[6450-01-P]

DEPARTMENT OF ENERGY

Record of Decision for the Long-Term Management and Storage of Elemental Mercury

AGENCY: Office of Environmental Management, U.S. Department of Energy.

ACTION: Record of Decision.

SUMMARY: The U.S. Department of Energy (DOE) is issuing this Record of Decision (ROD) for the long-term management and storage of elemental mercury to meet the federal government's statutory responsibility for long-term storage of the elemental mercury generated within the United States. This ROD is issued for the *Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423; Final Elemental Mercury Storage EIS) and the *Final Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement* (DOE/EIS-0423-S1; Final SEIS). In 2019 DOE prepared a *Supplement Analysis of the Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423-SA-01) to determine if there have been substantial changes to the proposal or if there are significant new circumstances or information relevant to environmental concerns as compared with those presented in the Final Elemental Mercury Storage EIS and Final SEIS. This ROD announces the DOE decision to store up to 6,800 metric tons (7,480 tons) of elemental mercury in existing buildings at Waste Control Specialists near Andrews, Texas.

ADDRESSES: For copies of this Record of Decision, the Supplement Analysis, the *Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423), or the *Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement (DOE/EIS-0423-S1)*, please contact Dave Haught at U.S. Department of Energy, Office of Environmental Management, Office of Waste Disposal (EM-4.22), 1000 Independence Avenue, S.W., Washington, DC 20585 or at David.Haught@em.doe.gov. Electronic files can be accessed at https://www.energy.gov/nepa/nepa-documents.

FOR FURTHER INFORMATION CONTACT: For further information on the management and storage of elemental mercury, please contact Dave Haught at David.Haught@em.doe.gov or visit https://www.energy.gov/em/services/waste-management/waste-and-materials-disposition-information/long-term-management-and. For general information on the Office of Environmental Management's National Environmental Policy Act of 1969 process, please contact Bill Ostrum, at William.Ostrum@hq.doe.gov and at (202) 586-2513.

SUPPLEMENTARY INFORMATION:

Background

Pursuant to Section 5 of the Mercury Export Ban Act of 2008 (Pub. L. 110-414; MEBA), as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, (Pub. L. 114-182) (herein referred to as MEBA), the U.S. Department of Energy (DOE) was directed to designate a facility or facilities for the long-term management and storage of elemental mercury generated within the United States.

On July 2, 2009, DOE issued a Notice of Intent in the *Federal Register* (74 FR 31723) to prepare a draft environmental impact statement for elemental mercury storage. This notice invited the public to participate in the public scoping process on the proposed management and storage alternatives for analysis in the draft EIS and included information on public scoping meeting dates and locations.

On January 29, 2010, DOE issued a Notice of Availability in the *Federal Register* (75 FR 4801) to notify the public of the issuance of the *Draft Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423-D; Draft Elemental Mercury Storage EIS) for public comment and announce public hearings. The Draft Elemental Mercury Storage EIS analyzed the storage of up to 10,000 metric tons (11,000 tons) of elemental mercury in a facility or facilities constructed and operated in accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (74 FR 31723). DOE evaluated seven government and commercial sites as the range of reasonable alternatives in the Draft Elemental Mercury Storage EIS. In the Draft Elemental Mercury Storage EIS, DOE identified the Waste Control Specialists (WCS) facility as its preferred alternative.

On January 28, 2011, DOE issued a Notice of Availability in the *Federal Register* (76 FR 5145) to notify the public of the issuance of the *Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423) (Final Elemental Mercury Storage EIS). The Final Elemental Mercury Storage EIS evaluated the same seven government and commercial sites for management and storage of elemental mercury and considered all public comments received on the Draft Elemental Mercury Storage EIS.

On June 5, 2012, DOE issued a Notice of Intent in the *Federal Register* (77 FR 33204) to prepare a supplement to the Final Elemental Mercury Storage EIS to evaluate additional alternatives for a facility at and in the vicinity of the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico, and to update some of the analyses presented in the Final Elemental Mercury Storage EIS. DOE announced the availability of the *Draft Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement* (DOE/EIS-0423-S1-D; Draft Elemental Mercury Storage SEIS) on April 19, 2013 (78 FR 23548) for public comment. The *Final Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement* (DOE/EIS-0423-S1; Final Elemental Mercury Storage SEIS) was published on October 4, 2013. The Final Elemental Mercury Storage SEIS did not change the DOE preferred alternative, which remained as the WCS facility near Andrews, Texas.

