental mercury will not be disposed in any Oak Ridge landfill and will eventually be shipped off-site, subject to availability of a disposition pathway. All mercury hazardous waste as determined under RCRA (waste code D009, as determined by the method specified in 40 CFR 261.24.) will be shipped off-site for treatment and disposal. The wastewater discharge limits for mercury will be 51 nanograms/liter (ng/L) which is also parts per trillion (ppt) as a monthly average concentration (numeric recreational water quality criteria) and 1400 ng/L (ppt) maximum daily limit (numeric fish and aquatic life water quality criteria).”<sup>3</sup>

6-14

12) The City of Oak Ridge is also concerned that mercury recovered from the soon to be completed Mercury Treatment Facility at Y-12 will add to the existing stockpile of mercury stored here. The Oak Ridge Office of Environmental Management (OREM) is constructing a mercury water treatment facility at the Y-12 site. The treatment facility, which is scheduled to be operational in 2025, is a key component of the mercury remediation strategy at Y-12 and will help reduce mercury releases into the Upper East Fork Poplar Creek. It will also serve as an important control measure during cleanup of the site.

While the city of Oak Ridge recognizes that the Mercury Treatment Facility at Y-12 will reduce mercury released from the West End Mercury Area storm sewer to the Upper East Fork Poplar Creek surface water, it could also result in increasing the stockpile of mercury stored at Y-12.

### **Conclusion**

6-15

Based on this preliminary analysis of direct, indirect effect and cumulative impact, the City of Oak Ridge, TN strongly requests and advises that DOE remove the Kingston, TN site from further consideration for the storage of mercury waste. We further recommend that DOE not accept the no action alternative as such a decision will adversely impact the City's community goal of reducing mercury storage in the city and region, thus avoiding likely continual mercury release to the environment.

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<sup>1</sup> Mercury Treatment Facility at the Y-12 National Security Complex  
<file:///C:/Users/17033/OneDrive/New%20Business/Oak%20Ridge,%20TN/Mercury%20Long-Term%20Storage%20EIS/mercury-treatment-facility.pdf>

<sup>2</sup> Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S2D) (Mercury Storage SEIS-II). DOE/EIS-0423-S2D. June 2022  
<file:///C:/Users/17033/OneDrive/New%20Business/Oak%20Ridge,%20TN/Mercury%20Long-Term%20Storage%20EIS/draft-eis-0423-s2-elemental-mercury-summary-2022-06.pdf>

<sup>3</sup> Record of Decision for Comprehensive Environmental Response, Compensation, and Liability Act Oak Ridge Reservation Waste Disposal at the Environmental Management Disposal Facility, Oak Ridge, Tennessee, DOE/OR/01-2794&D1. 6/22/2021



# Environmental Council of the States

1250 H Street NW, Suite 850 | Washington, DC 20005  
(202) 266-4920 | www.ecos.org

August 22, 2022

Mr. David Haught  
Mercury Program Manager  
Office of Environmental Management  
U.S. Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

RE: Draft Mercury Storage SEIS-II, DOE/EIS-0423-S2D

Dear Mr. Haught:

The Environmental Council of the States (ECOS) thanks you for the opportunity to provide input on the U.S. Department of Energy’s (DOE) Draft Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury (Draft Mercury Storage SEIS-II). ECOS is the national, nonpartisan association of state and territorial environmental agency leaders that works to improve the capability of state environmental agencies and their leaders to protect and improve human health and the environment.

7-1

ECOS asks that you engage with the states, especially the states where you are considering siting a mercury repository, as you continue your work to implement the long-term mercury storage required under MEBA. States have dealt with mercury issues for decades. Through ECOS, states have worked with the federal government for many years to address sources of mercury pollution, mercury-added products, the management of excess commodity mercury in the U.S., and international mercury reduction efforts. For over 20 years, ECOS policy resolutions have urged the federal government to develop a mercury repository and to include any state where a repository may be sited in the development of the storage plan. Since early 2009, ECOS policies have requested that DOE involve states in the implementation of the Mercury Export Ban Act (MEBA).

7-2

Additionally, as noted in the *Federal Register* Notice of Availability of this SEIS, DOE has missed the January 1, 2019 deadline for opening a DOE facility for the long-term storage and management of elemental mercury, so needs to work quickly to identify and open a facility. ECOS urges DOE to expedite siting and operation of the MEBA mercury storage facility while fully consulting with all state and local governments that are potential hosts to the repository.

7-3

Offering states an opportunity for early, meaningful, and ongoing engagement in your siting process for and operation of the long-term mercury storage facility is critical to your ability to expedite the process. DOE will need state permitting approval as MEBA requires “elemental mercury managed and stored...at a designated facility shall be subject to the requirements of the Solid Waste Disposal Act, including requirements of subtitle C of that Act.” (Section 5(d)1)

**Myra Reece**  
South Carolina Department of  
Health and Environmental Control  
ECOS President

**Chuck Carr Brown**  
Louisiana Department of  
Environmental Quality  
ECOS Vice President

**Liesl Eichler Clark**  
Michigan Department of  
Environment, Great Lakes, and Energy  
ECOS Secretary-Treasurer

**Todd Parfitt**  
Wyoming Department of  
Environmental Quality  
ECOS Past President

**Ben Grumbles**  
ECOS Executive Director

7-3  
Cont.

Authority to implement subtitle C of the Solid Waste Disposal Act has been delegated by the U.S. Environmental Protection Agency to 48 of 50 states, including all of the states hosting sites being considered under this SEIS.

Thank you again for the opportunity to comment on the Draft Mercury Storage SEIS-II. We look forward to working with you to ensure meaningful state engagement in the siting and operation of a long-term mercury repository.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Grumbles". The signature is written in a cursive, flowing style.

Ben Grumbles  
ECOS Executive Director



*Submitted via E-Mail*  
*[ElementalMercury\_NEPA@em.doe.gov]*

September 2, 2022

Ms. Julia Donkin  
NEPA Document Manager  
Officer of Environmental Management  
U.S. Department of Energy (EM-4.22)  
1000 Independence Avenue SW  
Washington, D.C. 20585  
ElementalMercury\_NEPA@em.doe.gov

**RE: Comments of Coeur Mining, Inc. in Response to the Department of Energy Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S2D)**

Dear Ms. Donkin,

Coeur Mining, Inc. and its subsidiary, Coeur Rochester, Inc. (together “Coeur”), submit the following comments in response to the Department of Energy’s (“DOE”) Federal Register Notice, issued July 8, 2022, announcing the availability of, and inviting public comment on, the second Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S2D) (“Draft SEIS-II”). *See* 87 Fed. Reg. 40,830. Coeur appreciates the opportunity to submit these written comments and reserves the right to submit additional comments in the future regarding DOE’s development of a program for the long-term management and storage of elemental mercury.

## **I. Introduction**

Coeur Mining, Inc. is a U.S.-based, well-diversified, growing precious metals producer with four wholly-owned operations: the Palmarejo gold-silver complex in Mexico; the Rochester silver-gold mine in Nevada; the Kensington gold mine in Alaska; and the Wharf gold mine in South Dakota. In addition, the Company wholly-owns the Silvertip silver-zinc-lead development project in British Columbia and has interests in several precious metals exploration projects throughout North America. Coeur’s headquarters are located in Chicago, Illinois.

As DOE is aware, Coeur is keenly interested in DOE’s development of a program for providing the long-term management and storage of elemental mercury under the Mercury Export Ban Act (“MEBA”) because Coeur Rochester, Inc. is located in an area of Nevada that contains naturally-occurring mercury as part of the silver-gold matrix. Coeur is the second-largest mining company producer of elemental mercury in Nevada and will be directly affected by DOE’s identification of

a MEBA facility for the long-term management and storage of elemental mercury. Starting in 2013, Coeur contracted with a properly permitted treatment, storage, and disposal facility in Alabama for interim storage pending the availability of the MEBA facility. Coeur currently has 56 metric tons of mercury stored at that facility. On October 15, 2020, Coeur notified DOE's Secretary of its intention to store elemental mercury onsite at its Rochester mine facility. Since then, Coeur has utilized its onsite mercury storage facility to store all incidentally generated elemental mercury per the 2016 Frank R. Lautenberg Chemical Safety Act for the 21st Century and DOE's Guidance for Short-Term Storage of Elemental Mercury by Ore Processors (May 2019). To date, Coeur has accumulated 37 metric tons of mercury at its onsite interim storage facility. Coeur will continue to accumulate mercury at its interim storage facility until it is obligated to deliver its accumulated mercury to the MEBA facility.

Coeur has actively participated in DOE's efforts to develop a program for providing the long-term management and storage of elemental mercury. Coeur submitted public comments in response to DOE's proposed rule entitled "Elemental Mercury Storage Fees," published on October 4, 2019, 84 Fed. Reg. 53,066. In December 2019, DOE issued a Final Rule establishing a fee for the management and storage of elemental mercury and a Record of Decision designating the Waste Control Specialists, LLC ("WCS") site in west Texas as the designated MEBA facility. *See* 84 Fed. Reg. 70,402 (Dec. 23, 2019) ("Fee Rule"); 84 Fed. Reg. 66,890 (December 6, 2019) ("ROD"). Coeur Rochester, Inc. subsequently filed a complaint in the United States District Court for the District of Columbia challenging, among other things, the validity of the Fee Rule and the ROD. *See Coeur Rochester, Inc. v. Brouillette et al.*, Case No. 1:19-cv-03860-RJL (D.D.C.).<sup>1</sup> In those proceedings, Coeur Rochester, Inc. demonstrated that DOE's decisions to issue the Fee Rule and ROD were arbitrary and capricious and violated fundamental procedural requirements under the Administrative Procedures Act ("APA"). DOE eventually acknowledged that it made "errors, omissions, and unclear statements," and on April 25, 2021, following the District Court's grant of DOE's motion to vacate the Fee Rule, and following DOE's withdrawal of the designation of WCS as the MEBA facility, the District Court signed Coeur and DOE's joint stipulation to dismiss Coeur's lawsuit.

On July 8, 2022, DOE issued a Federal Register Notice announcing the availability of the second Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S2D). *See* 87 Fed. Reg. 40830. The Draft SEIS-II evaluates the potential environmental impacts of managing and storing an estimated 7,000 metric tons of elemental mercury at one or more existing facilities across the country. Coeur appreciates the opportunity to provide the following comments on the Draft SEIS-II.

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<sup>1</sup> DOE's 2019 Fee Rule and ROD was also challenged by Nevada Gold Mines LLC. *See Nevada Gold Mines LLC v. Brouillette et al.*, Case No. 1:20-cv-00141-RJL (D.D.C.).

### III. Comments

#### a. DOE Properly Does Not Identify a Preferred Alternative Location for the Management and Storage of Elemental Mercury

8-1

Coeur commends DOE for not identifying a single preferred alternative location for the MEBA facility in the Draft SEIS-II. As DOE is aware, MEBA section 5 requires DOE to designate a facility for the management and storage of elemental mercury. In fulfilling this mandate, DOE must consider all reasonable alternative locations for the management and storage of elemental mercury. DOE is correct not to repeat its past errors by prematurely identifying a single preferred alternative location in the Draft SEIS-II. In 2019, DOE designated the WCS site as the MEBA facility, after conducting a sole-source procurement and after identifying that site as the “preferred alternative” in the Department’s supporting environmental impact statement. *See* 84 Fed. Reg. at 66,892. DOE’s 2019 designation of the WCS facility explained some reasons why DOE chose not to site its MEBA facility at various other federal facilities, but DOE did not mention or appear to consider that there were (and are) other private facilities beside WCS that could be viable for designation. As Coeur demonstrated in *Coeur Rochester, Inc. v. Brouillette et al.*, DOE’s designation of the WCS site without considering all other reasonable alternative locations was arbitrary and capricious.

#### b. DOE Must Consider All Potential Alternative Locations for Management and Storage of Elemental Mercury, Not Just Existing Facilities

8-2

Even though the Draft SEIS-II does not identify a single preferred alternative location, the Draft SEIS-II, unfortunately, remains fatally flawed because it arbitrarily and capriciously considers only existing facilities and ignores potential alternative locations that would require new construction. DOE expressly limits its “range of reasonable alternatives” to only “existing facilities that could be designated with only minor modifications to meet the permitting requirements for mercury storage.” *See* Draft SEIS-II at 2-7; *see also* Draft SEIS-II (“DOE’s Preferred Alternative is to designate one or more of the existing commercial facilities evaluated in this Draft SEIS-II”).

No provision of MEBA supports DOE’s decision to consider only existing facilities for the long-term management and storage of elemental mercury. DOE must consider all reasonable alternative locations, regardless of whether those alternative locations have existing facilities or not. *See* 40 C.F.R. § 1502.14 (requiring an EIS or SEIS to consider “all reasonable alternatives”). DOE’s approach in the Draft SEIS-II is arbitrary and capricious because it could result in the Department ignoring, without justification, reasonable alternatives that might otherwise be the most desirable, cost effective, and environmentally protective. *See Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46-48 (1983) (agency action was arbitrary and capricious where agency “did not even consider” a reasonable alternative made known to it and also “failed to articulate a basis” for its action). DOE’s focus on existing facilities also ignores, without justification, several locations that DOE itself previously considered as reasonable alternatives for the management and storage of elemental mercury. Both the 2011 Mercury Storage EIS and 2013 Mercury Storage SEIS considered both existing facilities and new facilities that would require construction. DOE fails to adequately explain why new facilities should no longer be considered.

8-2  
(cont)

The Draft SEIS-II's statement of purpose and need is inconsistent with MEBA and does not justify DOE's sole focus on existing facilities. The Draft SEIS-II wrongly states that "[b]ecause statutory milestone dates have now passed, DOE needs to designate a facility and begin accepting elemental mercury as soon as practicable." *See* Draft SEIS-II at 1-3. The Draft SEIS-II then states that only existing facilities meet this alleged "schedule urgency." *Id.* at 2-32. But there is no requirement under MEBA that DOE designate a facility "as soon as practicable." MEBA imposes certain burdens on DOE if a long-term management and storage facility is not operational by certain statutory deadlines.<sup>2</sup> Those statutory deadlines have already expired, however, and the resulting statutory burdens have already been imposed on DOE. There is no additional requirement under MEBA that DOE designate a facility as "soon as practicable," after expiration of the statutory deadlines. DOE's statement of purpose and need is inconsistent with the statute and does not justify DOE's decision to restrict the range of reasonable alternatives considered in the Draft SEIS-II to only existing commercial facilities.

To the extent DOE feels "urgency" to designate a MEBA facility, that urgency results from DOE's own delays and the costs and burdens that DOE bears as a result, neither of which are an appropriate basis to ignore alternative locations that would require new construction. DOE cannot use its self-imposed "schedule urgency" to abbreviate its review and selection of alternatives. DOE should revise the Draft SEIS-II to consider all reasonable alternative locations for the long-term management and storage of elemental mercury, even if those locations require new construction.

### **c. DOE Fails to Adequately Consider the Hawthorne Army Deport**

8-3

DOE fails to adequately consider the Hawthorne Army Deport ("HAWD") as an alternative location for the long-term management and storage of elemental mercury. HAWD has long been identified as the lowest-cost alternative for the management and storage of elemental mercury. Despite this fact, in the Draft SEIS-II, DOE now discredits this alternative because it will allegedly not meet DOE's desired timing. As discussed above, there is no requirement in MEBA for DOE to designate a facility as soon as practicable, and DOE's preference for facilities that can become operational as soon as possible could arbitrarily and capriciously cause the Department to eliminate the HAWD alternative location.

Furthermore, DOE overestimates the time required to complete the permitting and other activities necessary prior to the acceptance of mercury at HAWD. The Draft SEIS-II states that it will take "between three and five years" to complete a lease agreement with the U.S. Department of Defense ("DoD"), design the required facility modifications, obtain the required permits, and complete the required consultation with the Nevada State Historic Preservation Officer. *See* Draft SEIS-II at 4-31. Yet, DOE provides no justification for these assumptions. DOE separately estimates that it

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<sup>2</sup> MEBA established January 1, 2019, as the date by which a MEBA facility for the long-term management and storage of elemental mercury was required to be operational. 42 U.S.C. § 6939f(a)(2). If the DOE facility was not operation by that date, which it was not, MEBA requires that DOE adjust fees for generators temporarily accumulating elemental mercury. 42 U.S.C. § 6939f(b)(1)(B)(iv). If the DOE facility was not operational by January 1, 2020, which it was not, MEBA requires DOE to: (1) immediately accept the conveyance of title to all elemental mercury that has accumulated on site prior to January 1, 2020; (2) pay any applicable Federal permitting costs; and (3) store, or pay the cost of storage of, until the time at which a facility is operational, accumulated mercury to which the Secretary has title in a facility that has been issued a permit. 42 U.S.C. § 6939f(b)(1)(C).

8-3  
(cont)

will take 18 months to complete a lease agreement with DoD, and 12 months to receive the necessary permits from the Nevada Division of Environmental Protection (“NDEP”). Both estimates appear inflated and are not supported by any specific justification. Even if these time estimates were accurate, the actions can be conducted concurrently, resulting in an 18-month timeframe, rather than DOE’s posited “three to five years.”

**d. DOE Must Designate a Facility That is Truly Controlled by DOE**

8-4

MEBA requires DOE to designate a facility “of the Department of Energy” for long-term management and storage. Over the past decade, DOE has consistently interpreted that phrase to permit the use of a leased facility so long as DOE has the same degree of control over the facility that it would over a property it owned. In the Draft SEIS-II, DOE once again “construes the term facility of DOE to include a facility leased from a commercial entity or another Federal agency, over which DOE provides an appropriate level of oversight and guidance.” *See* Draft SEIS-II at 1-2. However, in the prior WCS contract, DOE yielded all control over the operations at the facility. Whatever facility DOE designates as the MEBA facility this time, DOE must adhere to the principle that it needs to have control of a facility for it to qualify as a facility of the Department of Energy. At a minimum, DOE must be able to choose what persons operate, and receive and manage mercury at the facility or portion of the facility designated as the MEBA facility.

**e. DOE Should Reevaluate the Purity Standard Required for Elemental Mercury Stored at the Designated Facility**

8-5

DOE should also reevaluate its elemental mercury storage acceptance purity standard. Pursuant to DOE’s 2009 guidance, generators are required to have their elemental mercury refined to 99.5% purity before it can be shipped to DOE for storage.<sup>3</sup> The rationale for the standard is that impurities may have a long-term corrosive effect on storage containers. Coeur previously sent its mercury to a Waste Management facility in Union Grove, Wisconsin to be refined to meet DOE’s 99.5% purity standard. The Union Grove facility, however, has closed and Coeur and other stakeholders are concerned there is not sufficient industrial capacity to allow generators to have their elemental mercury refined to meet DOE’s 99.5% purity standard. Furthermore, to the extent the standard was intended to reduce the risk of corrosion to storage containers for elemental mercury stored indefinitely, a reduced purity standard may be appropriate and safe in light of the finite duration for storage being proposed by DOE.

**f. DOE Must Consider Impacts From the Transportation of Mercury, Including Transportation from Ore Processors to RCRA-Permitted Treatment Facilities Necessary to Ensure Mercury Meets Waste Acceptance Criteria Prior to Long-Term Storage**

8-6

Coeur supports the Draft SEIS’s consideration of all mercury transportation-related impacts. The Draft SEIS-II properly analyzes impacts from transportation from source locations to the designated storage facility or facilities and “the potential additional transportation for shipment of mercury from ore processors to a RCRA-permitted treatment facility to ensure that the mercury

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<sup>3</sup> *See* U.S. Dep’t of Energy Office of Env’tl Mgmt., “U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury,” p.1-5 (Nov. 13, 2009).

8-6  
(cont)

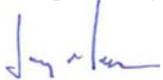
meets the waste acceptance criteria prior to shipment to the DOE-designated storage facility(ies).” See Draft SEIS-II at 2-4. Furthermore, as discussed above, DOE could decrease transportation related impacts by reevaluating its elemental mercury storage acceptance purity standard. If a reduced purity standard were adopted, ore processors may not have to transport mercury to treatment facilities prior to transporting that mercury to the designated long-term management and storage facility.

#### **IV. Conclusion**

Coeur appreciates the opportunity to provide these Comments regarding DOE’s Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S2D). As noted above, Coeur has a keen interest in DOE’s development of a program for the long-term management and storage of elemental mercury.

Thank you again for the opportunity to participate in this important process. Please do not hesitate to contact me if you have questions about Coeur’s comments.

Respectfully Submitted,



Jay Gear  
Vice President, Environment & Permitting  
Coeur Mining, Inc.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 6  
1201 ELM STREET, SUITE 500  
DALLAS, TEXAS 75270-2102

September 2, 2022

Mr. William Ostrum  
NEPA Compliance Officer  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, D.C. 20585-0103

Re: Long-term Management and Storage of Elementary Mercury Second Supplemental Draft  
Environmental Impact Statement

Dear Mr. Ostrum:

Pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500 – 1508), and our NEPA review authority under Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the revision of the Long-term Management and Storage of Elementary Mercury Second Supplemental Draft Environmental Impact Statement (EIS) (CEQ No. 20220092).

The Department of Energy (DOE) proposes to store up to 7,000 metric tons (7,700 tons) of elemental mercury in an existing facility or facilities operating in accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA); Section 5(d) of the Mercury Export Ban Act (MEBA); Chemical Safety Act of 2016; Toxic Substance Control Act; and other state-specific permitting requirements. The EIS analyzes the potential environmental, human health, and socioeconomic impacts of elemental mercury storage at eight potential existing facilities: Hawthorne Army Depot near Hawthorne, Nevada; Waste Control Specialists LLC near Andrews, Texas; Bethlehem Apparatus in Bethlehem, Pennsylvania; Perma-Fix Environmental Services in Kingston, Tennessee; Veolia Environmental Services in Gum Springs, Arkansas; and Clean Harbors Environmental Services with three potential locations in Tooele, Utah; Greenbrier, Tennessee; and Pecatonica, Illinois. The DOE's Preferred Alternative is to designate one or more of the existing commercial facilities evaluated in the EIS.

Additionally, the EIS evaluates the duration, estimated mercury inventory, transportation of mercury to the DOE-designated storage facility, and features of a mercury storage facility. The DOE plans to evaluate and undertake additional treatment and disposal under an additional NEPA review, as appropriate. For your consideration, the enclosed recommendations are provided and focus on improving the clarity of the EIS.

The EPA looks forward to the receipt of the electronic version of the Final EIS and any connected NEPA action for additional treatment and disposal of elementary mercury. Additionally, we are available to meet. If there are questions, please contact Kimeka Price of my staff at (214) 665-7438 or by e-mail at [price.kimeka@epa.gov](mailto:price.kimeka@epa.gov).

Sincerely,

**ROBERT  
HOUSTON**  Digitally signed by  
ROBERT HOUSTON  
Date: 2022.09.02  
13:38:13 -05'00'

Robert Houston  
Staff Director  
Office of Communities, Tribes and  
Environmental Assessment

Enclosure

cc: Mr. Stepan Nevshehirlian, EPA Region 3 (PA)  
Ms. Ntale Kajumba, EPA Region 4 (TN)  
Ms. Jennifer Tyler, EPA Region 5 (IL)  
Ms. Melissa McCoy, EPA Region 8 (UT)  
Ms. Jean Prijatel, EPA Region 9 (NV)

**Detailed Recommendations for Consideration  
for  
Long-term Management and Storage of Elementary Mercury  
Second Supplemental Draft Environmental Impact Statement**

**General Comments**

- 9-1 | The EPA recommends the DOE identifies site-specific adaptation or resiliency measures to address potential increasing frequency and intensity of severe weather given current climate models. We recommend the Final EIS addresses how the proposed facilities will incorporate measures to better harden structures against such events, reducing the risk of a facility spill.
- 9-2 | If recycling is part of the management of the elementary mercury, the EPA recommends the DOE incorporates an in-depth discussion of recycling for each proposed facility, including state and federal regulatory requirements. Additionally, for instances where elementary mercury becomes a constituent in air emissions, wastewater and stormwater discharges, and other environmental media, the EPA recommends the DOE evaluates if other permits or permit modifications are necessary at each proposed facility and ensure compliance with all applicable federal and state requirements.
- 9-3 | We recommend the DOE incorporate a discussion of the Clean Air Act Section 112(r) and the Emergency Planning and Community Right to Know Act (EPCRA) Section 303, 311, and 312, as applicable. See <https://www.epa.gov/epcra/what-epcra> and <https://www.epa.gov/rmp/fact-sheet-clean-air-act-section-112r-accidental-release-prevention-risk-management-plan-rule>.
- 9-4 | The EIS considers risks to facilities in the 100-yr floodplain. Under the climate change section, the EIS does not identify any potential adverse risks to facilities due to climate-related extreme weather events. The EPA recommends the DOE evaluates potential risks to facilities in the 500-yr floodplain and their surrounding communities and natural resources should extreme flooding occur. Additionally, we recommend evaluating other catastrophic weather events (i.e., tornadoes) that could compromise containment or destroy a storage facility or facilities. Characterizing the impacts of such events to human health and the environment would provide an assessment of facilities' capability to safely store elemental mercury.
- 9-5 | The EIS identifies that several proposed facilities are in the vicinity of communities, who may have environmental justice concerns. Also, the EIS indicates that risk to these communities is minimal even under unlikely scenarios. We recommend that the EIS provides an impact evaluation of proposed facilities with nearby businesses and communities for catastrophic failure. For instance, an evaluation of catastrophic failure of containment or facility destruction, however unlikely, should be fully evaluated to disclose the possible worst-case scenario to populations surrounding the facility or facilities. This information will be valuable for the decision-maker(s) and the public to understand the potential impacts to surrounding communities from the proposed facilities.
- 9-6 | The EPA recommends the DOE incorporates a detailed discussion on potential incompatibility of elementary mercury with other RCRA wastes that may share storage or containment. External corrosion of mercury containers due to humid conditions, condensation, gases, or spills from other wastes could accelerate failure of the mercury containers.

9-7

Some of the fish consumption rates selected for evaluating the release of mercury followed by deposition, bioaccumulation in fish, and consumption of fish do not match the intended scenario of protecting people who fish locally and eat some of the fish they catch. The National Average fish consumption rate is taken from a per capita study including respondents that consume very little or no fish. This has the effect of artificially lowering the fish consumption rate of the population you are intending to protect. Fish consumption rates should be targeted to people who fish locally and eat some of the fish they catch. The 1997 and 2011 editions of the Exposure Factors Handbook both derive these fish consumption rates from the 1987-1988 USDA National Food Consumption Survey (NFCS)<sup>1</sup>, the only one of seven national household food consumption surveys since the 1930s to address *Consumer Only Intake of Home Caught Fish*. EPA's 2005 Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities (HHRAP)<sup>2</sup> used mean-value consumption rates from this survey of 0.0875 kg/day for an adult fisher and 0.0132 kg/day for a child fisher. The HHRAP also explains that these values are not interpreted as strictly subsistence fishers since it includes respondents who reported any amount of locally-caught fish consumption, not just the higher amounts associated with "fishers who rely on noncommercially caught fish and shellfish as a major source of protein in their diets" – a definition of subsistence fishers provided by EPA's 2000 Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories<sup>3</sup>. We recommend the DOE incorporate a detailed discussion of fish consumption for local fishers at the rates recommended by the 2005 HHRAP guidance.

