DEPARTMENT OF ENERGY, OFFICE OF ENVIRONMENTAL MANAGEMENT
NATIONAL ENVIRONMENTAL POLICY ACT
INTERIM ACTION DETERMINATION

REQUISITE BACKGROUND: The *Mercury Export Ban Act of 2008* (Public Law [P.L.] 110-414) and the *Frank R. Lautenberg Chemical Safety for the 21st Century Act* (P.L. 114-182) (together referred herein as MEBA), direct the Department of Energy (DOE) to designate and have operational a facility (or facilities) of DOE for the long-term management and storage of elemental mercury generated within the United States (42 United States Code [U.S.C.] § 6939f(a)(1)-(2)).

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 (42 U.S.C. § 6939f(a)(2)). MEBA requires that DOE adjust fees for generators temporarily accumulating elemental mercury if the DOE facility is not operational by January 1, 2019 (42 U.S.C. § 6939f(b)(1)(B)(iv)). 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,[1] (2) pay any applicable Federal permitting costs, and (3) store, or pay the cost of storage of, until the time at which a designated 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)).

Pursuant to the National Environmental Policy Act (NEPA), DOE analyzed the potential impacts of alternative long-term management and storage facilities in a: 2011 Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (EIS) (DOE/EIS–0423), 2013 Final Supplemental EIS (SEIS-I) (DOE/EIS–0423–S1), and 2019 Supplement Analysis (SA) (DOE/EIS–0423–SA–01). Based on consideration of the analyses of the EIS, SEIS-I, and SA, DOE issued a Record of Decision (ROD) on December 6, 2019, that designated the Waste Control Specialists (WCS) site near Andrews, Texas, as a DOE facility for management and storage of up to 6,800 metric tons (7,480 tons) of elemental mercury (84 *Federal Register* (FR) 66890).

Two domestic generators of elemental mercury subsequently filed complaints in United States District Court challenging, among other things, the ROD designating the WCS site as a DOE facility for the long-term management and storage of elemental mercury (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. Under the settlement agreement with NGM, DOE agreed to withdraw the designation of WCS as a facility of DOE for the purpose of long-term management and storage of elemental mercury, and DOE agreed to accept title to and store 112 metric tons (MT) of elemental mercury that is currently in temporary

[1] Conveyance of title pertains to mercury accumulated in accordance with 42 U.S.C. § 6939f(g)(2)(D).

storage at NGM facilities. DOE withdrew its designation of WCS in an Amended ROD published on October 6, 2020 (85 FR 63105).

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 a Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (SEIS-II, DOE/EIS–0423–S2) to evaluate the potential impacts of DOE's designation of one or more existing facilities for the long-term management and storage of elemental mercury in accordance with MEBA. This SEIS-II would supplement the 2011 EIS and the 2013 SEIS-I by updating the previous analyses of potential environmental impacts of transportation, management, and storage of up to 7,000 MT of elemental mercury and analyzing additional alternatives, in accordance with NEPA. The Draft SEIS-II will inform DOE's decision related to designation of a facility or facilities for the long-term management and storage of elemental mercury as required in MEBA and is expected to be published for public review in the first half of calendar year 2022.

To address the elemental mercury subject to the settlement agreement, on February 4, 2022, DOE issued a Request for Task Order Proposals (RTP)[2] seeking proposals to provide ancillary services for the interim management and storage[3] of up to 120 MT of elemental mercury. DOE will evaluate received proposals to determine how to proceed with the interim management and storage of the elemental mercury for which DOE accepts title pursuant to the settlement agreement with NGM.

REGULATORY BASIS: Under DOE's NEPA implementing procedures at 10 CFR § 1021.211, DOE shall take no action concerning a proposal that is the subject of an EIS before issuing a ROD except as provided in the Council on Environmental Quality (CEQ) Regulations. The CEQ Regulations (40 CFR § 1506.l(a)) state that "until an agency issues a finding of no significant impact, as provided in § 1501.6 of this chapter, or record of decision as provided in § 1505.2 of this chapter, no action concerning the proposal may be taken that would: (1) [h]ave an adverse environmental impact; or (2) [l]imit the choice of reasonable alternatives." DOE's implementing procedures refer to an "interim action" as, "an action concerning a proposal that is the subject of an ongoing EIS and that DOE proposes to take before the ROD is issued, and that is permissible under 40 CFR 1506.1: Limitations on actions during the NEPA process" (10 CFR § 1021.104(b)). Such action should proceed in accordance with applicable CEQ and DOE requirements.

PROPOSED INTERIM ACTION: In accordance with the terms of the settlement agreement between DOE and NGM, DOE's Office of Environmental Management (EM) proposes to accept

[2] On December 3, 2020, DOE issued a basic ordering agreement (BOA) to five companies to conduct nationwide waste management services, including ancillary services such as the management and storage of elemental mercury. (https://www.energy.gov/em/articles/doe-awards-basic-ordering-agreements-nationwide-low-level-mixed-low-level-waste) The RTP was sent to these BOA holders.