DOE prepared a *Supplement Analysis of the Final Long-Term Management and Storage of Elemental Mercury Environmental Impact Statement* (DOE/EIS-0423-SA-01; SA) to determine whether supplemental or new National Environmental Policy Act of 1969 (NEPA) documentation was required to address the proposal to manage and store elemental mercury. The SA provided an analysis of the potential impacts presented in the Final Elemental Mercury Storage EIS and Final SEIS to determine if there have been substantial changes to the proposal since 2013 or if there are significant new circumstances or information relevant to environmental concerns. The SA was prepared in accordance with the DOE NEPA implementing procedures at 10 CFR 1021.314(c) and concluded that there was not a substantial change to the proposal evaluated in the Final Elemental Mercury Storage EIS or Final SEIS or significant new circumstances or information relevant to environmental concerns that would require

preparation of an additional SEIS or new EIS. DOE determined that no further NEPA analysis was required.

Purpose and Need for Agency Action

MEBA prohibits the export of elemental mercury from the United States (subject to certain essential-use exemptions). MEBA also prohibits, as of October 14, 2008, any Federal agency from conveying, selling, or distributing 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 (with certain limited exceptions). Banning the export of elemental mercury from the United States is expected to result in surplus inventories of elemental mercury.

Section 5 of MEBA directs DOE to designate a DOE facility or facilities for the long-term management and storage of elemental mercury generated within the United States. In the Final Elemental Mercury Storage EIS, DOE identified a need to provide such a facility capable of managing an elemental mercury inventory estimated to range up to 10,000 metric tons (11,000 tons) for a 40-year period of analysis. In the SA, DOE updated the projected inventory of elemental mercury that could need future storage to 6,800 metric tons (7,480 tons) for a 40-year period of analysis.

Proposed Action

As identified in the Final Elemental Mercury Storage EIS, DOE proposes to construct one or more new facilities and/or select one or more existing facilities (including modification as needed) for the long-term management and storage of elemental mercury, as mandated by

Section 5 of MEBA. Any such facility(ies) must comply with applicable requirements of Section 5 of MEBA, including the requirements of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901 *et seq.*) and other permitting requirements.

Alternatives

On March 20, 2009 (74 FR 11923), DOE published a Request for Expressions of Interest seeking potential locations for the elemental mercury storage facility(ies) from interested Federal agencies and the private sector. In addition, DOE issued an internal memorandum requesting that DOE site offices determine if they have a facility(ies) that could be used for elemental mercury storage. At the same time, DOE developed objective criteria for identifying candidate sites within the scope of the Final Elemental Mercury Storage EIS. In addition to the No Action Alternative, DOE evaluated seven government and commercial sites as the range of reasonable alternatives in the Final Elemental Mercury Storage EIS: The DOE Grand Junction Disposal Site, Grand Junction, Colorado; the DOE Hanford Site, Richland, Washington; Hawthorne Army Depot, Hawthorne, Nevada; Idaho Nuclear Technology and Engineering Center and Radioactive Waste Management Complex at the DOE Idaho National Laboratory, Idaho Falls, Idaho; DOE Kansas City Plant, Kansas City, Missouri; DOE Savannah River Site, Aiken, South Carolina; and WCS, Andrews, Texas. The Final Elemental Mercury Storage SEIS evaluated additional alternatives for a facility at and in the vicinity of WIPP.

Existing buildings at the candidate locations were considered in the Final Elemental Mercury Storage EIS to store the elemental mercury. Recognizing that existing buildings may not be

available or adequate at some candidate locations, DOE also evaluated construction and operation of new facilities that would meet RCRA requirements.

Potential Environmental Impacts

The Final Elemental Mercury Storage EIS and SEIS evaluated the construction of a new facility and the use of existing facilities for the long-term management and storage of elemental mercury. The documents included the assessment of potential impacts from the transportation of the elemental mercury from the origin sites to the long-term storage location via either truck or rail. The analysis of potential environmental impacts included an evaluation of the following environmental resource areas: land use and visual resources; geology, soils, and geologic hazards; water resources; meteorology, air quality, and noise; ecological resources; cultural and paleontological resources; site infrastructure; waste management; occupational and public health and safety; ecological impacts; socioeconomics; and environmental justice. Based on analyses in the Final EIS and Final SEIS, the potential impacts on the various resource areas at each analyzed site from construction and operation of an elemental mercury storage facility(ies) would range from none to minor.

The SA further evaluated whether the proposed change in the quantity of elemental mercury to be stored and managed (to 6,800 metric tons from 10,000 metric tons) and potential use of two existing facilities (Container Storage Building and Bin Storage Unit 1) rather than one at WCS represented a substantial change to the proposal action relevant to environmental concerns or if there were significant new circumstances or information relevant to environmental concerns. While the SA found no effect on the potential impacts analyzed in the Final Elemental Mercury

Storage EIS and Final SEIS for many resource areas, it identified waste management and occupational and public health and safety as resource areas potentially affected.