9-8

Regarding the description on page 4-19 and the reference in the 2011 Mercury Storage EIS in Section 4.2.9.1.5, the fate and transport calculations for mercury releases transition from deposition directly to fish concentrations without a discussion of run-off, sediment, and surface water equilibrium; conversion to freely dissolved water concentrations; and the use of bioaccumulation factors. The EPA recommends the DOE incorporate an in-depth discussion of fate and transport calculations for mercury releases that result in bioaccumulation in fish followed by ingestion by people who fish.

9-9

We recommend the DOE incorporate an in-depth discussion of the RCRA permitting process, including:

- If the authorized states do not grant the permit modifications necessary for the proposed action;
- The impact of MEBA on RCRA and the States' authorized RCRA Program;
- Storage and other requirements under the States' authorized RCRA Program for each proposed facility;
- Clarification of the DOE becoming a leaseholder with an "appropriate level of responsibility and control over the facility" that will result in the DOE becoming an *owner* or *operator* of the facility under RCRA; and

<sup>1</sup> *Food Consumption and Dietary Levels of Households in the United States, 1987-88, Nationwide Food Consumption Survey 1987-88*, NFCS Rep. No. 87-H-1, Agricultural Research Service, 1994.

<sup>2</sup> *Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities*, Office of Solid Waste and Emergency Response, EPA530-R-05-006, September 2005.

<sup>3</sup> *Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories, Volume 2, Risk Assessment and Fish Consumption Limits, Third Edition*, EPA 823-B-00-008, Office of Water, Washington D.C., November 2000

- 9-9 (cont) |
  - Prevention of releases, including real-time and periodic monitoring, response actions, and inspections for each facility.

9-10 | In review of the 2009 DOE Guidance for Storage<sup>4</sup>, the EPA recommends the DOE adapts the Workspace Air Monitoring Standard in Section 5.3 to co-function as leak detection, possibly on a continuous basis. Handheld vapor analyzers or other enhanced monitoring could be used to identify leaking containers or spills in waste handling, shipping, and receiving areas, including in secondary containment devices, to detect any releases in real-time. Additionally, we recommend the DOE incorporates an in-depth discussion of the segregation of elementary mercury from other wastes which could pose risks to the exterior of the mercury containers.

**Transportation Safety**

9-11 | The EPA recommends the DOE evaluates and discloses the relative risk of a highway accident of a transported load of elemental mercury between the sources of elemental mercury and the existing long-term management and storage facility or facilities under consideration. In addition to presenting this highway accident risk comparison between potential storage facilities, the DOE may also want to compare these alternatives with the average annual highway accident rate for commercial trucks on the nation's highways to also offer a baseline comparison of public road risk.

**Selection of Facility or Facilities**

9-12 | The EIS does not explain the criteria the DOE would use to decide whether to select between one or more facilities for long-term management and storage of elemental mercury. It is also unclear if the remand of the Fee Rule ultimately affects the selection of a facility or facilities. We recommend disclose of the criteria the DOE will use to determine if a single or multiple facilities would be selected.

**Environmental Justice and Impacted Communities**

9-13 | The EPA recommends the DOE incorporates a discussion and map of minority and low-income populations in proximity to each proposed action. We recommend utilization of the Environmental Justice Mapping and Screening Tool, EJSCREEN, which has environmental and demographic data and is available at: <https://www.epa.gov/ejscreen>. Additionally, the NEPAAssist Tool is available for use in the environmental review process and can be located at: <https://www.epa.gov/nepa/nepassist>.

9-14 | The EPA recommends the DOE discusses a cumulative effects analysis (e.g., land ownership and values; air and water quality and resources; subsistence fishing; socioeconomic; and community resiliency) the proposed action will have on minority and low-income populations in the surrounding area of each proposed facility and the region of influence (ROI). Additionally, we recommend the DOE coordinates with state and local governments for any foreseeable environmental trends or planned actions (e.g., transportation infrastructure and economic development) in the surrounding areas and the ROI.

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<sup>4</sup> U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury, Oak Ridge National Laboratory Managed by UT-Battelle, LLC, for the U.S. Department of Energy under contract DE-AC05-00OR22725, U.S. Department of Energy, Office of Environmental Management, Washington, D.C., November 13, 2009

9-15 | Where a permit modification is required to store elemental mercury at the proposed facilities, the EPA recommends the DOE ensures that minority and low-income populations are provided an opportunity to also engage early in the permitting process to have their comments or concerns addressed prior to issuance of permit(s). We recommend the DOE coordinates with applicable state and local governments regarding any concerns the communities have with the proposed facilities.

9-16 | We recommend the DOE incorporates a discussion that address emergency procedures and a contingency plan to ensure safety measures are put in place when elemental mercury is being transported through environmental justice and impacted communities, unforeseeable natural disasters occur (e.g., flooding and tornadoes), and other events.

9-17 | The proposed facilities are existing commercial facilities with containment systems and current operations. The EPA recommends the DOE discusses the available capacity of existing containment systems and the proposed additional capacity needed for long-term management and storage of elemental mercury, to ensure adequate containment and prevention of a release into the environment and exposure pathways to communities due to natural disasters, climate change, operations, and other events. Further, we recommend the DOE discusses the proposed facilities' operations, compliance status, citizen complaints, and other aspects, as appropriate, to ensure minority and low-income populations and communities are not exposed to hazards from each proposed facility currently and the proposed action.

**Consultation with Tribal Governments**

9-18 | The EPA recommends the DOE ensures compliance with Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*, as applicable.



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
NASHVILLE, TENNESSEE 37243-0435

DAVID W. SALYERS, P.E.  
COMMISSIONER

BILL LEE  
GOVERNOR

September 6, 2022

**Via Electronic Mail to [ElementalMercury\\_NEPA@em.doe.gov](mailto:ElementalMercury_NEPA@em.doe.gov)**

Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury Comment.

Ms. Julia Donkin

NEPA Document Manager

Office of Environmental Management, U.S. Department of Energy, EM-4.22

1000 Independence Avenue SW, Washington, DC 20585.

Ms. Donkin:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the United States Department of Energy (DOE) *Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury* (Draft EIS). As required by the *Mercury Export Ban Act of 2008* and the 2016 *Frank R. Lautenberg Chemical Safety for the 21st Century Act* (all together referred to as MEBA), DOE proposes to identify an existing facility or facilities for the long-term management and storage of elemental mercury generated within the United States. DOE is analyzing the storage of up to 7,700 metric tons of elemental mercury in an existing facility or facilities operated in accordance with the *Solid Waste Disposal Act*, as amended by the *Resource Conservation and Recovery Act*.

This Draft EIS analyzes the potential environmental, human health, and socioeconomic impacts of elemental mercury storage at existing facilities in eight candidate locations: Hawthorne Army Depot near Hawthorne, Nevada; Waste Control Specialists LLC, near Andrews, Texas; Bethlehem Apparatus in Bethlehem, Pennsylvania; Perma-Fix Environmental Services in Kingston, Tennessee; Veolia Environmental Services in Gum Springs, Arkansas; and Clean Harbors Environmental Services, with three potential locations in Tooele, Utah; Greenbrier, Tennessee; and Pecatonica, Illinois. DOE's Preferred Alternative is to designate one or more of the existing commercial facilities evaluated in this Draft EIS.

Two of the alternatives considered involve long-term storage within the state of Tennessee:

- Alternative 4: Perma-Fix Diversified Scientific Services Inc. Site - Perma-Fix DSSI operates a RCRA-permitted hazardous waste treatment facility in Roane County, Tennessee, that accepts and treats low-level radioactive and mixed (hazardous and radioactive) wastes from offsite government (e.g., DOE) and commercial generators that are mandated for regulated treatment and disposal with unique consideration of radiological properties (Perma-Fix DSSI 2021). The Perma-Fix DSSI site is located approximately 4.5 miles east of Kingston and 10 miles southwest of Oak Ridge, Tennessee, and encompasses approximately 80 acres, of which about 12 acres have been developed (i.e., cleared of natural vegetation) and 7.2 acres have been fenced and permitted as a hazardous waste facility. Perma-Fix DSSI has constructed a new 8,400-square-foot container

storage building (referred to as the Container Storage Building Unit [CSBU]) to support waste and material storage (Perma-Fix DSSI 2021). This building could be used for the long-term management and storage of mercury. Independent of the Proposed Action, Perma-Fix DSSI is also planning to build an additional building (referred to as the CSBU expansion) immediately adjacent to the CSBU as part of their corporate planning. This CSBU expansion could also be used for the long-term management and storage of mercury.

- Alternative 6: Clean Harbors - Clean Harbors has a total of three potential facilities at three different site locations that could be used for mercury storage, including an existing site in Greenbrier, TN, a RCRA-permitted hazardous waste storage facility located on the north end of the community of Greenbrier, Tennessee, in Robertson County. The site encompasses 12 acres. The facilities include an office building, storage warehouse, supply warehouse, loading dock, trailer containment building, asphalt parking lot, and gravel work areas.

TDEC is the environmental and natural resource regulatory agency in Tennessee with delegated responsibility from the U.S. Environmental Protection Agency (EPA) to regulate sources of air pollution; solid and hazardous waste; radiological health issues; underground storage tanks; and water resources. TDEC has reviewed the Draft EIS and has the following comments regarding the proposed project:

### General

10-1

TDEC notes that natural and social characteristics of the two Tennessee sites described in the Draft EIS present challenges for long-term storage of elemental mercury while protecting human health and the environment. First, the karst geology of both eastern and middle Tennessee where these sites are proposed makes both sites poor candidates for long-term storage of elemental mercury. The karst bedrock (typically limestone that erodes away with dissolution, producing caves, sink holes, etc.) can facilitate and maximize subsurface contaminant transport in the event of a release. The shallow proximity to groundwater and subsequent drinking water sources could make potential spills imminently dangerous to the environment and local populations. Other states, particularly those in the western U.S. where distances to groundwater greatly exceeds that in Tennessee, provide better, safer alternatives with more favorable geology.

The hydrogeologic features near the Kingston site (Perma-Fix DSSI) are of particular concern, as the karst terrain and shallow ground water table greatly increase the risks associated with any potential release into the environment. Elemental mercury released into the environment can find its way to groundwater and surface water where it could then be converted to methylmercury, which is then readily bioaccumulated.

10-2

The Kingston site is located near DOE's Oak Ridge Reservation, which has already released a great deal of elemental mercury into the environment. Many of the creeks, rivers and reservoirs in the area are currently listed on the state's Clean Water Act (CWA) 303 (d) list for methylmercury, and many of the area surface waters have active fishing restrictions and fish tissues advisories due to bioaccumulation of methylmercury.<sup>1</sup> Further, the Kingston site is located near the Kingston Fossil Plant coal ash spill that occurred on December 22, 2008. This spill released over 1 billion gallons of coal ash slurry into the surrounding land and water, leading to remediation damages of over \$1 billion. Selection of the Kingston location poses potential risk of enhanced cumulative

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<sup>1</sup> See [Final 2022 List of Impaired and Threatened Waters in Tennessee](https://www.tn.gov/content/dam/tn/environment/water/watershed-planning/wr_wq_fish-advisories.pdf);  
[https://www.tn.gov/content/dam/tn/environment/water/watershed-planning/wr\\_wq\\_fish-advisories.pdf](https://www.tn.gov/content/dam/tn/environment/water/watershed-planning/wr_wq_fish-advisories.pdf).

impacts to the already-burdened community surrounding DOE's Oak Ridge Reservation and subject to the Kingston coal ash spill.

10-3 TDEC is also concerned by both the Kingston and Greenbrier site proximity to nearby population centers. Over 12,000 people live within a five-mile radius of the Kingston facility, and nearly 25,000 people live within a five-mile radius of the Greenbrier facility.<sup>2</sup> These surrounding population totals are much higher than all but one of the proposed storage locations outside of Tennessee. The disparity in surrounding community exposure risk is particularly stark when comparing the proposed Tennessee storage locations to Hawthorne Army Depot in Hawthorne, Nevada (Alternative 1) and Waste Control Specialists in Andrews, Texas (Alternative 2), which have five-mile radius populations of approximately 541 and 170, respectively.

10-4 Selection of either Tennessee location will require close coordination between all the appropriate TDEC Bureau of Environment Divisions to assure that regulatory requirements are met. If either of the Tennessee locations are selected, TDEC provides the following additional comments pertaining to TDEC's regulatory structure.

### **Air Pollution Control**

10-5 If a new air pollution source will be built or changes to an existing source will occur at the Clean Harbors (Greenbrier) facility, the Tennessee Air Pollution Control Regulations (TAPCR) require that application for the new source or modification be made not less than 90 days prior to the estimated start date of construction. If a new air pollution source will be built or changes to an existing source will occur at the Perma-Fix DSSI (Kingston) facility, the TAPCR may require a new construction permit or a Title V operating permit modification. Application for the new source or modification must be made in accordance with the appropriate rule. TDEC recommends that DOE contact the TDEC Division of Air Pollution Control early in the project planning process if DOE requires assistance in determining the correct permitting options for this project.

### **Solid Waste Management**

10-6 Although the Draft EIS uses the term "RCRA-permitted" in reference to both Tennessee facilities, the Resource Conservation and Recovery Act (RCRA) at the federal level does not directly apply within Tennessee. Rather, regulatory authority over hazardous waste facilities is exercised through the Division of Solid Waste Management (DSWM) in TDEC, which has authorization from EPA based on RCRA at the federal level.<sup>3</sup> The permits are issued by the state authorized program, which operates within Tennessee "in lieu of" the federal program. TDEC seeks clarification on several issues identified in the Draft EIS and offers some concerns:

- 10-7
- **Coordination between Federal and State Regulatory Structures:** Both Tennessee facilities have state permits. If DOE leases part of the facility, what would be the "DOE facility"? Would a DOE-leased area remain under the state permit and be approved as a modification? If the DOE-leased area is not under the state permit, would the remainder of the state permit remain effective for other areas not exclusively dedicated to storage of elemental mercury? Would the remainder of the facility remain subject to the financial assurance requirements now in place and not be covered by the exemption applied to the federal government?

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<sup>2</sup> United States Environmental Protection Agency. 2022 Version. EJSscreen. Retrieved: August 26, 2022 ([www.epa.gov/ejscreen](http://www.epa.gov/ejscreen)).

<sup>3</sup> 42 USC §6926

- **Unique Risks and Characteristics of Permanent Storage:** While it is understood that the elemental mercury subject to MEBA and removed from commerce would be in effect “abandoned” and, hence, become a hazardous waste, the regulatory scheme of RCRA includes the Land Disposal Restrictions (LDR) program, which places limitations on long-term storage without treatment.<sup>4</sup> Notwithstanding the language in the legislation that would limit operation of this RCRA “storage prohibition” to the DOE repository, the underlying policy considerations against storage without treatment remain.<sup>5</sup> Because treatment and disposal, not long-term storage, are the policy goals, storage of elemental mercury without treatment is problematic even at a permitted facility. The proposed long-term storage is tantamount to disposal, and neither of the Tennessee sites have been evaluated for disposal criteria. While the permitted facilities do have features such as containerization and inspection and secondary containment and security and emergency planning under the regulatory criteria, the same regulations do not consider the necessary characteristics for permanent storage at these facilities. Time exacerbates risks. The elemental mercury would remain in a mobile form and the facility would be subject to risks such as a security breach or natural disaster that could cause a release.

TDEC appreciates the opportunity to comment on this Draft EIS. Please note that these comments are not indicative of approval or disapproval of any Proposed Action Alternatives, nor should they be interpreted as an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,



**Bryan Davidson** | Policy Analyst  
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cc: Steve Stout, TDEC, OGC  
Jenn Tribble, TDEC, OPP  
Lisa Hughey, TDEC, DSWM  
Colby Morgan, TDEC, DoR - OR  
Lacey Hardin, TDEC, APC

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<sup>4</sup> 42 USC §6924(d)(1)

<sup>5</sup> TDEC also notes that the exemption in the MEBA statute references only the federal law, and the issue is reserved to evaluate preemptive effect on state law in a RCRA - authorized state program.



State of Utah

SPENCER J. COX  
Governor

DEIDRE HENDERSON  
Lieutenant Governor

Department of  
Environmental Quality

Kimberly D. Shelley  
Executive Director

DIVISION OF WASTE MANAGEMENT  
AND RADIATION CONTROL

Douglas J. Hansen  
Director

August 16, 2022

Julia Donkin  
NEPA Document Manager  
Office of Environmental Management  
U.S. Department of Energy, EM-4.22  
1000 Independence Avenue SW  
Washington D.C. 20585

RE: SEIS-II DOE/EIS-0423-S2D  
Draft Long-Term Management and Storage of Elemental Mercury  
SEIS II No. 20220092  
Federal Register, Volume 87, No. 130, page 40830

Dear Ms. Donkin:

The Division of Waste Management and Radiation Control (Division) reviewed the Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (SEIS-II) prepared by the U.S. Department of Energy (DOE) Office of Environmental Management. We appreciate the opportunity to provide the DOE with our perspective on the matter, including insights and areas of concern. Please consider the following comments identified regarding the SEIS-II. Particularly, we want to emphasize that it is necessary to directly involve all states being proposed to host long-term mercury storage facilities, or within a transportation corridor, in the decision-making process. Consistent with the longstanding position of the State of Utah, we would like to be clear that it is a states' right to determine what is in their own best interests.

11-1

"U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, and Long-Term Storage of Elemental Mercury" (2009)<sup>1</sup> states that the Secretary of Energy shall designate a DOE facility or facilities for the purpose of long-term management and storage of elemental mercury generated within the United States. This guidance also asserts that the facility designated by DOE shall be operational and shall accept custody of elemental mercury. Page 2-4 of that Interim Guidance asserts that it was prepared after consultation with U.S EPA and all appropriate state agencies in affected states. However, at that time, Utah was not considered to be an affected State.

(Over)

DSHW-2022-022398

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DOE is now proposing to designate one or more facilities for the long-term management and storage of elemental mercury in accordance with the 2008 Mercury Export Ban Act (MEBA). An evaluation of facilities conducted by DOE identified the following sites as candidate locations for a long-term mercury storage facility:

- HWAD in Hawthorne, Nevada;
- WCS site near Andrews, Texas;
- Bethlehem Apparatus Company, in Bethlehem, Pennsylvania;
- Perma-Fix Diversified Scientific Services, Inc., in Kingston, Tennessee;
- Veolia in Gum Springs, Arkansas; and
- Clean Harbors (facilities in Pecatonica, Illinois; Greenbrier, Tennessee, and **Tooele, Utah**).

11-1  
Cont

This letter is regarding the Clean Harbors Grassy Mountain Facility (CHGM) located in Tooele, Utah. It is essential that the governor and representatives of a potentially affected State be part of any decision-making process regarding the acceptability of a long-term storage of elemental mercury within their State, regardless of whether the facility is located on private, federal, or Tribal land. Allowing states to have a decisional approval role for any long-term storage facility of a highly toxic element located within its boundaries will ensure that the rights of states are left intact. It will also engender trust and confidence in the environmental processes of major federal actions.

On July 5, 2022, the Environmental Council of States (ECOS) issued a resolution addressing mercury that requested DOE expedite siting and operation of the MEBA mercury storage facility and ensure its safety in full consultation with all state and local governments that are potential host sites for the repository as well as all parties currently hosting temporary storage facilities. The letter also requests that the federal government ensure the safety of any interim transport and storage of excess commodity mercury pending completion of the MEBA storage facility, and that the federal government cover any State planning, oversight, and/or implementation expenses that may be incurred. ECOS requests that the U.S. EPA expedite promulgation of a revised reporting rule and implement the court decision regarding its mercury reporting rule. ECOS also requests that the U.S. EPA publish all mercury reporting information received under Lautenberg,<sup>ii</sup> so that all interested parties have complete, transparent, and accurate data to make informed decisions and to appropriately control and eliminate mercury uses and release. ECOS and the Division strongly encourage the federal government to provide resources, policies, and regulations sufficient to effectively implement and assess results of the international mercury partnerships and the Minamata Convention on Mercury.<sup>iii</sup>

11-2

The Minamata guideline on the environmentally sound interim storage of mercury from December 2018 suggests that when locating storage for mercury, environmental, technical, and social factors should be considered, including the importance of understanding any potential environmental, health and/or social impacts. The site of the storage facility should, where practicable, be chosen in conformity with geological, hydrological, hydrogeological, biological, ecological, meteorological, and political criteria. Special safety measures should be considered in storage facilities located in geologically unstable areas such as seismically active areas or near environmentally sensitive areas, especially areas with threatened or endangered species; these considerations would apply to a Utah location. For these facilities, additional engineering and risk management measures would need to be put in place. Additionally, public consultations should be held when adverse impacts on human

11-3

11-3  
(cont) health and the environment are involved to inform the local community about siting criteria and procedures for mitigating potential human health and environmental risks related to interim storage of mercury. Including, for example, emergency response plans in the event of an incident. In summary, there are many factors that must be carefully considered when selecting a site location.

11-4 Regarding the proposed CHGM site located in Tooele, Utah, in comparison to the other seven alternative choices, CHGM has the fourth largest property size with the smallest developed footprint, smallest building size, and second to smallest available storage space. CHGM is currently permitted for temporary storage (1 year) of 1,713 metric tons of elemental mercury. DOE is estimating that CHGM only has a total mercury storage capacity at the 'Drain and Flush Building Warehouse One' of 900 metric tons; far short of the total inventory of elemental mercury that is projected for the next 40 years at 10,000 metric tons. In the August 19, 2020 letter to The Honorable Dan Brouillette, titled MEBA Long-Term Management and Storage of Elemental Mercury, sent from Matthew Sauvageau, Vice President Environmental Compliance, Clean Harbors Environmental Services, Inc. (CHES), CHES stated that CHGM met all requirements required by MEBA. Yet, this letter only acknowledged the equipment necessary and CHGM's current permit as a Treatment, Storage, and Disposal Facility.

### *Geologic Hazards*

11-5 The DOE calculated the seismic risk prior to the March 2020 earthquake in Magna, Utah. This earthquake had a magnitude 5.7 and 2,589 associated aftershocks. Since that earthquake, multiple research papers have concluded that ground shaking may be higher than previously estimated for future earthquakes. The Wasatch Front is at risk of a magnitude 7.0 to 7.6 earthquake occurring.<sup>iv</sup> The calculations from the DOE SEIS-II previously evaluated CHGM third highest of seismic risk, peak ground acceleration. This issue requires a higher evaluation of risk, and based on this new evidence, the State of Utah would like to have more information about how seismic risk will be accounted for in the final decision.

### *Water Resources*

11-6 The DOE SEIS-II did not account for average depth to groundwater. Groundwater depth is shallow at CHGM (13 feet or less). This issue requires a higher evaluation of risk.

### *Ecological Resources*

11-7 In the 2021 U.S. Fish and Wildlife Service (USFWS) report cited by the DOE,<sup>v</sup> only the lack of bald and golden eagles and migratory birds at the CHGM site was considered. However, the Bureau of Land Management (BLM) acknowledges the following sensitive species in Tooele County: burrowing owl, ferruginous hawk, greater sage-grouse, Lewis's woodpecker, short-eared owl, Allen's big-eared bat, dark kangaroo mouse, kit fox, pygmy rabbit, Townsend's big-ear bat. BLM also acknowledges the following sensitive plants in Tooele County: Pohl's Milkvetch and Dunes Four-Wing Saltbush. Identifying which species occur in an area affected by an action can be accomplished through literature reviews and coordination with appropriate federal and state regulatory agency representatives, resource managers, and other knowledgeable experts. It is easy to dismiss the amount of life in a barren desert,

hence their sensitivity for survival is that much more imperative. This issue requires a higher evaluation of risk.

The success of community engagement around the selection of a long-term storage facility should be measured by:

- Whether the state has a decisional role in siting the facility.
- The degree to which participating parties have expertise with and have a track record of competently designing and managing elemental mercury waste storage facilities for long term storage.
- The degree the licensing authority (The Utah Department of Environmental Quality, The Division of Waste Management and Radiation Control) that has been engaged in the SEIS process can exhibit that the best interests of that community are at the forefront of the decision.
- The ability of technical experts to effectively communicate the applicability of regulations, safety concerns, and other technical topics to the general public.
- Adherence to the principle that the potential hosting community will benefit from meaningful involvement in the selection process.

11-8

The Division, as the licensing and regulatory oversight agency, must have an active role in approval of long-term storage facilities located within the State to ensure that health, safety, and environmental concerns are adequately addressed. Utah requests that the DOE's SEIS-II process present an opportunity for the greater community of Utah to strengthen its capacity to respond to and address the technical aspects of a long-term storage solution for elemental mercury. Utah agrees there is no higher priority than protecting public health and ensuring and safeguarding Utah's air, land, and water through balanced regulation. The fact that mercury is a highly toxic element that is found both naturally and as an introduced contaminant in the environment is not disputed. Elemental mercury is a pollutant of environmental concern in the United States and throughout the world. Elemental mercury can be transformed in the environment into methylmercury, which can be highly toxic and bioaccumulate in fish consumed by humans, which has known neurotoxicity. Mercury is a particularly serious problem for pregnant women and children. Fetuses and young children suffer the greatest risk because their nervous systems are still developing. Of note, Utah is home to the youngest population in the country with the highest birth rate.

DOE must also consider social equity (or inequity) from the perspective of a State that produces limited quantities of the highly toxic elemental mercury. Projections of annual generation of mercury subject to MEBA from mining range from 128 metric tons per year in 2011 to 126 metric tons per year in 2013. Projections for mercury produced by Nevada ore processes are 95 to 99% of that total. The broad scope of impacts needs to be balanced by both short- and long-term benefits. Precious Metals Recovery LLC has spent millions of dollars to pinpoint the ideal location for a Treatment Storage Facility for calomel, activated carbon, and elemental mercury. It seems logical to co-locate the repository at the source of generation, thereby eliminating any environmental and safety issues with unnecessary handling of the elemental mercury and long-haul transportation. In DOE's own words from the Office of NEPA Policy and Compliance, "Do not overlook reasonable technology, transportation, or siting alternatives, including off-site alternatives."<sup>vi</sup> The permit number for the above-mentioned is RCRA Permit NEVHW0034, EPA ID Number NVR000088542. It is the DOE's

11-9

responsibility to ensure that this social inequity and increase in risks from unnecessary handling and transportation is addressed appropriately.

11-10 | Moreover, the Division supports comprehensively addressing social equity *and* environmental justice issues. Environmental justice issues often arise but are not effectively addressed during the process of selecting a disposal site. The State of Utah believes that DOE needs to further evaluate the impact on the Confederated Tribe of the Goshutes and the Skull Valley Band Goshutes.

11-11 | All these issues require specialized expertise, and Utah is limited to hiring international experts, those who work in academia (but aren't reliant on federal grants), or a select few experts within the United States. Additionally, Utah would end up bearing the financial burden to ensure that all technical and environmental issues would be adequately addressed for permitting. To improve the process, DOE should seek funding for stakeholder participation similar to other state involvement programs.

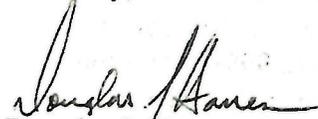
In summary, in selecting a long-term mercury storage facility, the DOE should:

- 11-1 • Include the governor and representatives of Utah in the decision-making process.
- 11-9, 10 • Consider environmental, technical, and social factors, including social equity and environmental justice.
- 11-8 • Consider environmental health and social impacts on young populations.
- 11-3 • Consider geological, hydrological, hydrogeological, biological, ecological, meteorological, and political criteria.
- 11-5, 6, 7 • Evaluate geologic hazards, water resources, and ecological resources at a higher risk in Utah.
- 11-2 • Ensure the safety of any interim transport and storage.
- 11-2 • Provide resources, policies, and regulations sufficient to implement and assess the impact.