[3] The RTP uses the term, "interim long-term management and storage." Throughout this IAD, DOE uses "interim management and storage" to represent the actions involving elemental mercury subject to the settlement agreement. This action is distinct from designation of a facility or facilities for "long-term management and storage," as required under MEBA. Designation of a facility or facilities for the long-term management and storage will be evaluated in the Mercury Storage SEIS-II, and decisions related to such designation would be made in a ROD.

title to the 112 MT of mercury from the NGM facilities and to provide interim management and storage of this elemental mercury in a permitted facility selected by DOE based on responses to the RTP. DOE may award a task order for up to 120 MT to allow margin above the amount of mercury stipulated in the settlement agreement and to provide flexibility without having to re-evaluate minor increases above 112 MT. The analysis in this Interim Action Determination (IAD) evaluates 120 MT of mercury, although only 112 MT is expected.

The proposed interim action involves several components (some of which are connected actions being performed by others) including: (1) the shipment of the mercury from NGM facilities to a permitted treatment facility; (2) treatment at a permitted facility to achieve at least 99.5 percent purity by volume; (3) shipment of the treated mercury to the permitted storage facility; and (4) interim management and storage of the mercury at the permitted storage facility at least until DOE designates a long-term management and storage facility pursuant to MEBA. While DOE has not yet selected an interim management and storage facility, it expects to select from among the five BOA holders which allows DOE to bound the potential impacts associated with the facility and its location. Additionally, DOE anticipates that treatment prior to storage would occur at Bethlehem Apparatus, a permitted treatment facility in Bethlehem, Pennsylvania, and has based its assessment of potential impacts related to treatment on this assumption.[4]

WHY THE PROPOSED INTERIM ACTION IS ALLOWABLE UNDER 40 CFR § 1506.l(a): The proposed interim action would allow DOE to comply with the terms of the settlement agreement as soon as practicable. The primary components of the proposed interim action are listed below with justification for why they do not limit the choice of reasonable alternatives for the designation of an existing facility for long-term management and storage of elemental mercury or have an adverse impact on the environment.

- The elemental mercury accumulated at NGM facilities is stored in 1-MT containers; the same sized containers that could be used for interim, and potentially long-term storage. Therefore, other than loading the sealed, 1-MT containers onto trucks, no direct handling of the mercury would be required at the NGM facilities. Therefore, no health and safety impacts to workers or the public would be expected from this activity.
- A legal-weight truck can carry at least thirteen 1-MT containers of elemental mercury. Therefore, up to ten truck shipments could be required to transport the mercury from NGM facilities to the treatment facility, then from the treatment facility to the interim storage facility.[5]
- The treatment of the elemental mercury at Bethlehem Apparatus would involve retorting (roasting) the mercury to remove impurities. Bethlehem Apparatus is permitted by the Commonwealth of Pennsylvania for these operations. There would be no increases in

[4] The settlement agreement states that the mercury from NGM would be shipped to Waste Management Union Grove for treatment. Since execution of the settlement agreement, Waste Management no longer provides treatment services at its Union Grove, Wisconsin facility.

[5] The analysis of ten truckloads assumes that up to 120 MT of elemental mercury are shipped to ensure the analysis accounts for the buffer that has been included in the RTP.

potential impacts from this commercially available service beyond those that were identified and considered during the permitting process.

- The RTP task awardee would manage and store the elemental mercury at their facility on an interim basis, in accordance with their permit. There would be no increases in potential impacts from this commercially available service beyond those identified and considered during the permitting process.
- The interim management and storage of the elemental mercury subject to the settlement agreement would represent less than two percent of the inventory of elemental mercury that could require long-term management and storage over the next 40 years (7,000 MT as analyzed in the draft Mercury Storage SEIS-II). As such, it constitutes a small amount of elemental mercury that would be stored for a relatively short period of time until a long-term management and storage facility is designated by DOE and becomes operational.

  The inventory of elemental mercury evaluated in DOE's SEIS-II includes the mercury subject to the settlement agreement, as a component of the up to 7,000 MT that could be stored at the long-term management and storage facility. As such, the ultimate long-term storage of this mercury will be subject to the same NEPA analysis and decision-making process as the other mercury covered by the SEIS-II. Further, in the event DOE awards a task as a result of the RTP, the new location of the 112 MT of mercury would be reflected in the ongoing Mercury Storage SEIS-II for the analysis of potential transportation impacts for the full 7,000 MT projected inventory of mercury to the DOE-designated long-term management and storage facility.