The Division applauds the DOE for taking time to review and consider comments and perspectives from individual States. We look forward to meaningful consideration as we continue to participate in the environmental process.

If you have any questions, please call or email Stevie Norcross, Assistant Director at (801) 536-0258, [stevienorcross@utah.gov](mailto:stevienorcross@utah.gov), or Sally Kaiser, Environmental Engineer at (801) 536-0283, [skaiser@utah.gov](mailto:skaiser@utah.gov).

Sincerely,



Douglas J. Hansen, Director  
Division of Waste Management and Radiation Control

DJH/SHK/wa

- c: Julia Donkin, NEPA Document Manager, Office of Environmental Management, US DOE  
(Email and Hard Copy)  
Annette Maxwell, U.S. EPA, Region VIII (ENF)  
Jeff Gaines, U.S. EPA Headquarters  
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Stevie Norcross, Ph.D., Asst. Director, Div. of Waste Management and Radiation Control,  
UDEQ

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<sup>i</sup> U.S. Department of Energy Interim Guidance on Packaging, Transportation, Receipt, Management, NS Long-Term Storage of Elemental Mercury, November 13, 2009. Prepared for U.S. Department of Energy, Office of Environmental Management. Prepared by Oak Ridge National Laboratory Contract DE-AC05-00OR22725.

<sup>ii</sup> <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-century-act-4>

<sup>iii</sup> <https://www.epa.gov/international-cooperation/minamata-convention-mercury>

<sup>iv</sup> <https://earthquakes.utah.gov/magna-quake/>

<sup>v</sup> <https://ipac.ecosphere.fws.gov/location/OV634QPTCRED5LSLPLKINZW47Q/resources>

<sup>vi</sup> Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements, Second Edition, December 2004. DOE, Office of NEPA Policy and Compliance

**Date:** August 2, 2022

**To:** Roane County Executive and Roane County Commission

**From:** Roane County Environmental Review Board

**Subject:** DOE/EIS-0423-S2D, Long-term Management and Storage Elemental Mercury – RCERB Review and Comment Submission on Supplemental Environmental Impact Statement and Supplemental Environmental Impact Statement Summary

The Roane County Environmental Review Board (ERB) was requested by the Roane County Executive to review the DOE/EIS-0423-S2D, Long-term Management and Storage of Elemental Mercury – Supplemental Environmental Impact Statement (EIS) and Supplemental EIS Summary. This EIS covers the long-term management and storage of elemental mercury generated within the United States (42 U.S.C. § 6939f(a)(1)). The Mercury Export Ban Act of 2008 (Public Law 110-114) and the Frank R Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act (Chemical Safety Act of 2016; Public Law 114-182) directs DOE to designate a “facility or facilities of DOE” for this purpose. The term “facility or facilities of DOE” is not defined in the above referenced public law documents but DOE construes this the term to include a facility leased from a commercial entity or another Federal agency, over which DOE provides an appropriate level of oversight and guidance. In this EIS, facilities at Perma-Fix Diversified Scientific Services, Inc. (Perma-Fix DSSI), in Kingston, Tennessee have been identified as potential candidates for utilization for long-term mercury storage.

On May 24, 2021, DOE issued a Notice of Intent in the Federal Register (86 FR 27838) notifying the public of DOE’s intent to prepare this Draft SEIS-II. Two DOE documents covering the Supplemental Environmental Impact Statement, along with a reference document, were posted by DOE. The Roane County ERB’s review of the two identified DOE documents generated the following comments (submitted comments are identified in blue):

*Long-term Management and Storage of Elemental Mercury, Supplemental Environmental Impact Statement, Summary*

- 12-1 | 1. Section S.1.1, 2<sup>nd</sup> paragraph: MEBA also authorized DOE to assess and collect a fee at the time of delivery of mercury to the DOE storage facility to cover certain costs of long-term management and storage.
  - a. Does this mean DOE can accept elemental mercury from non-federal entities and charge them these costs?
  - b. In doing so, does DOE then store elemental mercury from generators not only with the U.S., but also from countries around the world?
- 12-2 | 2. Section 2.1.1, 3<sup>rd</sup> paragraph: MEBA requires DOE to adjust fees for generators temporarily accumulating elemental mercury if the DOE facility is not operational by January 1, 2019. If the DOE facility is not operational by January 1, 2020, DOE must: (1) Immediately accept the conveyance of title to all elemental mercury accumulated on site prior to January 1, 2020.

12-2  
(cont)

- a. Has DOE accepted the conveyance of title to all elemental mercury accumulated on site prior to January 1, 2020?
- b. Is DOE storing, or paying the cost of storage of the accumulated mercury for which DOE has title?
- c. Where is the permitted facility in which the mercury named in question (b) above?

12-3

3. **Section S.1.2, 8<sup>th</sup> paragraph:** On October 14, 2020, DOE issued a Sources Sought Synopsis/Request for Information to identify companies capable of potentially providing (1) leased space for long-term management and storage of elemental mercury generated in the U.S. and (2) associated services necessary for the long-term management and storage of elemental mercury. Since no preferred alternative was designated in this SEIS-II; how was the information from the procurement process used and how did it influence a designation of no preferred alternative?

12-4

4. **Section S.2.1.2, 2<sup>nd</sup> paragraph:** The second paragraph starts with “Table S.2-2.” This appears to be a typo. It should be “Table S-2.

12-5

5. **Section S.2.1.2, 3<sup>rd</sup> paragraph:** For instance, if a treatment and disposal approach **were** available within 5 years, the total estimated elemental mercury to be accumulated and need storage by that time would be about 2,500 MT. The word “were” in the previous sentence should be “was.”

12-6

6. **Section S.3.7:** As most of the sites are existing operational facilities, the incremental increase in utility requirements would be small. The statement that approximately 16,000 gallons of additional sanitary water would be needed to support personnel for mercury operations from Section S.3.3 needs to go here in this section as this is a utility site infrastructure need.

7. **Section S.3.9 Facility Accidents, 2<sup>nd</sup> paragraph:** The probability of a strong earthquake in these areas is unlikely, as peak ground acceleration in these areas are of relatively low seismic activity. Members of the public likely would evacuate from the area immediately, resulting in a reduction to the severity level to the SL-II range.

12-7

- a. How would members of the public be notified of the need to evacuate in the case of a mercury storage building total collapse at the Bethlehem Apparatus and Clean Harbors Greenbrier sites?

- b. The Perma-Fix DSSI facility is only 950 ft from the nearest business or residence and the Clean Harbors Pecatonica site is only 607 ft from the nearest business or residence. This SEIS-II needs to address how members of the public would be protected/evacuated in the event of an accident scenario involving mercury storage building collapse with mercury vapor escaping.

12-8

8. **Section S.3.9 Transportation:** Transportation risks under all alternatives are a function of the number of miles driven and nature of the accident (fire or no fire). Table S-8 summarizes the consequences and risk to human health receptors under transportation accidents with mercury spills. Table S-8 appears to have some errors in the descriptors as follows: (1) Spill onto ground with SL-I to SL-IV, but says Negligible (SL-IV is most severe), (2) Spill with fire – inhalation with SL-III to SL-II, but says Negligible or Low (SL-III is at least moderate), (3) Consumption of methylmercury in fish – dry deposition onto water with Potentially above

- 12-8 (cont) | SL-1/SL-II) but says Negligible (SL-II is low); and (4) Consumption of methylmercury in fish – wet deposition onto water with Potentially above SL-I/SL-II but says Negligible (SL-II is low).
- 12-9 | 9. **Section S.3.12 Environmental Justice: There would be no disproportionately high and adverse effects on minority or low-income populations under the Proposed Action at any of the alternative sites. See Comments under Section S.3.9.**

*Long-term Management and Storage of Elemental Mercury, Supplemental Environmental Impact Statement, Volume 1 - Chapters*

- 12-10 | 1. Chapter 1, Section 1.2, Page 1-2: It is identified that DOE will obtain a leasehold interest in any storage facility chosen for use and that any commercially owned facility will afford DOE an appropriate level of responsibility and control over the facility. Since this will factually make DOE responsible for facility operations, if the Perma-Fix DSSI site is chosen will it be added to the current Oak Ridge Reservation annual monitoring report for evaluation of impacts to the local environment (air, surface water, ground water, fish, bird, insects, etc.), as related to the mercury being stored?
- 12-11 | 2. Chapter 1, Section 1.2, Page 1-3: Since DOE will be indemnifying the generators of any mercury that is stored in the Perma-Fix DSSI facility, how will DOE assure the public that it will ensure the negative impacts experienced during the TVA ash spill will not be repeated upon the Roane County citizens again?
- 12-12 | 3. Chapter 1, Section 1.3, Page 1-6: In Footnote #4, it is mentioned that 1,280 metric tons (1,410.9 tons or 2,821,888 lbs.) of mercury is currently stored as a commodity at the Y-12 facility in Oak Ridge but isn't included in the projected 40-year projected estimate of 10,000 metric tons of mercury that will require storage. It was also stated that this mercury could be identified as waste in the future. What are the current chances that this material will be deemed "waste" in the future? What is the timeframe for final determination? This is important considering mercury has generated such a large area environmental insult in the Oak Ridge and Oak Ridge Reservation area creeks.
- 12-13 | 4. Chapter 1, Section 2.1.1, Page 2-1: Mention is made about the potential for EPA to generate Land Disposal Restriction treatment technology that stabilizes elemental mercury extracted from high-level mercury-containing wastes through a process of conversion to mercuric sulfide (HgS) followed by double encapsulation and monofil disposal. What assurances do Roane County citizens have that mercury waste stored at the Perma-Fix DSSI facilities will not be converted onsite from the elemental mercury to HgS form for disposal or packaged and then placed into the new EMDF landfill being planned near Y-12?
- 12-14 | 5. Chapter 2, Section 2.1.3, Page 2-4: A strict dependence on heavy load trucking for movement of the waste shipments has been identified by DOE. As such, have the Department of Transportation (DOT)/County Road Departments for the each of the facility locations (such as, Tennessee DOT and Roane County Highway Department for Perma-Fix DSSI facilities in Kingston, Tennessee) been contacted to identify the potential for increased heavy load traffic in the area of the proposed facilities? This heads-up identification could be crucial to ensure proper inspection of bridges and

roadways involved in material movements can be conducted to prevent any scheduled move impacts.

- 12-15 6. Chapter 2, Section 2.3, Table 2-4, Page 2-13: Perma-Fix DSSI column indicates “concrete slab-on-grade floor”. Due to the heavy weight distribution identified (1,200 MT and 1,800 MT) for intended storage, should the floors not be required to be “reinforced concrete slab-on-grade”?
- 12-16 7. Chapter 2, Section 2.3.4, Page 2-24: Floor of proposed storage facilities at Perma-Fix DSSI are identified as epoxy sealed and having secondary containment utilizing perimeter curbing. Has curbing been verified to be of sufficient height to contain material volumes identified in accidental spill scenarios?
- 12-17 8. Chapter 2, Section 2.3.4, Figure 2-9, Page 2-25: The aerial view reflected for the Perma-Fix DSSI facility seems to indicate a surface that slopes toward the retention pond in the image, with the storage building planned for use on the highest ground level. Any material release would therefore flow toward this retention pond.
- a. Is the retention pond lined to prevent potential contaminants flowing into groundwater aquifer, which is still used by public for water supply?
  - b. Is there any history of pond overtopping, thus higher potential for contaminant to move offsite into other surface water systems?
- 12-18 9. Chapter 2, Section 2.9.3, Table 2-6, Page 2-37: Distance to nearest business or residence indicates 950 feet. Utilizing Google Maps, the distance from the existing planned storage building to the nearest public structure measured only 496 feet.
- 12-19 10. Chapter 2, Section 2.9.3, Page 2-40: It is stated that “No impacts to groundwater or surface water would be expected”.
- a. Until questions in Item #8 above are answered, there can’t be any assurances that the unexpected has a high potential to occur.
  - b. Additional monitoring for the Perma-Fix DSSI location will be required due to its close proximity location to the public, high traffic public highways, and potential impacts to public use resources (air, groundwater, and surface water).
- 12-20 11. Chapter 2, Section 2.9.4, Page 2-40: Additional monitoring for the Perma-Fix DSSI location will be required due to its close proximity location to the public, high traffic public highways, and potential impacts to public use resources (air, groundwater, and surface water).
- 12-21 12. Chapter 2, Section 2.9.9, Page 2-43: Facility accidents identified include mercury spills. Seismic probability at several of the sites is identified. However, all the sites discussed have less seismic potential than the Perma-Fix DSSI site (second highest of all the sites). Thus, the public is at a higher risk of exposure due to seismic at then Perma-Fix DSSI site than the other sites noted since they are only 496 feet away.
- 12-22 13. Chapter 2, Section 2.10.1.9, Page 2-51: All accident spills were based upon a low number of containers being breached. It is also stated that the accident conditions would not be affected by a smaller total quantity of mercury. In addition, it states that the analysis uses the specific building floor area and not the amount of mercury stored in the building. If the amount of mercury released (volume) exceeds the containment capabilities of the floor area, whether due to containment capacity exceedance or loss of floor integrity due to damage (i.e., seismic movement damage), then the volume of material released would

- be of concern and have a definite impact on the environmental impact quantification.
- 12-23 | 14. **Chapter 4, Section 4.6.7.1, Page 4-59:** If the mercury currently stored at Y-12 is reclassified as waste, would the majority of this material be targeted for storage at the Perma-Fix DSSI site?
- 12-24 | 15. **Chapter 4, Section 4.6.9.2, Page 4-61:** The distance to the nearest public structure is actually only 496 feet from the current storage building planned for mercury storage. Thus, public exposure risk is higher than that presented due to mercury vapor exposure potential.

**In support of the Roane County Executive's request, the ERB recommends that the Roane County Commission submit the identified comments to Ms. Julia Donkin, NEPA Document Manager, Office of Environmental Management, U.S. Department of Energy, EM-4.22, 1000 Independence Avenue SW, Washington, DC 20585. or E-mail to [ElementalMercury\\_NEPA@em.doe.gov](mailto:ElementalMercury_NEPA@em.doe.gov). When submitting the comments, please be sure to note comments are for DOE/EIS-0423-S2. The public comment period ends August 22, 2022.**

**Please let the ERB know if you have any questions concerning the submitted review.**



**John Shaw**  
**Roane County ERB Chair**  
[jwshawjr@comcast.net](mailto:jwshawjr@comcast.net)

Nevada Gold Mines LLC

**Comments on the Draft Long-Term  
Management and Storage of Elemental  
Mercury Supplemental Environmental  
Impact Statement**

Submitted September 6, 2022

Michael McCarthy, Esq.  
General Counsel, Barrick Gold of North America, Inc.

Hiliary Wilson, Esq.  
General Counsel, Nevada Gold Mines LLC

1655 Mountain City Highway  
Elko, NV 89801-2800

## I. Introduction

Nevada Gold Mines LLC (NGM) appreciates this opportunity to comment on the Department of Energy’s (DOE) draft supplemental environmental impact statement (DSEIS)<sup>1</sup> evaluating alternatives for the long-term mercury storage facility required by the Mercury Export Ban Act of 2008 (MEBA). DOE noticed the availability of the DSEIS on July 8, 2022, in the Federal Register. Environmental Impact Statements; Notice of Availability, 87 Fed. Reg. 40838 (July 8, 2022). In response to NGM’s request, DOE lengthened the comment period by 15 days, to September 6, 2022, which we also appreciate very much. Environmental Impact Statements; Notice of Availability, 87 Fed. Reg. 49817 (August 12, 2022).

Nevada Gold Mines is a joint venture of Barrick Gold Corporation and Newmont Corporation. The joint venture—founded in 2019—combined the companies’ principal Nevada assets into a single gold mining complex that is the largest in the world. Nevada’s gold production alone makes the United States the world’s fourth largest gold-producing nation, after China, Australia, and Russia. The joint venture is operated by Barrick.

### A. MEBA and Amendments

MEBA prohibited the export of elemental mercury effective January 1, 2013. Mercury Export Ban Act of 2008, Pub. L. 110–414, § 4, 122 Stat. 4341, 4342 (codified at 15 U.S.C. § 2611(c)(1)). MEBA also directed DOE to designate by 2010 a “facility or facilities” of [DOE]” as a long-term storage facility to accept elemental mercury generated in the U.S. that could no longer be exported.<sup>2</sup> *Id.* § 5(a)(1), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)). MEBA required the designated facility to be operational by the time the export ban became effective on January 1, 2013. *Id.* § 5(a)(2), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)). Anticipating that DOE may not meet the 2013 deadline, MEBA authorized temporary accumulation *off-site* of elemental mercury at RCRA Subtitle C-permitted facilities pending DOE’s establishment of the long-term mercury storage facility. *Id.* § 5(g)(2)(B), 122 Stat. at 4347 (codified at 42 U.S.C. § 6939f(g)(2)(B)). Without this special provision, temporary storage of elemental mercury would have been in violation of the Resource Conservation and Recovery Act’s (RCRA) ban on storage of hazardous wastes. 42 U.S.C. § 6924(j).

DOE missed both the 2010 deadline to designate the long-term mercury storage facility and the 2013 deadline to begin receiving elemental mercury for long-term storage. In 2016, Congress amended MEBA (2016 MEBA Amendments), setting a new deadline of January 1, 2019, to open the long-term storage facility. Frank R. Lautenberg Chemical Safety for the 21st Century Act, Pub. L. 114–182, § 10(c)(1), 130 Stat. 448, 478–79 (codified at 42 U.S.C. § 6939f(a)(2)). Congress also amended MEBA to provide that mines generating elemental mercury could accumulate it temporarily *on-site* until long-term storage at the DOE facility becomes available. *Id.* § 10(c)(2), 130 Stat. at 479–80 (codified at 42 U.S.C. § 6939f(g)(2)(D)).

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<sup>1</sup> Unless otherwise specified, all citations to the DSEIS are to Volume 1.

<sup>2</sup> DOE did not recount this part of the MEBA timeline in the SDEIS. *See* SDEIS at 1-3.

The 2016 MEBA Amendments imposed two penalties on DOE for continued failure to open the long-term storage facility. First, if the facility was not operational by January 1, 2019, DOE would have to pay for generators' temporary storage costs in the form of credits against future mercury storage fees. *Id.* § 10(c)(2), 130 Stat. at 479 (codified at 42 U.S.C. § 6939f(b)(1)(B)(iv)). Second, if the DOE facility was not operational by January 1, 2020, DOE was required to accept title and further responsibility for any elemental mercury accumulated on-site. *Id.* (codified at 42 U.S.C. § 6939f(b)(1)(C)).

## B. NGM's Mercury Generation

13-1 The precious metals ore at several NGM mines contains naturally occurring mercury minerals, primarily mercury sulfide, or cinnabar. NGM captures the elemental mercury resulting from thermal processing components and air pollution control devices. When the export ban became effective in 2013, NGM owners Barrick and Newmont (then operating separately) made the decision also to no longer sell mercury domestically and began to accumulate elemental mercury in off-site storage—as allowed by MEBA—at Waste Management facilities in Union Grove, Wisconsin and Emelle, Alabama. After MEBA was amended in 2016, the companies began accumulating elementary mercury on-site at the mines where the mercury was generated. With the formation of the NGM joint venture in 2019, accumulation continued to occur both off-site and on-site. As of the date of these comments, NGM has accumulated 229 metric tons of elemental mercury in off-site storage, and 245 metric tons in on-site storage. Of the mercury stored on-site, 112 metric tons had been accumulated prior to January 1, 2020, and therefore that mercury belongs to DOE. NGM is working with DOE to arrange for transfer of title and possession to the pre-2020 on-site mercury. Since January 1, 2020, NGM has generated—and stored on-site—an additional 133 metric tons of elemental mercury, all of which will remain in temporary storage and will be delivered to DOE's long-term mercury storage facility when it opens. NGM also has shipped or is preparing to ship 17 metric tons to Bethlehem Apparatus for conversion into mercury sulfide and then to U.S. Ecology's Stablex facility in Canada for permanent land disposal (explained in more detail below).

## II. General Comments

13-2 NGM's primary interests in reviewing the DSEIS are to see the DOE facility opened as soon as possible and for DOE to establish a reasonable price for long-term mercury storage that meets the requirements of MEBA. As became apparent when DOE first attempted to determine a mercury fee, the location (or locations) of the long-term mercury storage facility and the DOE fee established for mercury storage are inseparably linked. In 2019, DOE proposed its mercury fee rule months before it issued a Record of Decision (ROD) selecting the Waste Control Specialists (WCS) facility in Andrews, Texas. *Elemental Mercury Storage Fees*, 84 Fed. Reg. 53066 (October 4, 2019). Mercury generators were forced to comment on the components and reasonableness of DOE's storage fee in the abstract, without any information about where the mercury would be stored or the costs associated with that location. The process was unworkable. The current DSEIS is part of DOE's revamped process, in which DOE will first select and disclose the storage facility location (or locations), and then will propose a mercury storage fee in the context of the facility (or facilities) selected. This decision-making order is an

13-2 | improvement but does not go far enough. These two closely related federal actions should be  
(cont) | evaluated together, in the same environmental impact statement (EIS).

NGM is concerned that DOE's contemplated approach to the NEPA compliance associated with these actions will not support sound and reasonable decision-making. DOE explains that the DSEIS addresses only the environmental impacts of the storage facilities, with the impacts of the proposed fee to be considered later in a separate NEPA document. DSEIS at 1-2, n.1. DOE also notes that it considers eventual treatment and disposal costs (about which MEBA is silent) to be included as MEBA recoverable costs. *Id.* This suggests either a third round of NEPA compliance (perhaps 10, 20, or even 40 years from now, since the DSEIS is projecting 40 years of storage), or evaluation of treatment and disposal in connection with the mercury storage fee rule. Either way, separating the evaluation of costs from the analyses of proposed storage locations and eventual treatment and disposal creates a decision-making process that leaves costs to be considered almost as an afterthought, rather than as a key component of the decision-making. *See Choate v. United States Army Corps of Eng'rs*, No. 4:07-CV-01170-WRW, 2008 U.S. Dist. LEXIS 92962 (E.D. Ark. Nov. 5, 2008) (finding improper segmentation where commercial development could not be built without transportation improvements and *vice versa*); *Blue Ocean Preservation Soc. v. Watkins*, 754 F. Supp. 1450 (D. Haw. 1991) (explaining "it would be irrational, or at least unwise, to undertake the first phase if subsequent phases were not also undertaken" for a multi-phase project improperly discussed across multiple EISs).

We understand that if DOE proceeds as suggested, it will conduct a confidential procurement process in which the costs of commercial storage will be considered as part of decision-making. NGM's concern, as explained in more detail below, is that DOE has inappropriately narrowed its likely alternatives to commercial facilities only. There will be no comparison, inside or outside of the NEPA process, of the costs and associated environmental impacts of commercial storage with the costs and associated environmental impacts of storage at any facility currently owned by DOE.

13-3 | Costs are relevant to this NEPA analysis because DOE's choice will have direct and foreseeable environmental impacts, different from those analyzed in the DSEIS. Indeed, because of the ongoing delay in opening the DOE facility, NGM has already made the decision to ship some newly generated mercury to Bethlehem for treatment and then to Stablex in Canada for disposal (referred to hereafter as Bethlehem/Stablex), rather than keeping it in temporary storage for eventual delivery to DOE's facility. If DOE designates a commercial facility (or facilities) as a "facility (or facilities) of the Department of Energy"—a decision it made once and appears inclined to make again—and the mercury storage fees based on that choice are excessive, NGM and other generators may decide to treat and dispose, instead of delivering to DOE's storage facility. Just one direct and foreseeable impact of the cost of storage is that DOE's long-term storage facility may receive significantly less elemental mercury for long-term storage than the 6,800 metric tons projected, and much more of the mercury generated may end up in the Stablex landfill in Canada, or in a U.S. Ecology landfill in the U.S. The DSEIS does not analyze these possibilities, and the resulting environmental and other impacts, other than as a component of the No-Action alternative. And even in that scenario, DOE assumes that generators are unlikely to ship to Bethlehem/Stablex. *See* DSEIS at 4-8-9. The soundness of that assumption is

13-3 | undermined by the fact that NGM has already begun shipping elemental mercury to  
(cont) | Bethlehem/Stablex.

One of the most significant defects of the DSEIS is its omission of any DOE-owned facility as an alternative. DOE removed two facilities, Kansas City Bannister (Bannister) and Idaho National Laboratory (INL), because of changes in mission, but the other previously considered DOE facilities were eliminated because they would require at least some new construction. With the exception of the Hawthorne Army Depot (HWAD), the remaining alternatives are all private commercial facilities. And DOE makes clear in the DSEIS that HWAD is not preferred because of the likely leasing and permitting delays DOE would encounter there. DSEIS at 2-34 (“DOE does prefer one or more of the existing commercial facilities evaluated in this Draft SEIS-II because selection of one or more of these commercial facilities would facilitate schedule urgency established by MEBA.”).

13-4 | The omission of DOE-owned sites means that the DSEIS lacks, among other things, any comparison of cost or other advantages (or disadvantages) of one type of storage over another. Including DOE-owned facilities would have enabled DOE to consider whether cost differences between DOE-owned and commercial facilities really should be a factor in its decision-making. Comparing commercial facilities with DOE storage would allow DOE to balance the statutory directives of MEBA with the agency’s expressed need to establish a long-term mercury storage facility as quickly as possible. That kind of insight into decision-making is the reason NEPA requires alternatives analysis. 42 U.S.C. § 4332(C)(iii); see *High Country Conser. Advocates v. U.S. Forest Serv.*, 951 F.3d 1217 (10th Cir. 2020) (employing “rule of reason” to find agency EIS inadequate because of a “one-sided approach” in omitting detailed consideration of an alternative because it did not align to one objective despite aligning to another objective).

13-5 | NGM acknowledges that DOE’s decision-making process in this case is complex. We understand also that costs are not typically a focus of NEPA documents. However, this is a unique Federal action, and costs are uniquely relevant in this decision-making process. MEBA requires DOE to establish a long-term mercury storage facility and *allows but does not require* generators to use it. NGM and other generators have accumulated elemental mercury in temporary storage while waiting for DOE to establish the long-term mercury storage facility, which mercury MEBA requires to be delivered to DOE’s facility when it opens. 42 U.S.C. §§ 6939f(g)(2)(B), 6939f(g)(2)(D). However, generators retain the option to send newly generated elemental mercury (mercury not placed in temporary storage) for treatment and disposal instead of delivering it to DOE. The cost of DOE storage is therefore directly relevant to how and where elemental mercury generated in the U.S. is managed now and in the future. We believe the DSEIS in its current form is defective because it does not address the various facets of the project holistically, and it assumes that costs are not relevant to environmental impacts. See *Matthews v. U.S. Dep’t of Transp.*, 527 F. Supp. 1055, 1057 (W.D.N.C. 1981) (explaining NEPA “does not permit the agency to eliminate from discussion or consideration a whole range of alternatives, merely because they would achieve only some of the purposes of a multi-purpose project,” then enjoining further development of highway until further analysis of possible bypass was completed).

13-5  
(cont)

Timing may be an appropriate factor in the analysis of alternatives, but DOE should not have made it *the deciding factor* in whether an alternative should be included. Inclusion of DOE-owned facilities would have strengthened the analysis of alternatives. Also, as discussed further below, DOE arguably is required to site the mercury storage facility at one of its own facilities. As presented, the DSEIS evaluates seven commercial facilities whose likely impacts would be geographically different, but otherwise very similar. Without more diverse alternatives, the DSEIS does not do its job of informing decision-makers and the public. The exclusion from the DSEIS of any real alternatives to commercial storage is inconsistent with the twin purposes of NEPA: to identify the environmental impacts of federal actions and to inform the public about DOE's decision-making. *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 553 (1978).

13-6

DOE should supplement the DSEIS with analysis that (1) includes DOE-owned facilities (even if they would require some construction or permitting); (2) compares their likely costs with the costs of commercial storage as well as currently available and foreseeable alternatives to DOE long-term storage; (3) addresses the mercury storage fee, including the portion of the fee attributable to eventual treatment and disposal; and (4) evaluates the environmental impacts of the proposed action with these new dimensions taken into account.

#### A. DOE's Segmentation of the NEPA Process is Inconsistent with NEPA and CEQ/DOE Regulations.

13-7

Based on DOE's explanation of its decision-making process, its NEPA analysis may be conducted in as many as four segments: (1) the current DSEIS; (2) the mercury storage fee rule; (3) the environmental synopsis required for the procurement process (*see* 10 C.F.R. § 1021.216(h));<sup>3</sup> and (4) treatment and disposal of mercury.<sup>4</sup>

DOE's regulations direct that NEPA should be considered "early in the planning stages for DOE proposals." 10 C.F.R. § 1021.101. CEQ regulations provide:

Agencies shall define the proposal that is the subject of an environmental impact statement based on the statutory authorities for the proposed action. Agencies shall use the criteria for scope (§ 1501.9(e) of this chapter) to determine which proposal(s) shall be the subject of a particular statement. ***Agencies shall evaluate in a single environmental impact statement proposals or parts of proposals that are related to each other closely enough to be, in effect, a single course of action.***

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<sup>3</sup> Pursuant to DOE's NEPA rules for procurement actions, DOE may require offerors to submit environmental data, which DOE must independently evaluate. 10 C.F.R. § 1021.216(b). The rules provide further that EPA must prepare a (confidential) environmental critique for offerors "in the competitive range," which can be based on the environmental data submitted, on DOE's own environmental analysis, or both, but must be sufficient to support a reasoned decision. 10 C.F.R. § 1021.216(f). Then, DOE must prepare a publicly available environmental synopsis, file it with EPA, and incorporate it into the EIS for the action. 10 C.F.R. § 1021.216(h). The EIS must be prepared before any action is taken under the contract, if one has been awarded. If the award has occurred before completion of the EIS, it must be made contingent on completion of the NEPA process.

<sup>4</sup> It is not clear from the DSEIS, but NGM understands that depending upon timing, DOE may incorporate the environmental synopsis into the final version of this EIS.

40 C.F.R. § 1502.4(a) (emphasis added). It is difficult to imagine two issues being more closely related than long-term mercury storage and the fee charged for that storage (and costs associated with it). The scoping provisions referred to above (and quoted below) bolster the conclusion that DOE has improperly segmented its NEPA compliance for establishing the long-term mercury storage facility:

To determine the scope of environmental impact statements, agencies shall consider:

(1) Actions (other than unconnected single actions) that may be connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

- (i) Automatically trigger other actions that may require environmental impact statements;
- (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously; or
- (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

13-7  
(cont)

40 C.F.R. § 1501.9(e). The rule's language clearly applies to DOE's establishment of a long-term mercury storage facility. DOE's need to promulgate a mercury storage fee flows directly from its statutory obligation to establish a long-term mercury storage facility. The requirement to select a DOE facility and the authority/requirement to charge a storage fee are established in the same section of the same statute: Section 5 of MEBA, codified at 42 U.S.C. § 6939f(a). If there is no mercury storage facility, DOE would not need a mercury storage fee. Each action is dependent on the other. *Blue Ocean Preservation Soc.*, 754 F. Supp. at 1450 (explaining agency had impermissibly segmented a four-phase project across multiple EISs because later phases depended on earlier ones, specifically deep-water cable research and construction could not occur without subsequent development of a geothermal power source).

## B. The DSEIS Must Take Costs of Storage into Account.

In its 2020 rewrite of NEPA implementing rules, CEQ added provisions that emphasize the role of economic analyses in NEPA compliance. Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43304 (July 16, 2020). 40 C.F.R. § 1501.2(b) as amended directs that agencies:

Identify environmental effects and values in adequate detail so the decision maker can appropriately consider such effects and values alongside economic and technical analyses. Whenever practicable, agencies shall review and publish environmental documents and appropriate analyses at the same time as other planning documents.

13-8

CEQ explained: “This change is consistent with section 102(2)(B) of NEPA, which directs agencies, in consultation with CEQ, to identify and develop methods and procedures to ensure environmental amenities and values are considered along with economic and technical considerations in decision making.” 85 Fed. Reg. at 43321. The rule requires not only that environmental and economic analyses be coordinated; it requires that they be reviewed and published *at the same time*, unless that is not practicable. DOE’s decision-making process does not meet this requirement. In the DSEIS, DOE evaluates environmental impacts without considering any economic factors that might advantage (or disadvantage) some alternatives over others. DOE likely will respond that costs will be considered later, during the procurement process, and/or perhaps in connection with the mercury storage fee rule that will be promulgated later. DOE’s neglect of costs in the DSEIS is inconsistent with the coordination requirements of 40 C.F.R. § 1501.2(b). DOE should coordinate its economic and environmental analyses of the proposed long-term mercury storage facility or explain why it is not practicable to do so. *City of Sausalito v. O’Neill*, 386 F.3d 1186, 1214 (9th Cir. 2004) (“While the [CEQ rules] do not provide a specific definition of ‘cost-benefit analysis,’ they make clear that such an analysis may be informal. . . . A ‘cost-benefit’ analysis under the [CEQ rules] consists of any analysis identifying and assessing the comparative benefits and/or costs of ‘environmentally different alternatives.’ To be subject to the [CEQ rules’s] disclosure requirements, the analysis must be “relevant to the choice” between these alternatives. The [CEQ rules] conclude: ‘In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which are likely to be relevant and important to a decision.’”) (citations omitted).

13-8  
(cont)

These deficiencies in DOE’s planning process are compounded by its exclusion of DOE-owned facilities from consideration in the DSEIS. DOE’s focus on only commercial storage means that a thorough and public-facing comparison of DOE and commercial storage costs will never happen. That is the case even if costs are considered later in the decision-making process, because the only facilities being considered are commercial. This is a fundamental flaw that can be remedied only by supplementing the DSEIS with DOE-owned alternatives, and by either (1) adding comparative information about costs to the revised DSEIS or (2) conducting a parallel economic analysis that can be reviewed and published simultaneously with the revised DSEIS.

The foregoing establishes that NEPA’s statutory language—bolstered by revisions to the implementing rules—requires DOE to coordinate environmental and economic analyses. Other revisions to the CEQ rules go further, confirming that in this case, the economic analysis of long-term mercury management must be addressed *as part of* NEPA compliance, not just in parallel with it. In its 2020 rewrite of the NEPA rules, CEQ brought economic concerns forward, both to emphasize the statute’s inclusion of economic values where appropriate and to clarify when economic factors must be a part of NEPA analysis. CEQ rules specify what should be included in discussions of environmental consequences, including, “[w]here applicable, economic and technical considerations.” 40 C.F.R. § 1502.16(a)(10). CEQ explained in the proposed rule preamble that this and other changes were made to “focus on those effects that are reasonably foreseeable and have a close causal relationship to the proposed action.” Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684, 1702 (January 10, 2020). CEQ continued: “To align with the statute, CEQ also proposes to add a new § 1502.16(a)(10) to provide that discussion of environmental

consequences should include, where applicable, economic and technical considerations consistent with section 102(2)(B) of NEPA. *Id.*

Subsection (b) of that rule elaborates:

Economic or social effects by themselves do not require preparation of an [EIS]. However, when the agency determines that economic or social and natural or physical environmental effects are interrelated, the [EIS] shall discuss and give appropriate consideration to these effects on the human environment.

40 C.F.R. § 1502.16(b). A version of this language was included previously in the regulatory definition of “human environment,” where it was often overlooked. *See* 40 C.F.R. § 1508.14 (2019). Moving the language was intended to indicate its importance, and it reconfirms that agencies *must* consider economics if they are interrelated with environmental considerations.

As NGM’s comments make clear, economic considerations are—or should be—prominent in this decision-making process, because costs will determine whether generators deliver mercury to DOE or manage it elsewhere. DOE should be comparing costs among commercial storage options, and also comparing costs of DOE storage, HWAD storage, and commercial storage. DOE’s analysis should take into account the current cost of mercury purification, the current cost of the Bethlehem/Stablex treatment/disposal option, the likely cost (to the extent it can be determined) of treatment and disposal at a permitted U.S. Ecology facility, and other economic considerations that might affect how much mercury DOE likely will store at its long-term mercury storage facility, and how much may be routed instead to Canada, or managed differently. All these factors illustrate graphically why economic effects are so bound up with the environmental analysis DOE must conduct to satisfy NEPA. Discussing alternatives without considering costs, and without comparing costs to other management options, does not meet the requirements of NEPA.

DOE did not consider costs in either the 2011 or 2013 NEPA documents evaluating long-term storage options. Commenters on the 2013 SEIS asked why costs were not considered. DOE responded that “a fee structure has not been determined; however, it is expected that it would be competitive with the costs of other mercury storage options.” DEP’T OF ENERGY, FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT: LONG-TERM MANAGEMENT AND STORAGE OF ELEMENTAL MERCURY, DOE/EIS-0423-S1, 1-3, 2-48, 2-56, 2-57. DOE offers no basis for this assumption. *See Hughes River Watershed Conservancy V. Glickman*, 81 F.3d 437 (4th Cir. 1996) (“Misleading economic assumptions can defeat the first function of an EIS by impairing the agency’s consideration of the adverse environmental effects of a proposed project.”).

DOE added that “much of the costs of mercury storage will be borne by the generators,” suggesting that DOE considers costs borne by generators as not relevant to government decision-making. *Id.* These responses utterly miss (or ignore) the importance of costs in this planning process. NGM by the way does not concede that generators’ costs are not the concern of the government. Although MEBA does not say explicitly that DOE must manage or minimize costs

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to generators, the entire statute is built around two related goals: removing mercury from international commerce to reduce global mercury pollution, and providing a safe storage alternative for U.S.-generated mercury that can no longer be sold abroad and that cannot be legally disposed in the U.S. H.R. Rep. No. 110-444 at 6 (Nov. 13, 2007) (“The purpose of H.R. 1534 is . . . to prohibit the export of elemental mercury beginning in 2010 to reduce global mercury pollution; and to provide a long-term management and storage option for elemental mercury generated by private sources, at a facility to be designated by the Secretary of Energy, by 2010.”).

Congressman Tom Allen of Maine, the author of the House bill that became MEBA, described how the mercury storage facility became a part of the legislation:

Together with my friend Mr. Shimkus at the full committee markup, I offered an amendment to create a long-term mercury storage repository. This amendment was the result of a stakeholder process over the last several months to develop a consensus product.

153 Cong. Rec. H13552 (daily ed. Nov. 13, 2007). Congressman Allen inserted into the record a letter from trade associations representing generators, describing the negotiation from their perspective:

[T]he Committee-reported version of [MEBA] establishes a practical and workable domestic framework for sequestering the elemental mercury prohibited from export under the legislation. To develop this framework, our organizations worked diligently and collectively to reach consensus, each of us agreeing not to raise related mercury matters which may have prevented a successful outcome. Therefore, we hope the full House of Representatives will acknowledge the compromises made and approve H.R. 1534 without further changes.

*Id.* Signers represented the American Chemistry Council, the National Mining Association, the Chlorine Institute, the Environmental Council of the States, and the Natural Resources Defense Council. About the facility, Congressman Allen noted: “The bill does not require that all excess mercury be transferred to DOE; rather, it gives the private sector the option of placing mercury into storage at DOE.” *Id.*

DOE’s selection of a storage facility (or facilities) will play a decisive role in the amount it charges for storage. In turn, DOE’s storage fee will directly impact NGM’s and other generators’ mercury management decisions. If DOE charges too much for mercury storage, NGM may choose Bethlehem/Stablex in the future (or other options as they become available) instead of delivering mercury to the DOE facility. The DSEIS does not acknowledge this possibility and its environmental consequences. The DSEIS addresses the Bethlehem/Stablex option only in the context of the No-Action alternative:

Historically, generators have not used this option on a large scale. Considering that the costs to generators for this option would not be reimbursed by DOE,

13-8  
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implementation of this option on a large scale is not likely and would be driven by economic considerations by the generators.

DSEIS at 4-2. This assumption by DOE is not entirely correct even in the context of the No-Action alternative. As noted above, NGM already has decided to send some currently generated mercury to Bethlehem/Stablex, even though it could have stored the mercury and been reimbursed (via credits) by DOE when the federal long-term storage facility finally opens. The DSEIS never reckons with the possibility that generators may choose Bethlehem/Stablex before the DOE facility opens, or *instead of* DOE long-term storage after the facility is operational. *See Morgan v. Walter*, 728 F. Supp. 1483, 1493 (D. Id. 1989) (finding U.S. Army Corp of Engineers was required to consider impacts of private fish propagation facility prior to issuing permit for water diversion project because the projects were ‘links in the same bit of chain’).

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(cont)

An issue not discussed in the DSEIS, but likely key or even determinative for generators, is the cost of mercury purification.<sup>5</sup> Currently, DOE’s Waste Acceptance Criteria require that mercury delivered for long-term storage be purified to a level of 99.5%. As DOE is aware, Bethlehem Apparatus is the only U.S. facility currently purifying elemental mercury. The cost of purification is significant. Generators may opt for the Bethlehem/Stablex option to avoid purification, transportation, and storage costs. Depending on DOE’s decision and its costs, it is possible that the only mercury DOE will receive for long-term storage is mercury already in temporary storage and therefore required by MEBA to be delivered to DOE. *See* 42 U.S.C. §§ 6939f(g)(2)(B), 6939f(g)(2)(D).

Costs will be one of the most important factors in how and where U.S.-generated elemental mercury is managed, and how much of it is managed by DOE at its MEBA-mandated facility. Compliance with NEPA cannot be accomplished in this EIS without analysis of costs and the environmental impacts related to them. *See Native Village of Point Hope v. Jewell*, 77 Env’t Rep. Cas. (BNA) 1961, 44 Env’t. L. Rep. 20016, 2014 U.S. App. LEXIS 1150 (9th Cir. Jan. 22, 2014), corrected, 740 F.3d 489, 2014 U.S. App. LEXIS 1222 (9th Cir. 2014) (rejecting EIS for failure to consider economic factors, including environmental impacts of potential variations in oil prices).

### C. DOE Should Have Conducted a Scoping Process.

13-9

DOE and CEQ NEPA regulations (the latter are adopted by reference into DOE regulations) do not require scoping for a supplemental EIS. 10 C.F.R. § 1021.311(f); 40 C.F.R. § 1502.9(c)(4); *see also* Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury, 86 Fed. Reg. 27838, 27840 (May 24, 2021) (“[A] public scoping process is not required for a DOE-issued SEIS.”). However, DOE in its discretion *may* conduct supplemental scoping, and “shall as appropriate employ scoping . . . and other methods . . . to avoid duplication and delay.” 40 C.F.R. § 1502.4(b). Doing so in this case would have allowed DOE to hear concerns about the scope of

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<sup>5</sup> These comments are based on the currently applicable DOE Waste Acceptance Criteria, updated in 2018.

the EIS from NGM, other generators, and communities before it took the consequential step of writing and issuing a draft EIS. A 30-day scoping period would not have resulted in significant delay, and likely would have revealed our and others' concerns so that DOE could address them in its decision-making about the scope of this EIS.<sup>6</sup> We note that when DOE decided in 2013 to supplement its original 2011 EIS to consider three sites in New Mexico, it specified a 30-day scoping period, and held two public scoping meetings in the region where the new alternatives were located. Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury, 77 Fed. Reg. 33204 (June 5, 2012).<sup>7</sup>

Ten years have passed since this most recent scoping effort. Since then:

- (1) Congress amended MEBA (2016);
- (2) DOE issued a NEPA Supplement Analysis (2019);
- (3) DOE issued a ROD selecting WCS (2019);
- (4) DOE promulgated a mercury storage fee rule (2019);
- (5) A federal court vacated the mercury storage fee rule (2020);
- (6) DOE withdrew its selection of Waste Control Specialists, and amended the ROD to select Waste Control Specialists to receive mercury to which DOE is accepting title (2020);
- (7) DOE published another amended ROD withdrawing the decision to store mercury at Waste Control Specialists (2022); and
- (8) DOE issued a NEPA Interim Action Determination addressing DOE's pending selection of another facility to receive mercury to which DOE is accepting title (2022).

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(cont)

The 2013 SEIS was an extension of, and not a significant departure from, the 2011 EIS. In contrast, this DSEIS takes a very different approach, examining only existing facilities, focusing principally on commercial facilities, and entirely excluding DOE-owned facilities from consideration, all justified by the need and desire of DOE to act quickly. This fundamental departure from past analyses should have been scoped with public input.

Among other things, a scoping process would have allowed DOE to explain in more detail how and when it plans to apply NEPA analysis to each of the steps of its decision process: (1) selection of a facility; (2) determination of a mercury storage fee; (3) procurement; and (4) treatment and disposal. As it stands, the DSEIS says only that "any NEPA analysis" for the mercury fee rule will occur at a later time. DSEIS at 1-2, n.1. In 2019, DOE asserted that the 2011 EIS and the 2013 SEIS satisfied its NEPA obligations for the mercury storage fee rule, even though those NEPA documents do not contain any information about costs. *See* 84 Fed.

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<sup>6</sup> *See* 40 C.F.R. § 1500.4(i) ("Agencies shall reduce excessive paperwork by: . . . [u]sing the scoping process, not only to identify significant environmental issues deserving of study, but also to deemphasize insignificant issues, narrowing the scope of the environmental impacts statement process accordingly.").

<sup>7</sup> DOE apparently believed it was required to provide scoping for a supplemental EIS. *See* 2013 SEIS at 1-7 ("As a preliminary step in the development of an EIS (or SEIS), regulations established by [CEQ] and DOE require 'an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a Proposed Action.'").

Reg. 53066–67 (October 4, 2019) (proposed rule); Elemental Mercury Management and Storage Fees, 84 Fed. Reg. 70402, 70408 (December 23, 2019) (final rule).

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Further, about treatment and disposal, DOE notes that it “does not analyze [elemental mercury] treatment and disposal in this SEIS-II because the specifics of it are too speculative at this time.” DSEIS at 1-2, n.1. However, DOE also asserts that MEBA authorizes it to treat and dispose elemental mercury in long-term storage.<sup>8</sup> *Id.* And, although DOE also did not analyze treatment and disposal in the 2011 or 2013 NEPA documents, the single largest component of its 2019 mercury storage fee was the cost of treatment and disposal. *See* 84 Fed. Reg. at 53066–67 (October 4, 2019) (proposed rule); 84 Fed. Reg. at 70402–04 (final rule). In the 2019 mercury storage fee rule, DOE based its treatment/disposal fee component on Bethlehem/Stablex costs. 84 Fed. Reg. at 70402. If DOE has enough information about treatment and disposal to make it a component of a mercury storage fee charged to generators, then it arguably also has enough information to evaluate treatment and disposal, at least based on the information currently available. CEQ regulations explain how to address reasonably foreseeable impacts for which there is incomplete or unavailable information. 40 C.F.R. § 1502.21(c).<sup>9</sup> There should no longer be any doubt that a complete NEPA analysis of this project must include consideration of the environmental impacts of mercury storage, treatment, and disposal, associated costs, and likely mercury generator actions based on cost and other factors.

#### D. DOE’s Notice of Intent Should Have Invited Comment on Alternatives.

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Even without a new round of scoping, DOE could have and should have elicited important information from the public by requesting comment in its Notice of Intent to prepare the DSEIS. Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the Long-Term Management and Storage of Elemental Mercury, 86 Fed. Reg. 27838 (May 24, 2021). The new CEQ NEPA implementing rules, promulgated in 2020, require that the Notice of Intent include “[a] request for identification of potential alternatives, information, and analyses relevant to the proposed action.” 40 C.F.R. § 1501.9(d)(7). This requirement is separate from decisions and requirements about scoping. CEQ describes this requirement as intended to “ensure informed decision making and reduce delays.” 40 C.F.R. § 1500.3(b)(1). DOE acknowledges in the Notice of Intent that the new CEQ rules apply to its preparation of the DSEIS, but the Notice does not meet this new requirement. 86 Fed. Reg. at 27840. In this case, adding a request for comments could have served a similar purpose as scoping. And, since DOE published the Notice of Intent more than a year before it published the DSEIS, the agency would have had ample time to review comments and (if necessary) adjust its NEPA planning, without the delays that might have accompanied scoping.

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<sup>8</sup> Another generator, Coeur Rochester, Inc., has argued that DOE’s authority under MEBA is limited to storage, and that it has no authority to treat or dispose of the elemental mercury in its custody. *See* Mem. P. & A. Supp. Pl.’s Mot. Prelim. Inj., *Coeur Rochester, Inc. v. Brouillette*, No. 1:19-cv-3860-RJL (D.D.C. Dec. 31, 2019).

<sup>9</sup> Among the reasonable steps DOE could have taken were discussions with Bethlehem Apparatus and Stablex, conversations with U.S. Ecology, and inter- and intra-governmental contacts with Environment Canada and the U.S. EPA about treatment and disposal. There is no indication in the DSEIS that DOE made any of these inquiries.

## E. DOE's Purpose and Need Statement Skewed the Alternatives Analysis.

CEQ regulations require the EIS to “briefly specify the underlying purpose and need to which the Agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. § 1502.13. The “purpose and need” statement in the DSEIS summarizes MEBA, as amended, including the 2013 ban on exports and Congress’ direction to DOE to open a long-term mercury storage facility. However, it becomes clear that the real purpose and need in DOE’s reckoning is to establish the long-term mercury storage facility as soon as possible. DOE notes (without appropriate context) that the MEBA deadline to open the facility was January 1, 2019. DSEIS at 1-2–1-3. In fact, MEBA required DOE to designate a facility or facilities for long-term mercury storage by January 1, 2010. Pub. L. 110–414, § 5(a)(1), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)). The original MEBA deadline to *open* the facility was January 1, 2013. *Id.* § 5(a)(2), 122 Stat. at 4344. In 2016, frustrated by DOE’s inaction, Congress amended MEBA to impose the 2019 deadline DOE references. Pub. L. 114–182, § 10(c)(1), 130 Stat. 448, 478–79 (codified at 42 U.S.C. § 6939f(a)(2)). Anticipating that DOE might also miss that deadline, Congress set a penalty: DOE would be responsible for temporary storage costs incurred by generators because of DOE’s failure to open the facility. *Id.* § 10(c)(2), 130 Stat. at 479 (codified at 42 U.S.C. § 6939f(b)(1)(B)(iv)). Adding a belt to suspenders, Congress also directed that if DOE failed to open the facility by January 1, 2020, it would be required to accept title to any elemental mercury temporarily accumulated at generators’ facilities. *Id.* (codified at 42 U.S.C. § 6939f(b)(1)(C)).

13-11

All three statutory deadlines have come and gone, and DOE has not yet opened a long-term mercury storage facility. The accruing penalties—in the form of credits against future mercury storage fees—explain why DOE is considering how it might best open the facility without further delay. However, it must be said that DOE’s present time pressures arise from its own conduct, not from any emergency, external edict, or problem otherwise beyond its control. *See Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220 (10th Cir. 2002) (affirming unusual remedy of requiring an EIS and specific outcome because Fish and Wildlife Service’s essentially unexplained four-year delay in protecting a selected species had pushed the species to the verge of extinction). DOE’s failure to act is not by itself an appropriate purpose and need for the proposed action. The legitimate purpose and need for federal action here is Congress’ statutory directive to establish a long-term mercury storage facility at a “facility or facilities of the Department of Energy,” so that elemental mercury generated in the United States which can no longer be exported can be safely accumulated and stored in a central location.<sup>10</sup> The provision of government mercury storage was a key component of the compromise that resulted in MEBA, and that obtained the support of the mining industry and others. *See infra; Westlands Water Dist. v. U.S. Dep’t of Interior*, 376 F.3d 853, 866 (9th Cir. 2004) (“Where an action is taken pursuant to a specific statute, the statutory objectives of the project serve as a guide by which to determine the reasonableness of objectives outlined in an EIS.”)

To be sure, DOE acknowledges the statutory purposes, but in the selection of alternatives, it elevates its need to act quickly above all other considerations. DSEIS at 2-6–2-11. On this basis, DOE eliminated from consideration any alternative other than ones that could offer

<sup>10</sup> DOE’s assertion in the DSEIS (quoted above) that MEBA creates “schedule urgency” is inaccurate. *See* DSEIS at 2-34. The schedule urgency facing DOE is a self-created problem, not a dictate of MEBA.

existing facilities, satisfying DOE’s need to move with haste. DSEIS at 2-34. The result: seven commercial facilities, one Department of Defense facility, and zero facilities actually owned and operated by DOE.

13-11  
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In *Simmons v. United States Army Corps of Engineers*, the Court of Appeals for the Seventh Circuit concluded that the Corps’ purpose and need statement for a proposed reservoir was “so slender as to define competing ‘reasonable alternatives’ out of consideration (and even out of existence),” defeating the purpose of NEPA.” 120 F.3d 664, 666 (7th Cir. 1997). The project applicant in *Simmons* proposed a single reservoir to provide drinking water to two separate communities. The Corps’ EIS considered only single reservoir alternatives. “By focusing on the single source idea, the Corps never looked at an entire category of reasonable alternatives and thereby ruined its [EIS].” 120 F.3d at 670. Similarly, because DOE is anxious to open the long-term mercury facility as soon as possible, it eliminated an entire category of reasonable (and arguably mandatory) alternatives simply because they would require more time to establish.<sup>11</sup> DOE should revise the DSEIS and expand the alternatives analysis to include DOE-owned facilities.

#### F. DOE Improperly Constrained the Alternatives Analysis.

DOE’s focus on expediting the decision-making process impermissibly narrowed its consideration of alternatives. Of the DOE-owned facilities considered in the 2011 and 2013 EISs, DOE eliminated the DOE INL because it plans to “close the [Radioactive Waste Management] Complex once its current radioactive waste mission is completed, which is not expected for several years.” DSEIS at 2-7. The Bannister DOE site was eliminated because “portions” have been transferred to a private entity for residential redevelopment. *Id.* The DOE activities that were conducted at Bannister have been moved to the new Kansas City–National Security Campus (KCNSC). DOE Savannah River, DOE Hanford, DOE Grand Junction, and DOE WIPP (along with two WIPP-adjacent sites) were eliminated because they would require new construction. *Id.*

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DOE writes that it “reevaluated existing facilities on DOE property that could be repurposed for the management and storage of mercury.” DSEIS at 2-8. DOE’s inquiry included sending a May 3, 2021, memorandum to “other DOE offices and programs” asking for assistance in identifying DOE-owned facilities that could accommodate long-term mercury storage. DSEIS at 2-11; William I. White, Acting Assistant Secretary for Environmental Management, Memorandum for Distribution: Identification of Potential Long-Term Storage Facilities for Elemental Mercury, DSEIS Vol. 2 at 11–12 (May 3, 2021). The memorandum emphasized that DOE was inquiring only about “existing [DOE] facilities that are potentially available for the long-term storage of elemental (non-radioactive) mercury.” The memorandum included criteria the candidate facilities would have to meet, and it asked for responses by May 22, 2021.