  This IAD is intended only to cover the short-term, interim management and storage of up to 120 MT. The identification of reasonable alternatives, as well as a preferred alternative for designation of a long-term management and storage facility in the Mercury Storage SEIS-II and any resultant decision in a ROD would be based on a variety of factors including, but not limited to, schedule, costs, potential environmental impacts, and geographic location. Interim storage of less than two percent of the projected mercury inventory of up to 7,000 MT in a permitted facility would not limit the choice of reasonable alternatives for a long-term management and storage facility.

- Potential impacts associated with the transportation of the subject mercury from Nevada would include those associated with the assumed ten truck shipments to the Bethlehem Apparatus treatment facility and then to the interim management and storage facility.
  - The distance between the NGM facilities and Bethlehem, Pennsylvania, where the mercury would be treated, is approximately 2,400 miles. Therefore, the ten shipments to this permitted treatment facility would involve approximately 24,000 total truck miles.
  - The BOA holders that could respond to the RTP to provide interim management and storage services have facilities located in Arkansas, Tennessee, and Texas.[6]

[6] This preliminary set of locations is based on responses from BOA holders to DOE information requests during preparation of the Draft SEIS-II.

Considering that the Texas location would be the furthest from Bethlehem Apparatus, the transportation of the treated mercury could travel up to 1,900 miles per shipment. Therefore, the ten shipments of treated mercury from Bethlehem Apparatus to an RTP task awardee for interim management and storage would involve, at most, 19,000 total truck miles.

- Combining the total truck miles from these two operations yields approximately 43,000 miles of potential truck travel. The 2011 Mercury Storage EIS evaluated the potential transportation impacts associated with the transportation of 10,000 MT of elemental mercury to various alternative facilities. The analysis in the 2011 EIS demonstrated that the potential accident risks related to transportation of mercury over approximately 1.25 million truck miles were negligible to low.
- Accident risk is a combination of the potential consequences of an accident and its estimated probability. The potential consequences of an accident (as described in Table 2-9 of the 2011 EIS (DOE 2011)) are independent of the number of shipments and therefore would not change under this proposed interim action. The lower miles associated with this proposed interim action would result in a probability of an accident over 90 percent lower than that reported in the 2011 EIS, which would reduce the estimated accident frequency range from "moderate" to "low," and would further reduce the predicted accident risk; however, the risk for some accident scenarios (e.g., transportation accident with a fire) would still be characterized as "low."
- The analysis in this IAD was based on 20 truck shipments to transport the elemental mercury. Even if the trucks were only half filled and twice the number of trucks were required, the potential accident risks associated with the transportation would still be negligible to low.

Potential impacts from the long-term management and storage of elemental mercury were previously analyzed in the following NEPA documents, hereby incorporated by reference:

- Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (DOE/EIS-0423; EIS) (DOE 2011).
- Final Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S1; SEIS-I) (DOE 2013).
- Supplement Analysis of the Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement (DOE/EIS-0423-SA-01; SA) (DOE 2019).

The previous EIS, SEIS-I, and SA for long-term management and storage of elemental mercury, all found very low impacts resulting from long-term management and storage of up to 10,000 MT of elemental mercury (approximately 6,800 MT in the SA), including from land use and visual resources; geology, soils, and geologic hazards; water resources; air quality and noise (including climate change); ecological resources; cultural and paleontological resources; site infrastructure; ecological risk; socioeconomics; environmental justice; waste management; and transportation. As discussed above, the interim management and storage of less than two percent of the projected mercury inventory, transported less than four percent of the miles previously

analyzed, would be expected to have even lower impacts than the impacts described in those documents. In addition, both the treatment and storage facilities would be existing permitted facilities, and there would be no increases in potential impacts from this commercially available service beyond those that were identified and considered during the permitting processes.

DETERMINATION: Based on the discussions above, the proposed transportation and interim management and storage of up to 120 MT of elemental mercury would not (1) have an adverse environmental impact; or (2) limit the choice of reasonable alternatives.

DOE EM has issued an RTP under the existing BOAs and may award a task for the interim management and storage of elemental mercury. The activities that are covered under this IAD include the following:

- Transport up to 120 MT of elemental mercury from Nevada to a permitted treatment facility (Bethlehem Apparatus).
- Treat the mercury to 99.5 percent purity by volume within the administrative and technical conditions identified in the permit for the treatment facility.
- Transport the mercury to the RTP task awardee for interim management and storage.
- Provide interim management and storage of the mercury under the approved contract terms until DOE completes analysis of and makes a decision regarding designation of a long-term management and storage facility or facilities.

Approval:  Date: March 17, 2022

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REFERENCES:

DOE (U.S. Department of Energy) 2011. *Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement*. DOE/EIS-0423. January. Available online: https://www.energy.gov/nepa/eis-0423-long-term-management-and-storage-elemental-mercury.

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DOE (U.S Department of Energy) 2019. *Supplement Analysis of the Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement*. DOE/EIS-0423-SA-1. June. Available online: https://www.energy.gov/sites/prod/files/2019/06/f63/eis-0423-sa-01-elemental-mercury-2019-06-03v3.pdf.