DOE does not recount in the DSEIS what kinds of responses it received from DOE offices and programs but notes only that “[n]o additional facility alternatives were identified

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<sup>11</sup> See 40 C.F.R. § 1502.5 (“The [EIS] shall be prepared early enough so that it can serve as an important practical contribution to the decision-making process and will not be used to rationalize or justify decisions already made . . .”).

from this effort.” *Id.* Respectfully, it is difficult to believe that there is no DOE facility out of the approximately 30 facilities DOE owns (not including DOE offices or Oak Ridge) that could serve as the long-term mercury storage facility. Restricting the inquiry to existing facilities, imposing a short response window, and including a list of particular criteria that are unlikely to be found together at any one site, may have guaranteed the result: no DOE facilities were available.

CEQ NEPA rules provide that in ruling out further discussion of issues, “there should be only enough discussion to show why more study is not warranted.” 40 C.F.R. § 1502.2(b). DOE’s cryptic conclusion that “no additional facility alternatives were identified” does not meet even that flexible guideline. There is no information in the DSEIS about why DOE was unable to locate one site in its large complex of facilities that could serve the purposes of MEBA. Notably, DOE did not describe any responses it received to its May 3, 2021, memorandum, or detail any follow-up actions it took regarding responses, or efforts to press for responses where none were forthcoming. From the DSEIS, it appears that DOE’s entire effort consisted of sending a memorandum, requiring responses within a short turnaround time of two weeks, and deciding on the basis of those responses that no DOE facilities were suitable. The DSEIS creates the impression that DOE facilities were allowed to “volunteer” for the duty of hosting a long-term mercury storage facility, and if that is all that occurred, it is not surprising that no facility showed ability or interest.

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In contrast, in the DSEIS DOE recounts years of interacting with and exploring the capabilities of commercial entities to host a DOE long-term storage facility:

- **2016:** DOE consulted with facilities in 2016 who expressed interest in operating a long-term storage facility. DSEIS at 2-8.
- **2017-2018:** DOE conducted further outreach, inviting seven private facilities (DOE refers to them as “MEBA Permittees” because each one had certified to DOE earlier that it met MEBA requirements to conduct temporary storage) to participate in stakeholder consultation meetings. At the time, DOE determined that Bethlehem and Waste Management showed interest and had the capability to conduct long-term storage of mercury. DSEIS at 2-9.
- **2019:** DOE issued a Request for Task Proposal to WCS, who already had a basic ordering agreement (BOA) in place with DOE, requiring the company to submit a proposal for elemental mercury storage and long-term management, “because [DOE] has determined that WCS is the only BOA awardee capable of providing the required services at the level of quality required because the services ordered are unique or highly specialized.” Letter from Carin P. Boyd, DOE, to Matthew LaBarge, WCS (January 17, 2019).
- **2019:** DOE issued a ROD designating WCS as the DOE Long-Term Mercury Storage Facility. Record of Decision for the Long-Term Management and Storage of Elemental Mercury, 84 Fed. Reg. 66890 (December 6, 2010). DSEIS at 1-5.
- **2020:** After withdrawing the WCS ROD (*see* Amended Record of Decision for the Long-Term Management and Storage of Elemental Mercury, 85 Fed. Reg. 63105 (October 6, 2020)), DOE published a Sources Sought Synopsis/Request for Information seeking private interest in hosting the long-term mercury storage facility. DSEIS at 1-6. As a

result of this inquiry, DOE identified WCS (again) and Perma-Fix Environmental Services as commercial alternatives for long-term mercury storage. DSEIS at 2-9.

- **2020:** In December 2020, DOE entered into basic ordering agreements with five companies for nationwide waste management services (specifying potential long-term storage of elemental mercury as an ancillary service). DSEIS at 1-6, 2-10. Three responded that they had existing facilities at which long-term mercury storage could occur. DSEIS at 2-10.
- **2021:** DOE reached out again to the seven MEBA Permittees and determined based on responses that three companies—Bethlehem (one site), Veolia Environmental Services (one site), and Clean Harbors (three sites)—might be suitable hosts for the DOE Long-Term Mercury Storage Facility. *Id.*

When the two processes are compared—especially given the outcome: seven commercial alternatives and zero DOE facilities—it seems obvious that DOE has been focusing its resources and efforts on a commercial solution for long-term mercury storage, not on storage at a DOE-owned facility. This is contrary to the spirit—if not the letter—of DOE’s and CEQ’s NEPA implementing regulations. *See, e.g.*, 40 C.F.R. § 1502.2(f) (“Agencies shall not commit resources prejudicing selection of alternatives before making a final decision.”); 40 C.F.R. § 1502.2(g) (“Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.”); *see also* 10 C.F.R. § 1021.101 (“It is DOE’s policy to follow the letter and spirit of NEPA . . . .”); *see Alaska Survival v. Surface Transp. Bd.*, 705 F.3d 1073, 1084 (9th Cir. 2013) (“A purpose and need statement will fail if it unreasonably narrows the agency’s consideration of alternatives so that the outcome is preordained.”) (citation omitted).

It would have served DOE’s (and the public’s) needs better to consider a range of alternatives in the DSEIS that included DOE properties, commercial facilities, and HWAD. The distinctions between and among these kinds of alternatives—and their environmental impacts—undoubtedly extend well beyond how quickly they can be placed into service.

The only current alternative under consideration that is not a commercial facility is HWAD. HWAD could offer important transportation advantages because it is in northern Nevada, where most of the mercury to be stored at the long-term storage facility is generated.<sup>12</sup> The Defense Logistics Agency’s mercury stocks were consolidated at HWAD beginning in 2010. The site currently stores 4,436 metric tons of *product* elemental mercury. DSEIS at 3-9. As required by the Nevada Division of Environmental Protection, the mercury is being transferred from three-liter flasks into one-metric ton containers, an activity that began in 2014 and is expected to continue until 2036. DSEIS at 3-9 – 3-10. There is no history of spills or accidents during delivery of mercury to HWAD or during transfer operations. DSEIS at 3-11.

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<sup>12</sup> To meet DOE’s current Waste Acceptance Criteria, mercury generated in Nevada would first have to be transported to a facility where it can be purified to DOE’s standard of 99.5%, diminishing the location advantage of HWAD. *See* DEP’T OF ENERGY, Waste Acceptance Criteria for the Storage of Elemental Mercury at the U.S. Department of Energy Long-Term Elemental Mercury Storage Facility, DOE/EM-0007 (2018), 5, 10, 14, 18. HWAD’s location advantages would become much more significant if DOE modified the Waste Acceptance Criteria. *See* DSEIS at 2-4, n.4.

Based on previous preliminary analyses, HWAD also may be the most cost-effective storage option.<sup>13</sup> In 2008, as Congress was considering the legislation that became MEBA, the Congressional Budget Office estimated the cost of long-term mercury storage would be approximately \$6,600 per metric ton, based on mercury storage costs at Oak Ridge. CONG. BUDGET OFFICE, COST ESTIMATE: S. 906, MERCURY EXPORT BAN OF 2008 (September 10, 2008), 4. In a 2018 consultation with stakeholders, DOE reported that HWAD’s annual storage costs were approximately \$80 per metric ton. On that basis, industry (at DOE’s request) estimated that the fee for long-term storage at HWAD would be about \$7,750 per metric ton, a figure which included capital expenditures to prepare the HWAD buildings, storage costs of \$80 per metric ton per year for 40 years, and treatment and disposal costs to be incurred in year 41, at the cessation of storage. *See* MICHAEL S. GIANNOTTO AND STEVEN G. BARRINGER, POTENTIAL OPTIONS AND FEE STRUCTURE FOR THE LONG-TERM MANAGEMENT OF MEBA MERCURY BY THE DEPARTMENT OF ENERGY (August 29, 2018), 6–9 (attached as Appendix 1).

Despite HWAD’s significant potential advantages, DOE gives HWAD short shrift, for essentially the same reason that it eliminated DOE-owned facilities: leasing, RCRA permitting, and consultation with the Nevada State Historic Preservation Officer “could add significant time (*i.e., three years or more*) to the schedule for meeting DOE’s statutory obligation under MEBA.” DSEIS at 2-23 (emphasis added).<sup>14</sup>

DOE should not have excluded alternatives from consideration because they cannot meet a deadline that passed ten years ago (the original 2013 deadline), four years ago (the 2019 deadline), or three years ago (the 2020 deadline). By eliminating any alternative that would require new construction, and by deprioritizing HWAD because of permitting requirements, DOE has effectively and improperly constrained the analysis of alternatives to the seven commercial facilities addressed in the DSEIS. *Van Abbema v. Fornell*, 807 F.2d 633 (7th Cir. 1986) (rejecting Corps of Engineers EIS for failure to adequately evaluate economics of and alternatives to coal transloading facility); *see also Nat’l Parks & Conser. Ass’n v. BLM*, 586 F.3d 735 (9th Cir. 2009) (affirming NEPA challenges to Bureau of Land Management’s EIS because,

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<sup>13</sup> In 2008, as Congress was considering the legislation that became MEBA, the Congressional Budget Office estimated the cost of long-term mercury storage would be approximately \$6,600 per metric ton, based on mercury storage costs at Oak Ridge. CONG. BUDGET OFFICE, COST ESTIMATE: S. 906, MERCURY EXPORT BAN OF 2008 (September 10, 2008), 4. In 2018 consultation with stakeholders, DOE reported that HWAD’s annual storage costs were approximately \$80 per metric ton. On that basis, industry (at DOE’s request) estimated that the fee for long-term storage at HWAD would be about \$7,750 per metric ton, a figure which included capital expenditures to prepare the HWAD buildings, storage costs of \$80 per metric ton per year for 40 years, and treatment and disposal costs to be incurred in year 41, at the cessation of storage. *See* MICHAEL S. GIANNOTTO AND STEVEN G. BARRINGER, POTENTIAL OPTIONS AND FEE STRUCTURE FOR THE LONG-TERM MANAGEMENT OF MEBA MERCURY BY THE DEPARTMENT OF ENERGY (August 29, 2018), 6–9 (attached as Appendix 1).

<sup>14</sup> Compare with DOE’s rationale for excluding any alternative that would require new construction:

New construction would add *at least three years*, when compared to using existing facilities, negatively impacting the statutorily imposed schedule for DOE’s receipt of elemental mercury and potentially subjecting DOE to additional liabilities under 42 U.S.C. § 6939f(b)(1)(B). Because these would be contrary to the purpose and need for this action, alternatives that required the construction of new facilities were thus dismissed from further analysis in this SEIS-II.

DSEIS at 2-35 (emphasis added).

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although it had a mix of private and public objectives, the purpose and need statement was “so narrowly drawn as to foreordain approval” of its selected action).

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It is fair to say that NGM has a greater and more direct interest than any other mercury generator in seeing the long-term mercury storage facility opened as soon as possible. NGM also agrees that the ability to open quickly is one factor that to be considered in the alternatives analysis. However, eliminating alternatives altogether from consideration on this basis goes too far. It elevates DOE’s need to hurry (a problem of its own making) above all other purposes and considerations for the action. It predetermines the outcome of the decision-making process and deprives reviewers of a thorough NEPA analysis.

#### G. MEBA Requires Long-Term Mercury Storage at a “Facility (or Facilities) of the Department of Energy.”

The omission of DOE-owned or -operated facilities is especially problematic because MEBA explicitly directs DOE to 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 the Department of Energy, for the purpose of long-term management and storage of elemental mercury generated within the United States.” Pub. L. 110-414, § 5(a)(1), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)). DOE reads this language to include commercial facilities that it does not own, if DOE has “an appropriate level of responsibility and control over the facility.” DSEIS at 1-2. DOE continues:

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Although the phrase “facility or facilities of [DOE]” is not defined in MEBA, DOE has a longstanding practice in various other contexts of leasing facilities to accomplish the Department’s core mission. Consistent with that practice, DOE construes the term facility of DOE to include a facility leased from a commercial entity or another Federal agency, over which DOE provides an appropriate level of oversight and guidance.

*Id.* On the contrary, the language of MEBA is unambiguous, and therefore not available for DOE to interpret. *Digital Realty Trust, Inc. v. Somers*, 138 S.Ct. 767, 777 (2018); *Chevron U.S.A. v. Nat. Res. Def. Council, Inc., et al.*, 467 U.S. 837 (1984). DOE’s longstanding practice notwithstanding, the agency has not cited any other instance in which Congress explicitly directed it to designate “a facility or facilities of the Department of Energy” where a commercial facility lease was deemed to be consistent with congressional intent. If the practice is common, as DOE insists, DOE should be able to offer some examples that corroborate its interpretation.

There are also clues in other MEBA language, and in the Senate and House committee reports accompanying the legislation, that Congress meant exactly what it said. For instance, the statutory language specifies that DOE cannot designate the “Y-12 National Security Complex or any other portion or *facility* of the Oak Ridge Reservation of the Department of Energy.” Pub. L. 110-414, § 5(a)(1), 122 Stat. at 4344 (codified at 42 U.S.C. § 6939f(a)(1)) (emphasis added). This language supports the conclusion that when Congress said “facility or facilities of [DOE], it meant a facility owned and operated by DOE. *See Powerex Corp. v. Reliant Energy Serv. ’s*, 551

U.S. 224, 232 (2007) (“A standard principle of statutory construction provides that identical words and phrases within the same statute should normally be given the same meaning.”).

Senator Lamar Alexander (R-TN) added minority views to the report of the Senate Environment and Public Works Committee on S. 906 (the bill that became MEBA). Senator Alexander observed:

Although [Oak Ridge] isn’t mentioned by name in S. 906, it’s clear to everyone who has studied this issue—including the Congressional Budget Office (CBO)—that the bill as currently written would send the nation’s mercury there.

S. Rep. No. 110-477, at 15 (Sept. 22, 2008). His mention of CBO refers to that office’s estimate of projected costs of MEBA—also summarized in the House and Senate committee reports—which assumed that mercury storage would occur at Oak Ridge and based its economic analysis on that assumption. *Id.* at 12. CBO made that assumption, widely shared by bill sponsors and stakeholders, because DOE has stored 1,200 tons of its own mercury at Oak Ridge for decades. *See, e.g.*, 153 Cong. Rec. H13553 (daily ed. Nov. 13, 2007) (statement by Rep. Wamp (R-TN)) (“... I think the likely place that this mercury is going to come is to my district, Oak Ridge, Tennessee. Everybody within DOE and the NNSA, the National Nuclear Security Administration, expects this mercury to come to the Y-12 National Security Complex.”) In the end, to gain Senator Alexander’s support, the legislation had to be amended to say explicitly that DOE could not designate the Oak Ridge facility. Though Oak Ridge was excluded, the context illuminates what Congress had in mind: long-term storage at a facility owned by DOE. The Senate Committee Report goes further:

The Federal Government has already proven that it can store mercury for long periods of time. Federal surplus mercury is currently stored in a number of different locations. The Department of Defense, which holds more than 4,000 metric tons, manages its own stockpiles. The Department of Energy, which holds more than 1,300 metric tons, also manages its stockpiles.

S. Rep. No. 110-477 at 9; *see also* H.R. Rep. No. 110-444, at 8 (November 13, 2007) (“The Committee received testimony and information from officials at the Department of Energy that storage of elemental mercury began at its facility in Oak Ridge, Tennessee in 1963 and that there is no history of a flask that has leaked.”). This background makes clear that Congress directed DOE to accept elemental mercury for long-term storage because the Agency already had a successful track record of storing its own mercury *at its own facility*, not in the custody of a contractor.

The statute is clear. Even if it were not clear, and DOE had room to interpret, DOE’s interpretation is inconsistent with Congress’ clear intent. In view of the unambiguous statutory language, and in the light of this legislative history, DOE’s decision in the DSEIS to exclude consideration of storage at any of its own facilities should be re-examined.

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## H. The DSEIS Should Address the Extra-Territorial Impacts of DOE's Proposed Action.

Environmental impacts that occur outside the United States as a result of DOE actions must be considered in a NEPA analysis. 10 C.F.R. §1021.102(b). This requirement is based on Executive Order 12114, issued in 1979, which emphasizes that U.S. officials taking such actions should “be informed of pertinent environmental considerations and [should] take such considerations into account, with other pertinent considerations of national policy.” Exec. Order No. 12114, § 1-1, 44 Fed. Reg. 1957 (January 4, 1979). The actions triggering NEPA compliance include “major Federal actions significantly affecting the environment of a foreign nation not participating with the United States and not otherwise involved in the action.” *Id.* § 2-3(b). This rule clearly applies to the environmental impacts that may result from increased mercury disposal in Canada, a foreseeable result of DOE’s No-Action alternative as well as its Proposed Action.<sup>15</sup> See *Gov’t of Man. v. Salazar*, 691 F. Supp. 2d 37, 51 (D.D.C. 2010) (In requiring government to consider impacts of transfer of biota from water basin, the court noted that, although “NEPA does ‘not require assessment of environmental impacts within the territory of a foreign country,’ . . . the CEQ ‘has determined that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States.’”) (citing CEQ Guidance on NEPA Analyses for Transboundary Impacts (July 1, 1997)).

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As noted above, the DSEIS does address whether generators might use the Bethlehem/Stablex treatment/disposal option, but only in the context of the No-Action alternative. DSEIS at 2-32, 2-33, 2-39, 3-61, 4-2–4-9. The analysis is perfunctory, possibly because generators have not used the Bethlehem/Stablex option on a large scale thus far, and DOE assumes that will continue to be the case. See DSEIS at 2-33, 4-2, 4-8. Given NGM’s current plans to use the Bethlehem/Stablex option for currently-generated mercury, and the potential for a significant increase in shipments to Canada depending on the cost to store at DOE’s long-term facility when it opens, NGM believes DOE must revisit the issue of disposal in Canada and address it more detail. To be clear, Bethlehem/Stablex is not NGM’s preferred alternative. The shipments are possible because of a 1986 bilateral treaty between the U.S. and Canada allowing cross-border shipments of hazardous and solid wastes between the two nations. However, the shipments require export permits, notifications, and other administrative steps that make the process cumbersome and add layers of time and expense. See *Sierra Club v. Marsh*, 744 F. Supp. 352, 354 (D. Me. 1989) (“NEPA regulations require that an EIS discuss both the direct and indirect (or secondary) impacts of a proposed project. Indirect impacts are those ‘caused by the action [that] are later in time or farther removed in distance [than the direct impacts], but are still reasonably foreseeable.’”) (citing 40 C.F.R. § 1502.16).

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<sup>15</sup> The Executive Order also requires NEPA evaluation of extraterritorial effects when the federal action provides “[a] product, or physical project producing a principal product or an emission or effluent, which is prohibited or strictly regulated” in the U.S. because of its toxicity. Executive Order 12114, § 22-3(c); see also COUNCIL ON ENVTL. QUALITY, *Memorandum for Heads of Agencies with International Activities* (February 27, 1979), available at 44 Fed. Reg. 18722 (March 21, 1979); DEP’T OF ENERGY, *Guidelines for Implementation of Executive Order 12114 – Environmental Effects Abroad of Major Federal Actions* (December 18, 1980), § 4.3, available at 46 Fed. Reg. 1007 (January 5, 1981). While this provision is not directly applicable to DOE’s Proposed Action, it expresses a policy concern that should be addressed in the DSEIS: disposal of U.S. mercury in Canada

DOE makes unsupported assumptions and conclusions in the DSEIS about potential disposal in Canada. For instance, about land use and ownership, DOE concludes that Bethlehem/Stablex would not result in impacts at the generator site. DSEIS at 4-3. In fact, generators who ship to Bethlehem/Stablex rather than holding mercury in temporary storage would need significantly less RCRA-compliant storage space, which in turn would require fewer inspections and less RCRA compliance generally. DOE's conclusion of no land use impacts for the treatment and disposal facilities (because the facilities are already permitted), *id.*, does not take into account the possibility that significantly increased use of Bethlehem/Stablex could result in expansions for those facilities, which would require additional permitting in the U.S. and Canada. DOE did not consider the existing capacity of Bethlehem or Stablex to treat and dispose of the increased flows of elemental mercury that may result.

Similarly, less temporary storage at generator sites could mean fewer potential impacts to geologic or soil resources, and greater impacts on these resources at Bethlehem and Stablex. DSEIS at 4-4. Contrary to DOE's conclusion, significantly increased shipments of mercury could result in expansion or new construction at Bethlehem/Stablex. *Id.* As far as can be determined from the DSEIS, DOE also did not contact U.S. Ecology to inquire about its current and future capacity to receive U.S.-treated mercury sulfide. Accordingly, DOE's conclusion that treatment/disposal would not result in greater impacts at those facilities is premature. It appears that DOE did interact in some measure with Bethlehem, but only in regard to its existing ability to serve as the DOE long-term mercury storage facility, not about its capacity to convert elemental mercury to mercury sulfide, or, for that matter, about the duration and stability of its contractual arrangements with Stablex.

The analysis of impacts to water and air resources is similarly constrained. DSEIS at 4-5. In this section, DOE notes that "the potential impacts of transportation of mercury and the potential risks to waterbodies and ecological receptors would be similar to that described for the Proposed Action." *Id.* DOE does not take into account that as a result of the Proposed Action, transportation (and related impacts) could be moved from the U.S. into Canada. Canada could go from very little mercury transportation based on current use of the facility to shipment of hundreds of metric tons per year of U.S. mercury sulfide. The proper analysis should focus on the shift of mercury management from one country to another, rather than just the rearrangement of similar impacts in different locations. Also, the potential impacts of transportation to Canada would be different from transportation within the U.S. because shipments to a DOE long-term storage facility or purification plant would be of liquid elemental mercury, while shipments from Bethlehem to Stablex in Canada would be of solid mercury sulfide.

Potential impacts to air resources would change, at least in extent, at generator, treatment, and disposal facilities. Shipments to Bethlehem following by shipments to Stablex in Canada would require significantly more transportation over longer distances, increasing greenhouse gas and other emissions, impacts the DSEIS does not address or foresee. And DOE's No Action or Proposed Action alternatives could move a significant portion of these potential impacts from the U.S. to Canada, a consideration that DOE does not take into account at all when it notes that the disposal facility is permitted and therefore increased shipments to it would not result in impacts. *Id.*; see also DSEIS at 4-6 (transportation impacts to ecological resources); 4-7 (impacts to cultural or paleontological resources); 4-21 (normal operations risks).

13-14  
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DOE assumes, apparently without checking, that site infrastructure at Bethlehem and Stablex would not be affected because those facilities “would be managing mercury treatment and disposal within their expected permit conditions and expected operating parameters.” DSEIS at 4-7. This conclusion may well be accurate in the short term but does not take into account the possibility that existing capacity at these facilities may not be sufficient to handle the increased mercury treatment and disposal that may result based on DOE’s Proposed Action or its No-Action alternatives. Similarly, DOE assumes without evident basis that Bethlehem and Stablex could handle larger amounts of mercury without facility and landfill expansions and permit modifications. DSEIS at 4-7–4-8.

In addition to these specific analytic deficiencies, the DSEIS analysis does not address the larger concern that DOE’s Proposed Action or No Action alternatives could result in the bulk of U.S. elemental mercury being managed in Canada rather than at a facility of the Department of Energy in the United States. That outcome has implications for the United States’ relationship with Canada and could be seen to be inconsistent with congressional intention in enacting MEBA. These considerations should be recognized and considered in the DSEIS.

### III. Conclusions

NGM is cognizant of DOE’s need and goal to site the long-term mercury storage facility as quickly as possible so it can meet the requirements of MEBA. The investment of time and effort is significant, and we understand that it diverts resources from other worthy DOE projects. NGM would like to work with DOE to facilitate and expedite the decision-making process. NGM does not want to make the process more difficult or to extend it longer than is necessary. We recognize that the project is complex. However, as detailed above, NGM believes DOE has not fully and effectively considered how to make the decisions, what factors it should take into consideration, or how to properly accomplish its NEPA compliance. At a minimum, the DSEIS must be supplemented to address economics, and to compare DOE-owned storage alternatives with commercial facilities so that the decision properly takes into account costs and their resulting impacts on generator decision-making and on the environment.

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**POTENTIAL OPTIONS AND FEE STRUCTURES FOR THE  
LONG-TERM MANAGEMENT OF MEBA  
MERCURY BY THE DEPARTMENT OF ENERGY**

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**I. INTRODUCTION**

The Mercury Export Ban Act of 2008 (“MEBA”), as amended by the Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act (the “Lautenberg Act”), directs the Department of Energy (“DOE”) to establish and operate a facility or facilities “for the purpose of long-term management and storage of elemental mercury generated within the United States.” 42 U.S.C. § 6939f(a)(1). Pursuant to the Lautenberg Act, the facility or facilities must be operational by January 1, 2019. 42 U.S.C. § 6939f(a)(2). MEBA, as amended by the Lautenberg Act, also requires that DOE, after consultation with persons who are likely to deliver elemental mercury to the DOE facility, assess a one-time fee to be charged to mercury generators for shipments of mercury to the DOE facility. DOE must make the amount of such fee “publicly available” no later than October 1, 2018. 42 U.S.C. § 6939f(b)(1)(B). That fee must be based on the “*pro rata cost*” to DOE of managing the mercury. 42 U.S.C. § 6939f(b)(1)(A). While DOE does not expect to have a MEBA facility operational by January 1, 2019, it is seeking to meet the October 1, 2018 deadline for publishing fee information, and is working currently to determine the costs it anticipates incurring to provide for the long-term management of mercury required by MEBA.

To that end, over the past several months, and most recently on August 1 and 2, 2018, DOE officials have met with representatives of the mining industry and other stakeholders to discuss possible options for the MEBA facility, and potential fee structures that could apply with respect to each such option. The purpose of this memorandum is to summarize the various options that were discussed by DOE and the mining companies at their most recent meetings in August 2018, and to assess the viability and likely cost of each option.

Five options were discussed at the August 2018 meetings:

- (1) **Hawthorne.** Use by DOE of the mercury management facilities currently available at the Department of Defense (“DOD”) facility in Hawthorne, Nevada;
- (2) **Bethlehem/Stablex.** DOE arrangement with Bethlehem Apparatus Company, Inc. (“Bethlehem Apparatus”) for treatment of MEBA mercury at Bethlehem Apparatus’ Pennsylvania facilities and shipment of the treatment residues to Stablex (a subsidiary of U.S. Ecology, Inc.) for land disposal in Quebec, Canada;
- (3) **DOE/Bethlehem/U.S. Ecology.** Storage of MEBA mercury by DOE for a relatively short period of time while Bethlehem Apparatus/U.S. Ecology petition EPA for a no-migration variance or a treatability variance from the Resource Conservation and Recovery Act (“RCRA”) land disposal restrictions (“LDRs”), and, upon grant of a variance, shipment of the mercury to Bethlehem Apparatus/U.S. Ecology for treatment and land disposal in the Western United States;
- (4) **Indefinite Commercial Storage.** Indefinite storage of MEBA mercury by DOE for between 40 and 1,000 years at a privately-owned and operated RCRA-permitted storage facility, followed by treatment and disposal of the mercury; and
- (5) **Indefinite DOE Storage.** Indefinite storage of MEBA mercury by DOE for between 40 and 1,000 years at a facility constructed, owned, and operated by DOE, followed by treatment and disposal of mercury.

Below, we describe in more detail each of these options, and their merits and possible shortcomings. We also discuss an appropriate fee structure that could be applied to each option. The discussion here should not be understood by DOE as agreement by the mining companies that any particular option complies with MEBA requirements; nor should DOE interpret the

mining companies' discussion of these options as an endorsement of DOE's view that it may choose any or all of these options, regardless of their costs. Rather, as we discuss, we believe that DOE must, consistent with MEBA, choose the lowest-cost option that will allow the safe management of mercury, so long as that option is feasible.

Our analysis shows that, when properly calculated, the costs of Options 2 through 5 vary from approximately \$16,000 to \$32,000 per metric ton for storage or treatment/disposal at a privately-owned and -operated facility and from approximately \$6,672 to \$12,020 per metric ton for long-term storage at a DOE-owned facility. Based on publicly available information and projections from information provided by DOE at the August 2018 meetings regarding DOD costs at Hawthorne, we estimate costs of Option 1 (Hawthorne) – from \$2,914 to \$7,750 per metric ton – that are substantially lower than those of Options 2 through 5. We therefore submit that, if at all possible, DOE must utilize Option 1.

## **II. GENERAL CONSIDERATIONS**

At the industry/DOE meetings on August 1 and 2, 2018, the participants discussed various considerations that should inform the option that should be chosen by DOE. Those considerations are:

(1) **Safety.** Any option(s) chosen by DOE must ensure that the elemental mercury DOE accepts can be safely managed, so as to preclude undue risks to human health or the environment. While all of the options discussed at the August meetings would meet basic safety considerations, certain options are arguably “safer” than others. For instance, an option that requires mining companies in Nevada to ship their mercury across the country on public roads and rails is inherently less safe than requiring the mercury only to be transported a very short distance (for instance, to Hawthorne, Nevada). In addition, an option that requires mercury

management at a facility actually owned and operated by the U.S. Government (such as Hawthorne or a DOE-owned and -operated facility) is arguably safer than management at a privately-owned facility because the U.S. Government can be depended upon to have reliable resources to quickly respond to and remediate any spill or other emergency situation, without the necessity of obtaining and maintaining expensive and cumbersome financial assurance instruments. Finally, an option that results in effective treatment of the mercury – to make it more stable and less likely to be released to the environment – is preferable to an option that relies solely on long-term, indefinite storage. Indeed, the entire rationale for the land disposal restrictions added to RCRA in 1984 is that waste treatment, and then ultimate disposal of the treated waste, is preferable to indefinite storage. To that end, the LDR provisions of RCRA specifically preclude the storage of a hazardous waste, except to accumulate sufficient quantities for proper recovery, treatment or disposal. *See* 42 U.S.C. § 6924(j); 40 C.F.R. § 268.50.

(2) **Lowest Cost.** While MEBA, as amended by the Lautenberg Act, does not expressly state that DOE must choose the lowest cost option, selection of the lowest-cost feasible alternative was the intent of Congress and is implicit in the law. As discussed in the August 2018 meetings, the mining industry supported the MEBA export ban, even though industry knew that the ban inevitably would result in increased costs for industry to manage mercury as a waste, because industry accepted and agreed that an export ban was good policy for the United States. More practically, the mining companies also supported MEBA because it mandated (1) that DOE must open a mercury management facility by January 1, 2013 (the effective date of the export ban) and (2) that DOE must follow an administrative process to establish a reasonable and affordable fee structure based on the *pro rata* costs of establishing and operating the facility. Given that 11 years have elapsed since the enactment of MEBA in 2008 without DOE’s vigorous

pursuit of an appropriate option, the mining companies believe strongly that it would be inconsistent with MEBA and the Lautenberg Act for DOE to choose a more expensive option now only because it can be more quickly implemented than reasonable and affordable lower-cost and safer alternatives.

At the time of MEBA's enactment, the Congressional Budget Office ("CBO") estimated that the one-time long-term management fee for mercury shipped to the MEBA facility would be approximately \$6,600 per metric ton. *See* CBO Cost Estimates for H.R. 1534 (Nov. 9, 2007) and S. 906 (Sept. 10, 2008). DOE's preliminary cost estimate provided at the August 2018 meetings – from \$125,000 to \$250,000 per ton – is more than an order of magnitude greater than the CBO figure, suggesting that DOE must at least examine the discrepancy, reconsider its approach and make reasonable adjustments in its methodology.

The companies submit that DOE should not select an option for the long-term management of MEBA mercury that will result in a fee significantly greater than \$6,600 per metric ton, and certainly DOE must, in any event, select the lowest-cost option that is both safe and practical. We also urge that DOE not eschew reasonable, lower cost options (such as the Hawthorne option) because they may take more time to implement than the highest cost options (such as indefinite storage at a private RCRA permitted facility). DOE has acknowledged that it cannot have a facility on-line by the January 1, 2019 date set forth in MEBA, and that it is aiming to have a facility operational by January 1, 2020. That should provide sufficient time to implement all options discussed in this paper.

In addition, and as we discuss in later sections of this memorandum, we do not believe that it is appropriate for DOE to base its fee structure on "worst-case scenarios" that would have no – or only a very slight – chance of materializing over the next 40 or 100 or 1,000 years, as

appears to be the case with the indefinite storage option that was presented by DOE at the August 2018 meetings (Option 4 discussed below). Rather, the fees should be based on reasonable assumptions, *i.e.*, what reasonably may be forecasted to occur in the coming years. As discussed at the August 2018 meetings, in the unlikely event that DOE's assumptions in setting a fee structure result in inadequate revenue during early years of operation of the DOE facility, MEBA allows DOE to raise the fee for later-delivered mercury to make up for the shortfall. 42 U.S.C. § 6939f(b)(1)(b)(ii). Conversely, if DOE charges too much in early years due to "worst-case" assumptions that do not (and very likely will not) materialize, there is no basis under MEBA for the mining companies to recoup the excess fees paid.

(3) **Feasibility.** Obviously, to be selected as an option by DOE, the option must be feasible. Among other things, any option must ensure that the MEBA facility will have adequate capacity to store, or treat and/or dispose, all MEBA mercury. We note in this regard that MEBA does not require DOE to utilize only one option for all MEBA mercury. MEBA makes plain that DOE shall designate "a facility or facilities" for the long-term management and storage of elemental mercury generated within the United States. 42 U.S.C. § 6939f(a)(1). DOE is not limited to managing mercury it receives at only one particular facility or in one particular way.

In addition, if DOE chooses an option involving treatment and disposal of the mercury in the United States, it must have some reasonable basis for predicting when treatment and disposal in the United States will become legal. We discuss these and other "practicality" issues below when we focus on each of the five management options.

### III. EVALUATION OF OPTIONS AND FEE STRUCTURES

#### Option 1. LONG-TERM STORAGE OF MEBA MERCURY AT THE DOD FACILITY IN HAWTHORNE, NEVADA (HAWTHORNE).

MEBA mercury generated in the United States (or at least the mercury generated in the State of Nevada) would be sent for long-term storage to the mercury management facility currently owned and operated by the Department of Defense in Hawthorne, Nevada. Both industry and DOE spoke favorably about this option at the August 2018 meetings, assuming that DOD would in fact allow use of the Hawthorne facility for the management of MEBA mercury. The Hawthorne facility has an excellent track record of safely storing large quantities of mercury without any mishaps.<sup>1</sup> Because the facility is owned and operated by the U.S., there is the added safety factor that, were any mishaps to occur, the U.S. would have the resources to promptly respond. Finally, because the facility is located in relative proximity to the Nevada mines that generate most of the MEBA mercury, transport distances may be relatively short, and the chances of any mishap in transit would be reduced considerably compared to transit across the country to, *e.g.*, Alabama or Pennsylvania.<sup>2</sup>

Based upon discussions at the August 2018 meetings, it also appears that the Hawthorne facility has substantial excess capacity and would be able to handle all of the MEBA mercury that is currently in interim storage, and mercury that would be generated in the future.<sup>3</sup>

Moreover, the marginal cost of managing MEBA mercury at this facility would be small, as

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<sup>1</sup> See DOE, Final Environmental Impact Statement: Long-Term Management and Storage of Elemental Mercury, DOE/EIS-0423, January 2011 (the “FEIS”) at 2-16.

<sup>2</sup> DOE has stated that it will only take elemental mercury of 99.5% or greater purity at the MEBA facility. Therefore, even if Hawthorne became the MEBA facility, it might be necessary for Nevada mining companies to send some of their mercury to a non-Nevada location for purification prior to shipment of mercury to the MEBA facility.

<sup>3</sup> As set forth in the FEIS, DOE could designate up to 29 currently unused buildings in the Central Magazine Area at Hawthorne for DOE mercury storage. This would provide approximately 27,000 square meters (290,000 square feet) of space for DOE storage of mercury. FEIS at 2-16.

there would be no need to construct new facilities, or to impose new safety regulations upon the existing facility. The likely marginal cost would be limited to the capital costs of modifying some existing buildings,<sup>4</sup> the annual costs of hiring a few additional persons to oversee the DOE portion of the facility, and some incidental operating costs such as electricity, mercury monitors, periodic maintenance, and the like.<sup>5</sup>

There was no discussion at the August meetings of an appropriate fee structure for this option. DOE did note during those meetings, however, that DOD currently incurs annual mercury storage costs at Hawthorne of approximately \$80 per metric ton. Assuming that the costs to DOE for use of Hawthorne would be comparable to DOD's current costs, industry believes that the one-time fee for long-term storage of mercury at Hawthorne would, at the very most, be around \$7,750 per metric ton.<sup>6</sup> This estimate is based on the following assumptions:

- Storage of 10,000 metric tons of mercury for 40 years, as set forth by DOE in its Final Environmental Impact Statement;
- \$2 million in capital expenditures in Year One;
- Storage costs of \$80 per metric ton per year for 40 years;
- Treatment and land disposal in Year 41, at \$26,400 per metric ton (as estimated by DOE for Option 4);
- A discount rate of 3.7225% (as discussed further in Option 4 below).

This \$7,750 figure is significantly closer to the CBO's estimate of \$6,600 per metric ton than to DOE's current estimate for long-term storage.

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<sup>4</sup> According to DOE's FEIS, the only modifications to the existing buildings that might be required prior to DOE storage of mercury would be reinforcing and epoxy-sealing floors; installing spill control measures, utilities, and security monitors; and servicing the rail spur. FEIS at 2-16.

<sup>5</sup> While DOE would need to obtain a RCRA permit for its portion of the Hawthorne facility, the costs of permitting cannot be factored into the fees charged to mercury generators. 42 U.S.C. § 6939f(b)(1)(C)(ii).

<sup>6</sup> It is likely that DOE mercury storage would be somewhat more expensive than storage of commodity mercury presently managed at Hawthorne. At a minimum, the DOE mercury must comply with RCRA regulatory requirements, which are not applicable to DOD's mercury. Our cost estimate relies on known cost data. We recognize that a more detailed cost estimate will need to address additional costs attributable to RCRA compliance and potentially other factors.

If instead of the 3.7225% discount rate stated above, one utilizes the 7% discount rate deemed appropriate by EPA in 2007 and by DOE official Mr. Frank Marcinowski in 2015 when estimating the costs of long-term storage at a DOE-owned and -operated facility (see discussion of Option 5 below), the costs of Option 1 would be \$2,914 per metric ton.

To date, DOE has not engaged in advanced discussions with DOD to assess the viability of this option.<sup>7</sup> Given the location, safety, convenience, and cost benefits of using Hawthorne, the mining companies believe DOE must pursue this option vigorously, including, if necessary, contacts with upper level officials at DOD. The mining companies offered to use their resources and contacts to assist DOE in this endeavor.

**Option 2. TREATMENT AT BETHLEHEM APPARATUS' EXISTING PENNSYLVANIA FACILITY AND LAND DISPOSAL AT STABLEX IN QUEBEC, CANADA (BETHLEHEM/STABLEX).**

Under this option, MEBA mercury would be sent by DOE to Bethlehem Apparatus for treatment at its Heller, Pennsylvania facility, followed by land disposal at Stablex (a subsidiary of U.S. Ecology) in Quebec, Canada. Bethlehem Apparatus has all permits needed to conduct this treatment, and those processes have been deemed sufficiently successful that the government of Quebec allows the waste residues to be land disposed in the province. Based on discussions at the August 2018 meetings, we understand that Bethlehem Apparatus has the capacity to store 2,800 metric tons of mercury awaiting treatment, and therefore would have the capacity to take all MEBA mercury currently being stored on a temporary basis, and any mercury generated in the future. Treating and disposing the mercury – rather than merely indefinitely storing it –

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<sup>7</sup> Under 10 U.S.C. § 2692, DOD is prohibited from using a DOD installation for the storage, treatment, or disposal of any toxic or hazardous material that is not owned either by DOD or by a member of the armed forces. Therefore, to store mercury at the Hawthorne facility, the Secretary of Defense must grant an exception from this requirement, or DOD must lease or transfer an appropriate portion of the Hawthorne facility to DOE or the General Services Administration.

would be safer, since the threat of harmful releases of mercury to the environment and human exposure threats would be significantly reduced, if not eliminated.

Bethlehem Apparatus currently charges from \$10 to \$12 per pound (or \$22,000 to \$26,400 per metric ton) to treat the mercury, transport mercury residues to Canada, and have the residues land disposed at Stablex's Quebec facility. While this figure is significantly higher than the \$6,600 per metric ton estimated by the CBO in 2007, and the \$2,914 to \$7,750 per metric ton estimate for Hawthorne presented above, it is still an order of magnitude lower than the high end of DOE's preliminary cost estimate of \$250,000 per metric ton for indefinite storage (see further discussion below of Option 4).

There are certain potential drawbacks to the Bethlehem/Stablex option. First, we understand from the August meetings that Bethlehem Apparatus does not currently have the capacity to treat the volume of MEBA mercury that is held in interim storage. However, if Bethlehem Apparatus was guaranteed a set quantity of mercury per year, meeting participants were optimistic that Bethlehem Apparatus would be able to increase its treatment capacity and handle all accumulated mercury within a reasonable time, and in fact, it may also be able to reduce its per-ton costs. And, as noted above, Bethlehem Apparatus has ample capacity to store the mercury while it is awaiting treatment. Under normal circumstances, storage of such a large amount of elemental mercury could run afoul of the prohibition in the RCRA LDRs on storage of hazardous wastes; however, MEBA explicitly excepts the designated DOE facility from the RCRA storage prohibition. 42 U.S.C. § 6924(j)(storage prohibition); § 6939f(g)(2)(A) (exception from storage prohibition for DOE long-term storage facility).

Second, Bethlehem Apparatus currently has limited financial assurance, likely not adequate to cover the scale of activity involved in functioning as DOE's designated MEBA

facility. However, as also discussed at the August meetings, DOE could insist on adequate third-party financial assurance (such as a bond or insurance policy) as part of the contractual arrangement that would be necessary to properly designate Bethlehem Apparatus as the DOE MEBA facility.

A third stated drawback to this option is that it might place Bethlehem Apparatus in a monopoly position, with the ability to raise prices in the future in an arbitrary manner. However, the mining industry does not view this as a reasonable scenario. The fee-setting provisions of MEBA place limits of reasonableness on DOE's arrangements for long-term storage and management of mercury. While a "monopoly" position on treatment might give Bethlehem Apparatus some power to raise fees, we believe that any facility properly designated under MEBA – whether operated by DOE or privately under contract with DOE – would be constrained by the need under federal law to determine fees in an administrative process that is subject to public scrutiny and judicial review. Neither Bethlehem Apparatus nor any other private concern would be able to set or increase these fees indiscriminately.

Further, as a practical matter, DOE is not required under MEBA to select only one facility for management of MEBA mercury. Therefore, if DOE was not able to negotiate reasonable (*e.g.*, three- to five-year) contract conditions with Bethlehem Apparatus, it could decide not to use this option, or it could use this option for a limited time, or for a limited amount of the mercury, and utilize long-term storage at another facility for the remainder. This fact alone contravenes the idea that Bethlehem Apparatus would have real or sustained monopoly power over pricing. Bethlehem Apparatus would realize that DOE could send its mercury elsewhere for management (such as to a DOE-constructed and -operated facility or to Hawthorne), and it would be unlikely to be able to raise fees arbitrarily.

The most significant potential roadblock to the Bethlehem/Stablex option, communicated by DOE at the August 2018 meetings, is the policy concern about sending mercury treatment residues for land disposal in a foreign country. DOE is sensitive to the “optics,” and believes that a large and persistent stream of treated mercury from the United States could cause Quebec to reconsider its current position on such shipments to Stablex. We recognize this is a possibility. However, the United States and Canada have in place a longstanding bilateral agreement allowing each country to receive hazardous waste (for treatment and/or disposal) from the other. We believe that Canadian authorities would not cut off shipments to Stablex without significant prior consideration, and consultation with the United States.

Also, as discussed above, even were Quebec to withdraw its consent to Stablex disposal in the future, DOE could turn to other options. Finally, there is every reason to expect that further management options not considered here will become available to DOE (and to mercury generators) in the course of time. Mercury treatment technologies comparable to the one Bethlehem Apparatus employs are already in use in other countries, and there is no reason such technologies could not be offered domestically in the future, along with disposal alternatives (those depending primarily on the timing of EPA regulatory action on an LDR treatment standard and/or a variance petition). In sum, legitimate concern about how Quebec might react in the future should not disqualify the Bethlehem/Stablex option from consideration now.

Industry believes that DOE needs to do much more due diligence on the Bethlehem Apparatus facility to determine whether it can increase its treatment capacity to handle sufficient mercury, whether it will agree to charge \$10 to \$12 per pound to treat and ultimately dispose of mercury for an initial time frame (for instance, three to five years), and whether Bethlehem Apparatus has adequate safety precautions in place and adequate financial assurance. But

assuming that the DOE can be satisfied on these fronts, the industry submits that the \$22,000 to \$26,400 per metric ton to be charged by Bethlehem Apparatus, while still too high compared to CBOs estimate of \$6,600 per metric ton or the \$2,914 to \$7,750 per metric ton that we estimate would likely be charged under the Hawthorne option, is much preferable to – and much more supportable than – the fee structure DOE has proposed informally for indefinite storage at a privately-operated RCRA facility.

**Option 3. TEMPORARY STORAGE, TREATMENT AT A BETHLEHEM APPARATUS FACILITY (EITHER IN PENNSYLVANIA OR IN THE WESTERN UNITED STATES), AND LAND DISPOSAL AT A U.S. ECOLOGY FACILITY IN THE WESTERN UNITED STATES (DOE/BETHLEHEM/U.S. ECOLOGY).**

The viability of the DOE/Bethlehem/US Ecology option depends on the outcome of actions underway presently by Bethlehem Apparatus and U.S. Ecology to petition EPA for a treatability variance under 40 C.F.R. § 268.44 or a no migration variance under 40 C.F.R § 268.6. Such a variance would allow land disposal of Bethlehem Apparatus-treated mercury residuals at a U.S. Ecology disposal facility to be located in Nevada or elsewhere in the western U.S. If EPA granted the variance, and allowed land disposal of treated mercury in the U.S., this option would be very similar – in terms of its pros and cons – to Option 2 above. As with Option 2, this option would be safer than indefinite storage, because the mercury would be treated so as to lessen, if not eliminate, the threats of human exposure and of releases to the environment. The treatment and disposal methods would be approved by EPA, which imposes exacting standards. U.S. Ecology, to be permitted as a U.S. disposal facility, would have to satisfy RCRA financial assurance requirements.

Further, assuming Bethlehem Apparatus and U.S. Ecology located a treatment facility near the disposal facility in the western United States, this option would significantly reduce the

risk of transportation-related accidents because the treatment/disposal facilities would be located nearer to Nevada, and thus Nevada mercury would have to be shipped much shorter distances than would be the case if the mercury had to be shipped to Bethlehem Apparatus' Pennsylvania facilities. This option would also eliminate the policy concerns about disposal in Canada. In these respects, it is far superior to the Bethlehem/Stablex option.

There should be no question of capacity to handle MEBA mercury, as Bethlehem Apparatus and U.S. Ecology would be seeking a RCRA variance specifically to be able to handle MEBA mercury. The issue of capacity would be addressed in the EPA petition process. Bethlehem Apparatus has informed DOE that it and U.S. Ecology would expect to charge from \$10 to \$12 per pound (\$22,000 to \$26,400 per metric ton) to treat and land dispose the mercury.

The main drawback of this option is that the timing and outcome of EPA action on a variance petition cannot be determined now. Our understanding, based on discussions at the August 2018 meetings, is that Bethlehem Apparatus/U.S. Ecology have not yet formally applied for a variance, but that they are in discussions with EPA and intend to apply shortly. The mining industry representatives at the meeting indicated that they would be willing – if Bethlehem Apparatus and U.S. Ecology were amenable – to assist in the preparation of any petition and in working with EPA officials to facilitate their consideration of the petition. We assume – as a matter of intra-agency comity – that EPA also would be responsive to DOE's efforts on this score.

As part of our analysis, we reviewed *Federal Register* notices for all known treatability variances and no-migration variances under 40 C.F.R. 268.44 or 268.6 either granted or denied by EPA over the past three decades. Our review revealed that the average time between submission of a petition and the resulting EPA decision is less than two years (approximately 19

months).<sup>8</sup> *See* Exhibit A to this Paper. The longest any petition took to review was 48 months, and median review time was 17 months. Based on this research, it is reasonable and conservative to conclude that EPA could consider and grant a variance from RCRA land disposal restrictions within three years. As noted above in Part II, if that proves to be optimistic, DOE has the ability to pursue other options, and/or to adjust the fee structure.

Based on a three-year time horizon, the cost of this option (in addition to the \$22,000 to \$26,400 per metric ton fee that would be charged by Bethlehem Apparatus/U.S. Ecology once authorization was granted by EPA) might have to be increased by the cost of three years of mercury storage pending EPA authorization.<sup>9</sup> At our meetings, DOE and industry agreed that current privately-owned and permitted RCRA facilities are charging mining companies \$1,200 per metric ton annually for temporary mercury storage. Therefore, were DOE to store the mercury for three years at such facilities and then send it to Bethlehem Apparatus/U.S. Ecology, an additional \$3,600 or so would have to be added to the total price of managing each metric ton of mercury.<sup>10</sup> On the other hand, there is no requirement that DOE store the mercury during this period. Instead, DOE could utilize the Bethlehem/Stablex option, as discussed above. That would involve the same \$22,000 to \$26,400 per metric ton treatment and disposal cost. As such, there would be no need to charge an additional \$3,600 for storage during the three-year period prior to EPA's granting of the U.S. Ecology variance.

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<sup>8</sup> The average is 15 months for treatability variances and 32 months for migration variances.

<sup>9</sup> Since DOE has acknowledged that no option would be operational before January 1, 2020, one of the three years for awaiting an EPA ruling will have elapsed before DOE begins to manage MEBA mercury. We assume an additional year to construct the facility or facilities.

<sup>10</sup> This figure has not been discounted to present value because the three-year time frame is fairly short. However, if one were to use the 3.7225% discount rate discussed in connection with Option 4 below, this \$3,600 figure would be reduced to \$3,348.

Another theoretical drawback of this option is that Bethlehem Apparatus and U.S. Ecology might have a monopoly position on treatment and disposal, and could use that power to raise prices unreasonably. As discussed above, there are various constraints on DOE and on any facility it may designate as DOE's MEBA management facility. Fees for any storage or management solution selected by DOE must be consistent with the requirements of MEBA, and those fees must be determined by DOE in an administrative process that will be open to public scrutiny and reviewable in federal court. Also, other options remain available to DOE, and additional management options will become available in the future. As with the Bethlehem/Stablex option discussed above, we believe there are sufficient constraints on the ability of Bethlehem Apparatus and U.S. Ecology to take unreasonable advantage of an agreement to function "as a facility" of the Department of Energy.

**Option 4. INDEFINITE STORAGE AT ONE OR MORE PRIVATELY-OWNED AND -OPERATED RCRA-PERMITTED FACILITIES FOR A MINIMUM OF 40 YEARS AND A MAXIMUM OF 1,000 YEARS, FOLLOWED BY TREATMENT AND DISPOSAL (INDEFINITE STORAGE/COMMERCIAL).**

DOE posited this as its "preferred" option prior to the August 2018 meetings. MEBA mercury would be stored indefinitely at a privately-owned RCRA-permitted facility for a minimum of 40 years and perhaps as long as 1,000 years, and then would be treated and land disposed (presumably because by then EPA will have authorized treatment and disposal of mercury under RCRA). The cost of this option therefore would include all the costs of Options 2 or 3 above, plus storage ranging from 40 to 1,000 years.

The advantages of this proposal are that: (a) capacity would likely not be an issue (because DOE could presumably contract with a sufficient number of private RCRA-permitted facilities to ensure that there is adequate capacity); (b) there would be no need to depend upon

EPA authorization of an LDR variance in the short term; and (c) there would be no need to address monopoly concerns.

On the other hand, this option is considerably less safe than Options 2 or 3, since indefinite long-term storage of mercury, particularly at multiple private facilities, carries with it a greater risk of releases to the environment – over a much longer period of time – than treatment and disposal. In addition, this option – as envisioned by DOE – is extraordinarily costly, primarily because it is based on the worst-case assumption that permissible treatment and disposal technology will not be available until at least 40 years into the future, and potentially not until 1,000 years into the future. As we discuss below, this 40 to 1,000 year time horizon, when coupled with the unrealistic discount rate of 0.6% (or 1.2%) proffered by DOE in its preliminary fee estimate, leads to costs of up to \$250,000 per metric ton for long-term management of mercury – a figure that is an order of magnitude greater than the cost of Options 1, 2 or 3 above, and the \$6,600 per metric ton estimated by CBO in 2007.<sup>11</sup>

Given the amount of mercury currently in temporary storage (which DOE estimates at 400 metric tons), charging a one-time fee of \$250,000 per metric ton would require mining companies to immediately pay a fee of \$100 million to DOE during the first year that the MEBA facility became operational. That does not include the cost of mercury generated in the future. As a practical matter, mining companies will not be able to pay the kinds of fees DOE is suggesting. As we explain above, DOE always has the ability under MEBA to reconsider and make upward

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<sup>11</sup> Based on its assumptions (including use of a 0.6% discount rate), DOE determined that the one-time fee, if 40 years of storage are assumed followed by treatment/disposal, would be about \$74,000 per metric ton; if 100 years of storage were assumed, the one-time fee would be \$127,000 per metric ton; and if 1,000 years of storage were required, the one-time fee would be \$249,000 per metric ton. If instead one uses the current “five year rolling average” discount rate of 1.2%, the one-time fee per metric ton for 40 years of storage (followed by treatment/disposal) would be \$63,600; the one-time fee for 100 years of storage would be \$95,000 per metric ton; and the one-time fee for 1,000 years of storage would be \$125,000 per metric ton – still unacceptably high.

adjustments in mercury storage/management fees, but there is no mechanism to refund excessive fees should DOE's assumptions prove to be unrealistic.

As DOE knows, mercury generation by the companies is not optional, and not amenable to source reduction efforts. Rather, it is an inevitable consequence of successful exploitation of gold and silver deposits that contain naturally-occurring mercury minerals. The DOE facility contemplated in MEBA is intended to be a reasonable accommodation for generators who can no longer sell their mercury because of the export ban. Accordingly, the fees should be reasonable, not punitive.

In order to calculate what we believe to be a more realistic fee structure for the long-term storage option, we must address the four variables utilized by DOE in its calculation: (a) length of storage; (b) cost of annual storage in 2018 dollars; (c) cost of treatment/disposal after storage for 40 to 1,000 years; and (d) a reasonable discount rate.

(a) Length of Storage

We cannot find any warrant for DOE's notion that the mercury will need to be stored for 1,000 years, or even 100 years, or even 41 years. The EIS prepared by DOE presumes that up to 10,000 metric tons of mercury will need to be stored for 40 years. It would make no sense for DOE to assume a 40-year storage period for purposes of assessing the environmental impacts of its facility, but then assume 1,000 years, or 100 years, or anything more than 40 years for cost purposes. Using DOE's own reasoning and assumptions, the facility will exist for 40 years, and at that point the mercury will be treated and land disposed in accordance with then-authorized and available technology.

At the time MEBA was under consideration in Congress, EPA published an estimate of the cost of indefinite mercury storage at a privately owned and operated facility. It too utilized a 40-year time horizon for the required storage facility, and assumed that up to 10,000 metric tons

of mercury would be stored there. *See* EPA, Mercury Storage Cost Estimates: Final Report, Nov. 6, 2007, p. 1. Similarly, as reported by Newmont representatives at the August 2018 meetings, in February 2015 Mr. Frank Marcinowski, who was then the DOE official overseeing the establishment and operation of the DOE MEBA facility, utilized a 40-year time horizon when estimating the costs that would be incurred in designing, constructing, and managing a DOE-owned facility.

The mining companies consider even 40 years of storage to be unrealistic, but given DOE's own past use of that number, it must at the very least be deemed an upper limit on the length of storage contemplated in any fee calculation. Anything more than 40 years is a worst-case scenario that will burden mining companies with unnecessary costs that will never be incurred by DOE. MEBA requires DOE to make judgments and use reasonableness as guides in setting fees for long-term mercury management. There is nothing in the statute that would support charging for a worst-case scenario.

(b) Annual Costs of Storage in 2018 Dollars

In calculating the one-time fee per metric ton of mercury, DOE assumes a current yearly storage cost at a privately-owned RCRA facility, in 2018 dollars, of \$1,500 per metric ton of mercury. At the August 1-2 meetings, after discussion of this figure, the participants reached consensus that the \$1,500 annual figure should be reduced to \$1,200, since that is what the mining companies are now paying to store their MEBA mercury in Alabama.

(c) Separate Consideration of Costs of Treatment/Disposal Following Long-Term Storage

The fee for the DOE indefinite storage option is increased by the costs for treatment and disposal of the mercury after 40 (or 100 or 1,000) years of storage. But there is no reason to believe that it will take 40 years before appropriate treatment/disposal technology is available

and approved by the EPA. Even if EPA cannot be prevailed upon to develop an LDR treatment standard for elemental mercury, it will soon be in receipt of a petition to grant a variance from the land disposal restrictions. All available evidence suggests that EPA will act on such a petition within a two-year time frame. Meanwhile, treatment technologies other than the one to be featured in the Bethlehem/U.S. Ecology petition are already in use in other countries, and new technologies will continue to appear. Either the technology will be available well before 40 years (in which case the storage component of the calculation is overestimated) or it will never be available (in which case the treatment/disposal component is moot).

(d) Discount Rate

The present value of the costs calculated by DOE for its indefinite storage scenario is also based on an unrealistic discount rate. In its preliminary calculations, DOE has utilized a rate of 0.6%, which is the 2018 “Real Treasury Interest Rate” contained in Circular A-94 published by the Office of Management and the Budget (“OMB”) for 30-year projects. As was pointed out in our August 2018 meetings, and as DOE did not dispute, the “Real Treasury Interest Rates” contained in Circular A-94 are not meant to apply in this type of situation. Rather, these interest rates apply when agencies need to compare the costs and benefits of two or more competing scenarios, and the costs that will be incurred or benefits obtained in each scenario will vary in different years, so that the Agency needs to reduce costs and benefits to a common plane. Circular A-94 specifically does not apply to a situation where a course of action has been chosen (such as indefinite storage) and DOE, or any other government agency, is attempting to determine the present value of a payment that will need to be made in Year One to cover all costs incurred over time.

Nevertheless, and as the mining companies acknowledged in the August 2018 meetings, DOE is required to invest any monies it receives from these one-time fees only in securities of

the United States government. DOE cannot, absent legislation, invest those monies in stocks or bonds of public companies, or even securities of State and local government agencies. Thus, in determining returns that can be obtained by investing funds received through one-time payments by mercury generators, DOE must look to the rates of return from 30-year Treasuries. Moreover, since there may be inflation over the long run, the rate of inflation has to be subtracted from the rate of return that can be obtained on these Treasuries. To summarize, while Circular A-94 is not strictly applicable here, it is not unreasonable to use as a guide in further deliberations.

The problem remains, however, that DOE has assumed that the “Real Treasury Interest Rate” (*i.e.*, the rate that can be obtained today on a 30-year Treasury minus the assumed rate of inflation) will remain constant at 0.6% over the next 40 to 100 years, because that is the rate stated in Circular A-94 for 2018. As DOE acknowledged at the August 2018 meetings, “Real Treasury Interest Rates” published in Circular A-94 have varied markedly over the last 40 years, equaling, for instance, 7.9% in 1982 and 7.4 % in 1985. The last five years have been years of historically low interest rates, and accordingly have resulted in the lowest five “Real Treasury Interest Rates” calculated under Circular A-94 over the past 40 years, with 0.6% being the single lowest rate in the last 40 years. Even using an average of the last 5 years (which results in a rate of 1.22%) greatly understates the manner in which these rates will vary over the next 40 (or 100 or 1,000 years), because, as noted, the last five years have been the lowest interest rate years in the past 40 years. If, instead, for instance, DOE had used a five-year average not of the past five years, but of the period 1979 to 1983, the discount rate would be 5.48%.

In contrast to DOE’s suggestion, EPA – when calculating in 2007 the costs of 40 years of storage of mercury at a government-owned and -operated facility – utilized a discount rate of 7%, and expressly stated that the 7% rate was appropriate given Circular A-94. *See* EPA,

Mercury Storage Cost Estimates: Final Report, Nov. 6, 2007, p. 16. DOE's Frank Marcinowski, when providing figures to be utilized by DOE in estimating the costs of a DOE facility in 2015, also used a 7% discount rate.

At our August 2018 meetings, the mining companies suggested that, if the 7% rate were not used, at the very least DOE should use the average "Real Treasury Interest Rate" over the past 40 years when discounting to present value the 40-year indefinite storage scenario (or even the 100 or 1,000 year scenario), rather than using the 2018 rate. The 40-year average rate is 3.7225%.<sup>12</sup>

Using a 40-year average makes sense because DOE will be receiving payments each year over the course of 40 years. It is not as if all of the payments will be coming to DOE in Year One, and therefore can only be invested at Treasury rates that exist in Year One. Indeed, even if the monies paid in Year One were invested at the rate then in existence, those securities could be sold, and other securities could be bought, if the interest rates rose. Using a 40-year average also means that if interest rates rise or fall over time (and it is extremely unlikely that they could ever fall below 0.6%), the fee charged by DOE would increase (or decrease) slowly from year-to-year, thereby allowing mining companies and other generators of mercury to plan and budget accordingly.

The mining companies therefore submit that at the very worst a discount rate of 3.7225% should be utilized here, although a 7% discount rate (as used by EPA in 2007 and as advocated by Mr. Marcinowski in 2015) is more reasonable. As we discuss below, if a 3.7225% discount rate is used, the difference in the present value of the cost of storage for 40 years and storage for 1,000 years is extremely small. If a discount rate of 7% is utilized, the difference is virtually nil.

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<sup>12</sup> This figure was calculated by averaging the 30-year Real Treasury Interest Rates published in Appendix C to Circular A-94 for the 40-year period from 1979 through 2018.

One further point with respect to discount rates deserves mention. DOE's proposed fee for 40 years (or up to 1,000 years) of storage at a private facility assumes that DOE would be making payments to the private facility each year, even though DOE would be receiving a one-time fee from the mercury generator. If, instead, DOE sought bids from a private facility based on payment of a one-time fee by DOE to the private facility for perpetual management of a metric ton of mercury, the private facility, in providing a bid to DOE, would be able to calculate its anticipated long-term costs and then discount to present value based upon assumptions as to rates of return it could earn by investing in public company stocks and bonds or any other investments it would wish to make. As a result, the ultimate fee would be much lower than would be obtained by DOE using a 0.6 % (or even a 3.7225%) discount rate and would likely be at or below a level obtained by using the 7% used by EPA in its calculations. Therefore, as discussed in the August 2018 meetings, if DOE decides to use storage in a private facility as its option, it should seek to obtain bids based both on payment of a yearly fee to the private facility, and based on a one-time payment to the facility for long-term management of a given batch of mercury.

(e) Recalculation Using Reasonable Assumptions

Using the 3.7225% discount rate discussed above, and substituting a 2018 annual cost of storage of \$1,200 per metric ton (rather than \$1,500 per metric ton), yields a total figure for 40-year storage followed by treatment and disposal of \$30,664 per metric ton. The comparable figures for 100 years (\$32,061 per metric ton) and 1,000 years (\$32,236 per metric ton) are not that much greater than the 40 year figure – due largely to the fact that a more realistic discount rate of 3.7225% is being utilized. If the treatment/disposal double-counting is removed, these figures fall to \$24,765 (for 40 years), \$31,403 (for 100 years) and \$32,236 (for 1,000 years). Note that these figures – while considerably more realistic and reasonable than those proffered

by DOE – are still unacceptably high, and considerably above the \$6,600 per metric ton calculated by the CBO in 2007, or the \$2,914 to \$7,750 per metric ton estimated for Hawthorne in Option 1 above.

Moreover, if instead of calculating present value based upon DOE yearly payments to a private facility, DOE were to negotiate a contract with a private facility where it paid the private facility a one-time figure for perpetual management of a given ton of mercury, the private facility would be able to determine the present value of its anticipated costs using a discount rate that takes into account the private facility's ability to invest in public company stocks and bonds and other securities, not purely U.S. government securities. In that scenario, an accurate discount rate is likely at or above 7%. If a 7% discount rate were utilized, as advocated by EPA in 2007 and Mr. Marcinowski in 2015, relevant figures for 40 years, 100 years, and 1,000 years of storage followed by treatment/disposal would be \$17,646, \$17,152 and \$17,143 per metric ton respectively. If the double-counting of treatment/disposal costs were eliminated, the figures would be \$15,998, \$17,123 and \$17,143 per metric ton.<sup>13</sup>

**Option 5. LONG-TERM STORAGE AT A DOE-OWNED AND -OPERATED FACILITY FOLLOWED BY TREATMENT/DISPOSAL (INDEFINITE STORAGE/DOE).**

Under this option, MEBA mercury would be stored for 40 to 1,000 years at a facility owned and operated by DOE, and then treated and disposed. The advantages of this option are similar to those of Option 4: (a) DOE can assure adequate capacity by constructing a sufficiently large facility; (b) DOE can assure responsible management of the mercury; and (c) there is no need to anticipate EPA approval of treatment/disposal in the U.S. in the near term. This option is

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<sup>13</sup> In these estimates, total costs decrease with longer time periods because the net present value of treatment/disposal costs approaches zero as the number of years increases. For the same reason, elimination of the double-counting of treatment/disposal costs has little impact on the costs after 100 years, and no impact after 1,000 years.

also safer than Option 4 because the mercury will be managed by DOE, and the facility will therefore have direct access to the resources of the federal government to respond to any mishaps that might occur. Also, if the DOE facility is sited in the western U.S., Nevada mercury will have to be shipped shorter distances than will be the case if DOE utilizes privately-owned facilities in Alabama or elsewhere.

The one-time fee structure for this option was not discussed at the August 1-2 meetings. However, to estimate the costs that DOE would incur under this option, and the fees it should charge per ton of mercury, reference can be made to two prior cost estimates prepared by government personnel.

(a) EPA 2007 Figures

As previously noted, EPA attempted in 2007 to provide a range of cost estimates to construct and operate a government-owned facility for long-term mercury storage.<sup>14</sup> EPA considered a myriad of costs including land purchase, permitting costs, mercury preparation and packaging, transportation to the facility, facility operation and maintenance, and facility closure. The EPA report evaluates costs for storage of 10,000 metric tons of mercury over a 40 year period – the same time period and the same quantity of mercury that is the subject of DOE’s EIS evaluating MEBA facility options. EPA concluded that the net present value of the cost per metric ton over a 40-year period at a government-owned and operated facility would range from \$9,152 to \$10,912. *See* EPA, Mercury Storage Costs Estimates: Final Report (Nov. 6, 2007) p. 19, Exhibit 8. However, the EPA analysis included items that cannot or will not be relevant to a DOE-owned facility (such as permitting costs prohibited from consideration under MEBA, EIS preparation cost, and the cost of mercury preparation and transportation, the last of which will be

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<sup>14</sup> EPA, Mercury Storage Costs Estimates: Final Report (Nov. 6, 2007).

borne by the mercury generator, not DOE). If these costs were removed from EPA's estimate, the cost per metric ton would be reduced to substantially less than \$9,152 to \$10,912 per metric ton.

(b) Marcinowski 2015 Figures

On February 27, 2015, Mr. Marcinowski of DOE met in San Francisco with representatives of Newmont, Barrick, the Nevada Mining Association, and the State of Nevada to discuss DOE's then-current estimate of construction and operation costs for a DOE-owned MEBA facility. Mr. Marcinowski stated then that DOE's cost estimate to design and build the facility was approximately \$27 million to \$33.5 million and that its estimate to operate the facility was \$1.5 million for the first year. (At our August 2018 meetings, DOE indicated that those costs remained fairly accurate.) Mr. Marcinowski also concluded that a 7% discount rate should be utilized in determining the present value of future costs. If one assumes construction costs in the middle of Mr. Marcinowski's range (*i.e.*, \$30.25 million), and that the first year of operating costs will apply to all years (*i.e.*, \$60 million for 40 years), the total cost to construct and operate the facility for 40 years would be \$90.25 million in current dollars. Using the 7% discount rate utilized by EPA in its 2007 study and by Mr. Marcinowski, the net present value of EPA's estimate to construct and operate the facility for 40 years is about \$50.25 million. Dividing this sum by 10,000 metric tons would result in average construction and operation costs of approximately \$5,025 per metric ton of mercury. Adding DOE's estimate of \$26,400 per metric ton for treatment/disposal in year 41 (also discounted at 7%), the resulting total cost of construction, operation and treatment/disposal is \$6,672 per metric ton. This figure is in line with the original CBO estimate of \$6,600 per metric ton, and is of the same order of magnitude as EPA's estimate discussed above.

If instead one uses the 3.7225% discount rate discussed in Option 4 above, the present value of construction and operation costs would be \$61.2 million. Dividing this sum by 10,000 metric tons would result in an average construction and operation cost of approximately \$6,120 per metric ton of mercury. Adding DOE's estimate of \$26,400 per metric ton for treatment/disposal in year 41 (discounted at 3.7225%), the resulting total cost of construction, operation and treatment/disposal is \$12,020 per metric ton. Option 5 is therefore preferable to Options 2, 3, or 4, and second in preference to Option 1.

#### **IV. CONCLUSION**

There are at least five options currently being discussed for DOE's long-term management of MEBA mercury. All of the options have different advantages and drawbacks, including cost. DOE's initial preferred alternative (indefinite storage at a privately-owned facility for 40 to 1,000 years, followed by treatment and disposal) is the most expensive and least safe of the options, and based on unrealistic, worst-case assumptions for discount rates, yearly storage costs, and time of storage.

The best alternative, as we believe DOE would agree, is use of the DOD Hawthorne facility, which we estimate would cost on the order of \$2,914 to \$7,750 per metric ton. As noted earlier, the mining companies are willing and ready to assist DOE in working with DOD to allow storage of MEBA mercury at the DOD facility. Such storage would be the least costly alternative, would be by far the most efficient use of existing federal government resources, and would be the safest for the environment. We urge that DOE therefore vigorously pursue this option, even though it may not be implementable by January 1, 2019 – a deadline that DOE has already made plain that it cannot meet for any option.

If Hawthorne is not available, and the indefinite storage option is considered, its cost must be properly calculated, using appropriate discount rates and reasonable assumptions. Doing

so would result in a per metric ton figure on the order of between \$16,000 (using a 7% discount rate with no double counting) and \$25,000 (using a 3.7225% discount rate and no double counting) if a private facility is utilized. If at a DOE-owned and -operated facility is utilized, the cost would be in the range of \$6,672 to \$12,020 per metric ton.

The mining companies are also willing and ready to assist DOE and Bethlehem Apparatus/U.S. Ecology in getting approval from EPA for a no-migration variance or treatability variance so that MEBA mercury may be treated and disposed of in the U.S. This solution would result in a per metric ton cost of approximately \$22,000 to \$26,400. These projected costs are high, and are difficult to reconcile with previous cost estimates by CBO, EPA and even by DOE, but they are at least significantly lower than the indefinite storage scenario proffered by DOE at the August 2018 meetings.

We hope that this analysis is helpful to the Department of Energy, and look forward to working further with DOE and coming up with an appropriate option for management of mercury, and an appropriate fee structure for that option.

**EXHIBIT A: TIMING OF EPA GRANT OF MIGRATION AND TREATABILITY VARIANCES**

Description	Petition Date	EPA Approval Date (FR Notice)	Approximate Time between Petition and Granting
<b>Treatability Variances Pursuant to 40 C.F.R. § 268.44</b>			
Treatability variance for land disposal of chromium-contaminated (D007) hazardous debris and certain non-debris materials generated by Allied Signal as a result of the dismantlement of its Baltimore Works under a RCRA Consent Decree.	04/17/1990	05/15/1990 (55 FR 20190)	1 month
Treatability variance from the LDR standards for cyanide in F006 nonwastewaters generated by Craftsman and Northwestern, two facilities located in Chicago, Illinois.	No earlier than 06/23/1989, when relevant LDR was promulgated*	05/25/1991 (56 FR 12351)	23 months
Treatability variance from the LDR treatment standards for two hazardous petroleum refinery nonwastewaters located at the CITGO Corporation petroleum refinery outside Lake Charles, Louisiana.	04/13/1994	10/28/1996 (61 FR 55718)	30 months
Treatability variance from the LDR treatment standards for two selenium-bearing hazardous wastes given to Chemical Waste Management, Inc. at its Kettleman City, California facility.	No earlier than 05/24/1998, when relevant LDR was promulgated*	05/26/1999 (64 FR 28387)	12 months
Treatability variance from the LDR treatment standards for approximately 2,850 cubic yards of hazardous waste that Safety-Kleen, Inc. is currently storing at its Deer Park, Texas facility.	03/1999	07/26/2000 (65 FR 45978)	16 months
Treatability variance from the LDR standards for wastewater treatment sludge generated at the Dupont Environmental Treatment—Chambers Works Wastewater Treatment Plant located in Deepwater, New Jersey.	02/2000	06/26/2001 (66 FR 33887)	16 months
Treatability variances from the LDR treatment standards for wastes generated at U.S. Ecology Idaho, Inc. in Grandview, Idaho, and CWM Chemical Services, LLC in Model City, New York for arsenic in waste streams derived from the treatment of multiple listed and characteristic hazardous wastes.	09/2000 and 12/2000	05/22/2002 (67 FR 35924)	20 months
Treatability variance from the LDR treatment standards for radioactively contaminated cadmium-, mercury-, and silver-containing batteries.	06/13/2002	10/07/2002 (67 FR 62618)	4 months

Description	Petition Date	EPA Approval Date (FR Notice)	Approximate Time between Petition and Granting
Treatability variance from the LDR treatment standards to CWM Chemical Services LLC to stabilize a selenium-bearing hazardous waste generated by Guardian Industries Corp. at its RCRA permitted facility in Model City, New York.	05/14/2003	11/19/2004 (69 FR 67647)	18 months
Treatability variances from the LDR treatment standards to Chemical Waste Management, Chemical Services LLC and to Heritage Environmental Services LLC to treat a selenium-bearing hazardous waste from the glass manufacturing industry.	04/09/2004	08/03/2005 (70 FR 44505)	16 months
Treatability variance from the LDR treatment standards for 1,3-phenylenediamine for a biosludge generated at DuPont's Chambers Works facility in Deepwater, New Jersey.	No earlier than 02/24/2005, when relevant LDR was promulgated*	02/07/2006 (71 FR 6209)	12 months
<b>Migration Variances under 40 C.F.R. § 268.6</b>			
Migration variance for placement of hazardous waste at DOE's Waste Isolation Pilot Plant, located near Carlsbad, New Mexico.	03/1989	11/14/1990 (55 FR 47700)	20 months
Migration variance for land disposal of hazardous waste to Exxon Mobil Refining & Supply Company Billings Refinery.	07/1989	07/27/1993 (58 FR 40134)	48 months
Reissuance of a migration variance for land disposal of hazardous waste to Exxon Mobil Refining & Supply Company Billings Refinery.	03/24/1998	07/20/2000 (65 FR 45052)	28 months

\* Neither the Proposed nor Final Federal Register Notice for these variances identified the date the petition was filed. We therefore (conservatively) used the date that the relevant LDR was promulgated as the petition date because the petition would not have been filed until after this date

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TRANSCRIPT OF VIDEO RECORDING OF  
PUBLIC COMMENT SESSION OF THE PUBLIC HEARING FOR  
DRAFT LONG-TERM MANAGEMENT AND STORAGE  
OF ELEMENTAL MERCURY  
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT  
AUGUST 2, 2022

ATKINSON-BAKER, A VERITEXT COMPANY  
(800) 288-3376

TRANSCRIBED BY: MARY HARLOW  
FILE NO: 5368504

A P P E A R A N C E S

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DOUG TONKAY  
DIRECTOR, OFFICE OF WASTE DISPOSAL

JEFF STAHL  
VEOLIA  
PUBLIC COMMENTER

DAVID HAUGHT  
MERCURY PROGRAM LEAD

MARK WATSON  
CITY MANAGER, CITY OF OAK RIDGE, TN  
PUBLIC COMMENTER

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AUGUST 2, 2022

DOUG TONKAY: Thank you, Dave for the presentation. We hope that was beneficial to everybody on, on the video. We'll now to go our next agenda item, which involves finalizing the list of those who would like to provide oral comments today. I expect some online today with us may wish to comment, while others do not. Being a web-based meeting, creating a signup list requires your cooperation. It's not like having a piece of paper available upon entering a room, for signup.

In response to DOE's request in the Notice of Availability, some sent people sent us an email before the hearing, and requested to be on the list to provide comments. I believe at the start of this hearing today we, we did not have any names submitted. So we're starting with a blank sheet.

If you're on the Zoom and you want to speak, we

1 request that you identify yourself now in the Chat  
2 function window; or for those on the phone, I request  
3 that you unmute your phone and indicate that you want  
4 to be added to the speakers' list. Please be patient  
5 while we sort out this list. Remember to provide your  
6 name and applicable organization so we have that for  
7 the record. And please include the spelling of your  
8 name so that we get that correct. After we get the  
9 names of - your name, please mute yourself on the  
10 phone.

11 So, are there any attendees on the phone, just  
12 the phone today, that would like to be added to the  
13 list? Okay. I'm hearing none.

14 Historically, DOE has allowed elected officials  
15 and tribal government representatives to speak first,  
16 then we establish the speaking order by which  
17 individuals register to speak. Thank you for your  
18 patience. Have we received any - and we ask you, if  
19 you'd like to speak, to submit a request. And we will  
20 see if we have any of those now.

21 Okay. At this point, we don't have any  
22 speakers on the list, but we're going to go over the  
23 ground rules in case somebody does want to speak. And  
24 we will be staying on for a bit, to accept any, any  
25 comments. Okay.

1           So now, I - please understand that this meeting  
2           is being conducted in a respectful manner, and that as  
3           many people as possible have a fair opportunity to  
4           provide comments. Please understand that DOE will not  
5           be responding directly to your comments or any  
6           questions during this meeting, and we will not accept  
7           formal comments in the Chat window.

8           As a reminder, the SES - SEIS, and this  
9           presentation are hosted on the Mercury Program  
10          website. I'd like to emphasize that providing oral  
11          comments today is only one of the way that you can  
12          submit your comments during the public comment period.  
13          As Dave said, if you have prepared written comments  
14          that you would like to submit for the record, you're  
15          welcome to do that via email, or the US Post Office.  
16          The information for how to submit written comments is  
17          found in the Notice of Availability, published on July  
18          8th, and on DOE's Mercury Program website.

19          All comments received during the public comment  
20          period, which will end on August 22nd, will be given  
21          equal consideration, and will be included in the  
22          Comment Response document that is prepared for the  
23          final SEIS.

24          Any, any takers yet? No. Okay. So we don't  
25          seem to have constraints here. We have a lot of time.

1 We, we were originally going to limit comments to five  
2 minutes per speaker, so that all comments could be  
3 provided by individuals, and no one dominate the -  
4 sharing the time for the meeting. So, we have  
5 sufficient window of time, if people want to speak  
6 now, and we have plenty of time after. So if we get  
7 folks that want to speak, I'll call on you. You'll -  
8 and we'll also identify another, next speaker, so you  
9 know when your turn is coming. So please remember to  
10 speak clearly and directly into your device, beginning  
11 by stating your name and the name of the organization  
12 that you may be representing in an official capacity.  
13 And then we will take your comments at that point.  
14 Thank you for cooperation.

15 One final request. I know that some, some  
16 folks have, may have strong opinions about DOE's  
17 programs, so the point of a public hearing is to give  
18 each of you an opportunity to provide your thoughts to  
19 us about the Draft SEIS. We are grateful that you  
20 have taken time out of your busy schedules, to  
21 participate in this public hearing, for your ongoing  
22 interest in, in DOE's Waste Management activities.  
23 Regardless of who we are, I would appreciate your help  
24 in making sure that everyone is treated with respect,  
25 and as I know you will appreciate it when it comes

1 time, if you determine you would like to speak. So,  
2 we don't want any interruptions in the process.

3 So with that, I'm going to be prepared to take  
4 comments, and I will leave up on the screen, the  
5 addresses there, if you care to send any comments to  
6 us. So, we're watching the Chat now to see if we have  
7 any, any folks that want to speak. So we're not  
8 hearing from anybody yet, but we're going to hang,  
9 hang here. We did schedule two hours for this  
10 meeting. We, we plan to, you know, keep the Zoom  
11 session open, and phone line. We understand your time  
12 is very valuable. But we're here to take comments if,  
13 if anybody decides. So we will stay on here for at  
14 least a, a bit, maybe, maybe 10 or 15 minutes, to make  
15 sure that if somebody joins us late. And after that,  
16 we'll wrap up the calls.

17 So as a reminder, the comment period concludes  
18 on August 27 - 22nd, unless extended by DOE. So thank  
19 you very much for your time, and we're here if anybody  
20 would like to make an oral comment.

21 JEFF STAHL: Hello. This is Jeff Stahl with  
22 Veolia, and I have a question.

23 DOUG TONKAY: Good afternoon. Thank you, Jeff.  
24 Please go ahead.

14-1 | 25 JEFF STAHL: Okay. Fairly recently, DOE put

14-1  
Cont

1     forth an RFP for the long-term storage of elemental  
2     mercury. How does that RFP get reconciled with the  
3     SEIS process that you guys are going through, also?  
4     My understanding is that that RFP was put forth  
5     without any real qualifications required, other than  
6     having a RCRA Part B license. However, the SEIS is  
7     evaluating only eight facilities in the U.S. So how,  
8     how does that kind of get reconciled together into,  
9     into a final decision?

10           DAVID HAUGHT: Okay. As, as we said, we - we  
11     put out, you know, requests for interest. We had, you  
12     know, a, a few methods of outreach to industry, to  
13     identify, you know, who, who might be interested and  
14     qualified to provide the storage capability. We have  
15     - we put out the RFP, and have no reason to believe  
16     that, you know, our outreach efforts were less than  
17     comprehensive.

18           DOUG TONKAY: Let me, let me also add that the  
19     purpose of this call is the SEIS. We're not here to  
20     talk about procurement type activities. And -  
21     however, appreciated the comment, just sort of tied it  
22     in. Any other - do folks have any other --

23           DAVID HAUGHT: Comments.

24           DOUG TONKAY: -- comments? We're here for  
25     comments, rather than questions.

1 MARK WATSON: This is Mark Watson, the City  
2 Manager of Oak Ridge.

3 DOUG TONKAY: Thank you, Mark.

4 MARK WATSON: Yeah. And - yeah, I even put my  
5 camera on so you could see there is a live person  
6 behind the screen there.

7 I wanted to just make a comment with regards to  
8 this procurement. The procurement is for a building  
9 located probably a couple of miles outside of our, our  
10 city limits. The far city limits has a large number  
11 of residential housing associated with that. You've  
12 got a large number of spread out residential housing.  
13 And the buildings that have been built have been in a,  
14 oh, what would I say - a - a light commercial usage.  
15 But if we look at the structure of the facilities,  
16 will that be something that's taken into account, as  
17 far as this long-term storage? Or are we relying just  
18 on the, the canisters that protect this?

19 DAVID HAUGHT: Thank you very much.

20 MARK WATSON: So I guess that would be - I  
21 guess that would be a comment, that I would say needs  
22 to be looked at with your people that are, are  
23 responding to the, the RFQ and the proposal, and  
24 whether it is conducive to long-term storage, and in  
25 good enough condition to provide protective background

14-2  
Cont

1 and element for that. So, I think the City of Oak  
2 Ridge, because we have one of the more astute  
3 hazardous materials squad within the region, I think  
4 we need to know more about this for any kind of  
5 support for the proposed site. And we'll  
6 (unintelligible) more on that. Thank you.

7 DOUG TONKAY: Thank you for the, for the  
8 comment, and expressing the - and we'll - we have  
9 that, we'll have that noted here in the transcript.

10 Anybody else want to make a comment? We  
11 appreciate Mr. Watson's comment.

12 We're just checking in here. We're waiting in  
13 case anyone else wants to make a comment. I think we  
14 will conclude at 1 p.m., if we don't have any need for  
15 - if - to stay on after that. But we're more than  
16 welcome to take comments for the next few minutes.

17 Well, folks, we're, we're down to a small group  
18 here. But we just wanted to give one, one additional  
19 opportunity, if there is anyone that would like to  
20 make a comment. We scheduled for two hours, and we've  
21 been idle here for a little while. But as a reminder,  
22 the comment period concludes on August 22nd, unless we  
23 extend it. But thank you for your time, and the  
24 comments that were given to us today. We'll consider  
25 all comments as we prepare it, and there are email and

1 US postal mail are acceptable methods, and we also  
2 have another hearing scheduled for Thursday.

3 Unless there's somebody who would like to put  
4 in the Chat or to request time, we're going to  
5 conclude this. And seeing none, right?

6 DAVID HAUGHT: Adjourn.

7 DOUG TONKAY: Okay. Well, we're going to  
8 adjourn. We thank you all for your time, and we  
9 thank, thank those who did speak up. Thank you. Bye.

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(END OF VIDEO)

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I, MARY HARLOW, attest that the foregoing proceedings provided to me via video were transcribed by me to the best of my ability.

I further attest that I am not a relative or employee to any attorney or party nor financially interested in this action.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and correct.

Dated this 24th day of August, 2022.



MARY HARLOW

[1 - doe's]

<b>1</b>	<b>allowed</b> 4:14	<b>c</b>	<b>conclude</b> 10:14
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[dominate - lot]

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[mail - representatives]

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TRANSCRIPT OF VIDEO RECORDING OF  
PUBLIC COMMENT SESSION OF THE PUBLIC HEARING FOR  
DRAFT LONG-TERM MANAGEMENT AND STORAGE  
OF ELEMENTAL MERCURY  
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT  
AUGUST 4, 2022

ATKINSON-BAKER, A VERITEXT COMPANY  
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A P P E A R A N C E S

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DOUG TONKAY  
DIRECTOR, OFFICE OF WASTE DISPOSAL

TOM MANZ  
PUBLIC COMMENTER

JAMES WILLIAMS  
EXECUTIVE DIRECTOR  
ENVIRONMENTAL TECHNOLOGY COUNCIL  
PUBLIC COMMENTER

UNIDENTIFIED MALE SPEAKERS

DAVID HAUGHT  
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VEOLIA ENVIRONMENTAL SERVICES  
PUBLIC COMMENTER

ED ADSHEAD

1  
2 TRANSCRIPT OF VIDEO RECORDING OF  
3 PUBLIC COMMENT SESSION OF THE PUBLIC HEARING FOR  
4 DRAFT LONG-TERM MANAGEMENT AND STORAGE  
5 OF ELEMENTAL MERCURY  
6 SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT  
7 AUGUST 4, 2022  
8

9 DOUG TONKAY: Thank you, Dave for your  
10 presentation. And I hope you all found that  
11 interesting. We'll now go to our next agenda item,  
12 which involves finalizing the list of those who would  
13 like to provide oral comments today. I expect some  
14 online today may wish to comment, while others do not.  
15 Being a web-based meeting, creating a signup list  
16 requires your cooperation, as we don't have a paper  
17 signup sheet at the room, if it were a in-person  
18 meeting.

19 In response to DOE's request in the Notice of  
20 Availability, we did get a - we, we, we offered the  
21 opportunity for people to request a comment prior to  
22 the hearing. And as of now, we have one individual  
23 that we have on the list, to provide comments. So we,  
24 we're going to start from there.

25 If you're on the Zoom list, and you did not

1 notify us previously, and want to speak, we request  
2 that you identify yourself now, in the Chat window.  
3 And for those on the - if there's anyone on the phone  
4 - I'm not sure; I believe there is some folks on the  
5 phone - I request that you unmute your phone, and  
6 indicate that you want to be added to the speakers'  
7 list.

8 So - and let us know now, to add to the list.  
9 Okay. We, we will still take the opportunity to do  
10 that as we go on.

11 Historically, DOE has allowed elected officials  
12 and tribal government representatives to speak first,  
13 the - so when, depending on if we're hearing anything  
14 from who would like to speak, we will establish the,  
15 the ordering of that. So, thank you for your  
16 patience. I'm looking to see if we have had any, any  
17 interested people at this point.

18 So let me go over the ground rules. As I said,  
19 we do have Mr. James Williams, who's on, on the video,  
20 who previously notified us of his willingness to give  
21 us oral comments.

22 So I ask that if, for all folks, I just want to  
23 quickly go over the rules. Please state your name,  
24 and make sure we've got it right. Please understand  
25 that we are not going to be responding directly to

1 your comments or questions today, unless it's  
2 clarifying something that was in the presentation.  
3 And we won't accept any comments in the Chat window.

4 So, the presentation will be posted on the  
5 Mercury Program website on the DOE web page, if you'd  
6 like to take a look at that afterwards. And we'd like  
7 to emphasize that providing oral comments today is  
8 only one of the ways that you can submit comments  
9 during this public comment period. As Dave mentioned,  
10 you can provide written comments, as well, and submit  
11 those for the record through email or the Post Office.  
12 The information on how to submit the comments was in  
13 the presentation. It was also in the Notice of  
14 Availability published on July 8th, and it's on the,  
15 on the website.

16 All comments received during the comment  
17 period, which will end on August 22nd unless it's  
18 extended, will be given equal consideration, and will  
19 be included in the Comment Response document.

20 Okay. We're not getting a, a large response,  
21 so I think we will have sufficient time for speakers.  
22 And we, we would appreciate hearing from you, and  
23 we'll - we can work with the speakers on how much time  
24 they each want. But if sufficient time remains in our  
25 two-hour window, as long as we're - we'll make sure

1 all folks that want to speak have time before they're  
2 finished. So when it's time to speak, we'll call on  
3 you. Please then unmute your device and begin your  
4 remarks, and we'll go from there.

5 If, if - if we don't get a lot of speakers, we  
6 will definitely remain here probably for at least a  
7 half an hour, or some time after, after the present  
8 speakers are done, in case somebody would decide, come  
9 up with another question, and - or, or comment, and  
10 care to share something, or - yeah. Regardless of  
11 your position, we would appreciate you making sure  
12 that everyone who speaks is treated with respect, as I  
13 know everybody will appreciate that, and when it's  
14 their turn to speak.

15 I know some people have strong opinions about  
16 DOE's programs. The point of a public hearing is to  
17 give each of you an opportunity to provide your  
18 thoughts on the DOE Draft SEIS, and we're grateful  
19 that you all took the time out to - of your busy  
20 schedules to participate, to hear the presentation,  
21 and if you so desire, provide us with, with comments  
22 during this hearing. And we're always interested in,  
23 in your, your participation in our Waste Management  
24 activities.

25 So with that, we, we ask you to, again, not

1 make any interruptions while people are commenting.  
2 And with that, we will begin comments. We do have two  
3 - another commenter, Mr. Tom Manz. Tom, I just wanted  
4 to confirm if you are an - a local official, or a  
5 representative of an Indian tribe or not.

6 TOM MANZ: No, I am not.

7 DOUG TONKAY: Okay. So we will go in the  
8 order. We will do Mr. Williams first, and then Mr.  
9 Manz. And then we'll see if we get any other interest  
10 after that. So at this point, I'm going to turn it  
11 over to Mr. James Williams for his comments.

12 JAMES WILLIAMS: Thank you, Dave and Doug. Can  
13 everyone hear me well?

14 DOUG TONKAY: Yes.

15 JAMES WILLIAMS: Okay, great. Dave and Doug,  
16 first of all, thank you for allowing me this  
17 opportunity to testify on behalf of the Environmental  
18 Technology Council. My name is James Williams. I  
19 serve as Executive Director for ETC. And again, we  
20 appreciate this opportunity, and it's good to see both  
21 of you. It's, it's been a while. Good to see both of  
22 you are doing well.

23 ETC is the National Trade Association that  
24 represents the commercial hazardous waste management  
25 industry. The ETC membership includes companies that

1 provide technologies, and services for source  
2 reduction, fuel blending, recycling, treatment, and  
3 secure disposal of industrial hazardous waste. ETC  
4 companies conduct mercury collection and reclamation  
5 operations, such as universal waste programs for  
6 mercury-containing thermostats, recycled by mail  
7 programs for fluorescent and HID lamps, batteries, and  
8 other mercury lamps, lights, and thermostats.

9 ETC member firms own and operate commercial  
10 facilities such as mercury retort ovens, mercury  
11 distillation units, commercial treatment plants,  
12 incinerators, fuel blending facilities, secure  
13 landfills, and other types of facilities for the  
14 proper management and storage of hazardous waste.

15 The Mercury Export Ban Act directs DOE to  
16 designate a facility, or facilities, for the long-term  
17 management and storage of elemental mercury generated  
18 in the United States. MEBA also provides the  
19 Secretary of Energy with the authority to establish  
20 such terms, conditions, and procedures as are  
21 necessary to carry out this long-term management and  
22 storage function. However, before such terms,  
23 conditions, and procedures can be established, DOE  
24 must make a designation determination.

25 In its Draft Supplemental Environmental Impact

1 Statement, DOE is considering five alternative site  
2 locations, two of which are ETC member companies.  
3 Therefore, ETC supports the efforts being taken by  
4 DOE. The Agency's Draft Supplemental EIS notes that  
5 the specific requirements for a DOE mercury storage  
6 facility are based on RCRA, Resource Conservation and  
7 Recovery Act requirements, and will be included in  
8 the procurement, and contractual documents associated  
9 with the designated facility or facilities.

10 As the National Trade Association representing  
11 companies that own and operate RCRA regulated  
12 treatment, storage, and disposal facilities, ETC  
13 supports DOE's efforts to ensure the selected facility  
14 is RCRA compliant. Such facilities are regulated and  
15 inspected by EPA, and meet the highest standards in  
16 terms of safety and security.

17 For example, RCRA regulated treatment, storage,  
18 and disposal facilities are required to have proper  
19 spill containment features, and emergency response  
20 procedures. They must be fully enclosed, weather  
21 protected buildings. They also are required to have  
22 reinforced concrete floors able to withstand heavy  
23 structural loads, ventilated storage and handling  
24 areas, fire suppression systems, and security access  
25 controls. These are just a very short list of the

1 many requirements in terms of safety and security that  
2 RCRA requires.

3 In short, RCRA has resulted in an  
4 infrastructure of regulated facilities that are  
5 designated and operated for the specific purpose of  
6 properly storing and disposing toxic - excuse me -  
7 chemical waste. Given that exposure to mercury can  
8 damage the nervous system, kidneys, liver, and immune  
9 systems, it is imperative that DOE act quickly to  
10 finalize a designated facility, and subsequently move  
11 forward with establishing terms, conditions, and  
12 procedures - for example, storage fees - that are  
13 necessary to carry out the Agency's long-term  
14 management and storage functions.

15 Finally, I pose the question to the Agency. In  
16 making the facility determination, will DOE be  
17 considering lowering the purity level for mercury  
18 storage below the current level of 99.5? This is a  
19 question that has been posed by some of the ETC  
20 members, and it is of concern that we work with DOE  
21 moving forward on this issue, depending on what  
22 direction they decide to move.

23 In closing, the ETC would like to thank the  
24 Agency for the opportunity to submit comments on its  
25 Draft Supplemental EIS. Should there be any questions

1 or concerns, please do not hesitate to contact me  
2 directly, or our General Counsel, Mr. David Case. And  
3 we will be filing official comments before the comment  
4 deadline of August 22nd. Thank you very much.

5 DAVID HAUGHT: They cannot hear you. You need  
6 to unmute the Zoom, in the 270 Room.

7 DOUG TONKAY: There we go.

8 DAVID HAUGHT: Excellent.

9 DOUG TONKAY: Sorry about that. Thank you,  
10 James. We appreciate your, your comments. And I -  
11 we're not prepared today to answer your question, but  
12 we will get - we will get back to you through a  
13 separate media, I think on that question.

14 JAMES WILLIAMS: All right. Thank you very  
15 much.

16 DOUG TONKAY: Thank you, though. Yeah. Okay.  
17 So let's go on to our next comment, commenter, which  
18 is Mr. Tom Manz. Go ahead, Tom.

19 TOM MANZ: Actually, Mr. Williams just asked  
20 the question I was going to ask. So I, I would  
21 appreciate to be included in the discussion with you  
22 about that. That would be terrific. Thank you.

23 DOUG TONKAY: Okay. Thank you. We - as -  
24 Dave, you want to say something?

25 DAVID HAUGHT: Just, just to clarify, Mr. Manz,

1 is that the, the purity question?

2 TOM MANZ: Yes, it is.

3 DAVID HAUGHT: Okay.

4 TOM MANZ: Yes, it is.

5 DAVID HAUGHT: Thank you.

6 JAMES WILLIAMS: Doug and Dave, may, may I ask  
7 a question?

8 DAVID HAUGHT: Yes, you may.

9 DOUG TONKAY: Go ahead. Well --

10 DAVID HAUGHT: James?

11 JAMES WILLIAMS: Just, just a clarifying  
12 question, if it possible?

13 DOUG TONKAY: Certainly. Go ahead. Are we --

14 DAVID HAUGHT: Please - please ask your  
15 question, James. Well, that's new. Can anyone hear  
16 us?

17 MALE SPEAKER: Yes. So we're hearing you fine.  
18 He might be having a --

19 DOUG TONKAY: Okay.

20 MALE SPEAKER: -- speaker issue, but I believe  
21 he's typing - so, yes. So he just put in the Chat,  
22 'May I ask a clarifying question?' And we'll answer  
23 him.

24 DAVID HAUGHT: Okay. Good. Are you done with  
25 the speaker?

1 MALE SPEAKER: Just one moment.

2 DOUG TONKAY: James, can you hear us now?

3 DAVID HAUGHT: Respond in the Chat, and he can -

4 -

5 DOUG TONKAY: Sorry. Sorry, we're having a  
6 little bit of technical difficulties there with the --

7 JAMES WILLIAMS: So - okay. Yeah. For  
8 whatever reason, I can't hear you.

9 DOUG TONKAY: There - can you hear us now,  
10 James? Or --

11 JAMES WILLIAMS: Okay, what's going on here.

12 DOUG TONKAY: Okay. We can hear. We can hear  
13 you, but I guess you can't hear us.

14 JAMES WILLIAMS: I may have to log out and,  
15 and, and reboot.

16 DAVID HAUGHT: Go ahead.

17 JAMES WILLIAMS: So I'll do that and --

18 DAVID HAUGHT: All right.

19 JAMES WILLIAMS: -- come right back in.

20 DOUG TONKAY: Okay. Would anybody else like to  
21 make a comment at this point? We are open for  
22 comments.

23 DAVID HAUGHT: It's doing that again. Tom Manz,  
24 do you - is there an organization that you represent?

25 TOM MANZ: It's an independent organization.

1 DAVID HAUGHT: Okay. Thank you.

2 TOM MANZ: Would it be possible to get Mr.  
3 Williams' contact information, if that's possible?

4 DOUG TONKAY: I think he'll be coming back on.  
5 So --

6 TOM MANZ: Thank you.

7 DOUG TONKAY: We're hoping. In the meantime,  
8 if there is anyone else - we, we don't have anybody  
9 else signed up or indicated, but if you are, send us  
10 those - a chat, and we'll recognize you. And it looks  
11 like Mr. Williams is getting back on with us, so.

12 DAVID HAUGHT: Yeah.

13 JAMES WILLIAMS: Okay. Can you guys hear me?

14 DOUG TONKAY: Yes, Sir.

15 JAMES WILLIAMS: Okay. Whatever reason - I, I  
16 still can't hear you. But the question, the  
17 clarifying question was - you, you mentioned that you  
18 were not prepared to answer questions today,  
19 particularly the question that I posed in my comments.  
20 But you said you would follow up with responses to  
21 that in a - and I couldn't quite catch that last part.

22 DOUG TONKAY: Okay. We had received an email -  
23 -

24 JAMES WILLIAMS: I can't hear you. Maybe it  
25 can be typed into the Chat?

1 MALE SPEAKER: We don't, we don't have the  
2 chat.

3 DOUG TONKAY: (unintelligible)

4 MALE SPEAKER: I know.

5 DOUG TONKAY: I'm sorry, everyone, for the  
6 technical difficulties here. So with James, we can't  
7 get a - he's unable to hear us for some reason.

8 MALE SPEAKER: Doug, I answered James, in that  
9 the answers will be provided in the final SEIS. I  
10 answered it in the Chat.

11 DOUG TONKAY: Okay. Thank you, Mr.  
12 (unintelligible)

13 MALE SPEAKER: And Mr. Williams --

14 MALE SPEAKER: Did he acknowledge?

15 MALE SPEAKER: -- had responded, 'Okay,  
16 thanks.'

17 DOUG TONKAY: Okay. While we're open for other  
18 questions - other comments on the EIS, we, we  
19 appreciate the comments we've received so far.

20 MALE SPEAKER: (unintelligible)

21 DOUG TONKAY: But we're going to wait and see -  
22 it's a little awkward, but if - we'll, we'll sit here  
23 and wait in case somebody else joins us that wants to  
24 provide a comment, for a while. It - our clocks here  
25 are showing it's about 10 'til two. So I think we'll

1 wait at least 15 minutes here, and pause. If anybody  
2 would like to make a comment, please, please chat with  
3 - send a, an email to the Chat, or open up your phone  
4 line - we'll be to take it.

5 HOLLI BECHARD: Hi. Can anybody here me now?

6 DOUG TONKAY: Yes, please. We --

7 HOLLI BECHARD: Oh, hi, this is Holli. I, I'm  
8 sorry. I'm driving, and I was just getting into it.  
9 So, the SEI for the purity will --

10 DOUG TONKAY: Could --

11 HOLLI BECHARD: -- done when? Is that August -  
12 -

13 DOUG TONKAY: Could --

14 HOLLI BECHARD: -- 22nd?

15 DOUG TONKAY: First of all, could we get your,  
16 your, your full name, and if you represent an --

17 HOLLI BECHARD: Oh, absolutely.

18 DOUG TONKAY: -- organization, Holli.

19 HOLLI BECHARD: Well, yeah. Holli Bechard - B-  
20 E-C-H-A-R-D. And I'm with Veolia Environmental,  
21 actually.

22 DOUG TONKAY: Okay. We - the comment period -  
23 Dave, why don't you take this, then.

24 DAVID HAUGHT: Yeah, the comment period is -  
25 runs until August 22nd of this year. We have received

1 a request to extend the comment period, and we are  
2 considering that. If, if we do extend it, that would  
3 be published in a - with a Federal Register notice.

4 HOLLI BECHARD: Oh, okay. Thank you so much.

5 DOUG TONKAY: Thank you. Any other comments?  
6 We are open to take comments, if any of our  
7 participants want to make some public comments.

8 We're seeing some - I'm seeing some changes on  
9 my screen, so I can't be sure if we have people  
10 joining us, or, or going off of us. At this point, we  
11 are open for public comments. We've completed a  
12 presentation. We're open for any public comments.  
13 And it looks like James has found a phone to join us  
14 on, so - is --

15 JAMES WILLIAMS: Yeah, can you - I can hear you  
16 guys now.

17 DOUG TONKAY: Great. Thank you. We're - and  
18 probably what you missed, James, we did have somebody  
19 ask us about the comment period, and we are holding  
20 for a little while to see if anybody joins us - at the  
21 two o'clock Eastern hour, that may want to comment,  
22 so.

23 JAMES WILLIAMS: You guys are on the East  
24 coast.

25 DOUG TONKAY: Yeah. We are on the East coast.

1 JAMES WILLIAMS: On the East coast, I think  
2 from D.C. So, it's two o'clock?

3 DOUG TONKAY: Yep. We're - just to clarify,  
4 it's five 'til two at - on the East coast, yes. So  
5 we'll wait a - wait, wait out here a few minutes to  
6 see if anybody cares to comment. As I said, we can -  
7 we are taking email comments; we are taking mail  
8 comments, in addition if people would just like to  
9 send them to us directly.

10 MALE SPEAKER: Yeah, that's Larry.

11 DOUG TONKAY: Just a reminder, if anybody just  
12 joined us, we, we have completed a presentation, and  
13 received comments from those who cared to comment.  
14 But we're keeping the lines --

15 (cross talk from phone line)

16 DOUG TONKAY: -- and if you're not - if you  
17 haven't muted your phones, please do that, unless  
18 you'd like to make a comment.

19 (cross talk from phone line)

20 DOUG TONKAY: Should we suggest --

21 DAVID HAUGHT: James, are you still on the  
22 line? James Williams, are you still on the line?

23 DOUG TONKAY: No.

24 JAMES WILLIAMS: Yes. Yes, Sir.

25 DOUG TONKAY: Oh, he is.

1           DAVID HAUGHT: Hi. Yeah - while you were  
2 reconnecting, Tom Manz had asked for your contact  
3 information. And I, I, I leave that up to you on how  
4 to respond to that.

5           JAMES WILLIAMS: Sure. Can I just verbally  
6 give it to him, or --

7           MALE SPEAKER: That would be up to you, but you  
8 can also send him a direct message in the Chat, if  
9 you're able to do that from your iPhone.

10          JAMES WILLIAMS: Oh - technology skills here.  
11 Let me see. Okay. Okay. Chat. Okay. How do I send  
12 it directly to him? Do I type his name in?

13          MALE SPEAKER: Ed?

14          ED ADSHEAD: So I'm not on a iPhone, so I'm not  
15 sure exactly, but you should have a pull-down menu  
16 where you can see all - the whole list of  
17 participants. And in --

18          JAMES WILLIAMS: Yes --

19          ED ADSHEAD: -- that case, you --

20          JAMES WILLIAMS: I --

21          ED ADSHEAD: -- should be able to select his  
22 name, in the 'To' field.

23          JAMES WILLIAMS: Okay. I get - I got it. All  
24 right. I'll send it to him right now.

25          ED ADSHEAD: Excellent.

1 DOUG TONKAY: Thank you. And thank you for  
2 reminding us that, that Mr. Manz asked for that.

3 JAMES WILLIAMS: And, and are you able to tell  
4 me who Mr. Manz is with - company?

5 DAVID HAUGHT: And it's - he, he - he - well,  
6 I'll let - Mr. Manz, would you like to answer that  
7 question?

8 TOM MANZ: Yeah. This is Tom Manz. And like I  
9 said, an independent organization. James, I also sent  
10 you my contact information - phone number and, and  
11 email address in the Chat box, if you can access --

12 JAMES WILLIAMS: Okay.

13 TOM MANZ: -- it's all there.

14 JAMES WILLIAMS: Okay. I'm sending my  
15 information to you right now.

16 TOM MANZ: Very good. Thank you so much.

17 JAMES WILLIAMS: Um-hmm.

18 DOUG TONKAY: Well, certainly, we, we  
19 appreciated your comments today. The questions we got  
20 - as, as we said, we're not answering questions in the  
21 format. But we, we would appreciate, perhaps, if, if  
22 during the - or today, or comments, if you would,  
23 instead of asking a question, provide comments on that  
24 same subject, that would be definitely of interest to  
25 us, instead of a question.

1 I think we're going to hang on here for another  
2 five minutes, maybe, or so, just to make sure nobody  
3 joined at the top of the hour here, on the call. But  
4 there's no sense taking your time just to keep all the  
5 lines open, if we're not going to get any more  
6 comments today. But as we said, we are looking for  
7 comments until August 22nd. We appreciate written  
8 comments - email, postal, and if anyone yet wants to  
9 do one today.

10 DAVID HAUGHT: And just, just a reminder -  
11 whether it's, you know, stated as a question or as a  
12 statement, it will be addressed in the, the Comment  
13 Response document.

14 DAVID HAUGHT: No?

15 DOUG TONKAY: Folks, we thank you for your  
16 patience. We appreciate your time and your  
17 participation, the comments. Unless we have anyone  
18 else that wants to speak a word, we're going to close  
19 the meeting at this point. And we'll look forward to  
20 addressing the comments that we, we get from the,  
21 these meetings, and the, through the email, and postal  
22 system in the Comment Response document. And we'll be  
23 working towards a final SEIS.

24 So, thank you all, and we look forward to any  
25 comments you want to send us. This concludes our

1 public hearing. Thank you.

2

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(END OF VIDEO)

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1  
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4 I, MARY HARLOW, attest that the foregoing proceedings  
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6 best of my ability.

7 I further attest that I am not a relative or employee  
8 to any attorney or party nor financially interested in  
9 this action.

10 I declare under penalty of perjury under the laws of  
11 the state of California that the foregoing is true and  
12 correct.

Dated this 24th day of August, 2022.

13  
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16 MARY HARLOW  
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[10 - comment]

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[comment - emergency]

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[emphasize - impact]

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