Modification of the existing facilities would produce negligible quantities of nonhazardous waste. Operations of elemental mercury storage facilities are estimated to generate approximately 23 drums of hazardous waste and less than 16,000 gallons of liquid sanitary waste annually. Since elemental mercury storage would not involve any treatment or processing of elemental mercury, the rate of hazardous waste generation would be very low. Any hazardous waste would be disposed in a licensed facility. In addition, the existing sanitary waste systems at WCS have sufficient capacity to handle the projected liquid sanitary waste volume, therefore, the potential impacts to waste management would be negligible.

The potential impacts to occupational and public health and safety were presented in the Final Elemental Mercury Storage EIS, Final SEIS, and SA for normal operations, facility accidents, and intentional destructive acts. Normal operations would involve the receipt and long-term storage of elemental mercury. Exposures could arise during normal operating conditions from small amounts of mercury vapor accumulating in the storage areas. The estimated consequences to involved workers, noninvolved workers, or members of the public are predicted to be negligible.

Facility accidents could include elemental mercury spills inside or outside the storage building. The Final Elemental Mercury Storage EIS and Final SEIS report the potential risks to workers and the offsite public to be negligible-to-low for these spills for all alternatives. Similarly, the Final Elemental Mercury Storage EIS and SEIS report that human health risks of transportation

accidents would be negligible-to-low for all alternatives. The Final Elemental Mercury Storage EIS and Final SEIS analyzed intentional destructive acts and found that, while the probability of an intentional destructive act cannot be determined, consequences of such an act, were one to occur, were expected to be similar for all alternatives.

Environmentally Preferable Alternative

Constructing a new building would produce additional environmental impacts. Therefore, although the construction impacts are anticipated to be minimal, alternatives involving no construction are environmentally preferable. Although storage of the entire inventory of elemental mercury in an existing building at WCS was not evaluated in the Final Elemental Mercury Storage EIS and Final SEIS, DOE has subsequently learned that the existing Container Storage Building and Bulk Storage Unit could be used to store the entire inventory of elemental mercury. Transportation of elemental mercury to any of these existing buildings would result in negligible-to-low human health risks from transportation accidents. The potential impacts of operating these elemental mercury storage buildings would be similar regardless of the location.

The No Action Alternative would not involve the construction of a new facility for consolidation and storage of the elemental mercury. However, the No Action Alternative would still include transportation to and from elemental mercury storage sites, as described in Section 4.2.9.4 of the Final Elemental Mercury Storage EIS, and therefore would not be significantly different than the transportation impacts under the action alternatives. Under the No Action Alternative, elemental mercury would be stored indefinitely at multiple non-DOE facilities; therefore, the

biggest impact of the No Action Alternative would be widely dispersed storage. Taking this under consideration, the No Action Alternative would not be the environmentally preferable alternative.

Federal and State Permits, Consultations, and Notifications

MEBA prohibits the export of elemental mercury. Section 5 of the Act directs DOE to designate a facility(ies) for the long-term management and storage of elemental mercury generated within the United States. MEBA also requires that the facility(ies) be constructed and operated in accordance with the Solid Waste Disposal Act, as amended by RCRA.

Comments Received on the Final Elemental Mercury Storage EIS and Final SEIS

DOE received five comment letters after publishing the Final Elemental Mercury Storage EIS and Final SEIS. They included: (1) one letter from an individual that agreed with the DOE preferred alternative of the WCS site, (2) one letter from an individual that did not agree with potential selection of the WCS site, (3) one letter from the Environmental Protection Agency that indicated the agency had no additional comments, (4) one letter that requested modifications to the EIS mailing list, and (5) one letter from the Texas Parks and Wildlife Department notifying DOE that the federal listing status of two species had changed since the issuance of the Draft EIS. Since the use of existing buildings at the WCS site would not impact ecological resources, this change to the federal listing status of two species would not affect the potential impacts presented in the Final Elemental Mercury Storage EIS or Final SEIS. DOE has considered these comments and finds that they do not present "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its

impacts" within the meaning of 40 CFR 1502.9(c) and 10 CFR 1021.314(a) and therefore do not require preparation of a new or a supplemental EIS.

Decision

Based on consideration of the analysis in the Final Elemental Mercury Storage EIS, Final SEIS, and SA; DOE has decided to designate the WCS site near Andrews, Texas for the management and storage of up to 6,800 metric tons (7,480 tons) of elemental mercury and to manage and store the elemental mercury in leased portions of existing buildings, the Container Storage Building and Bin Storage Unit 1, at the WCS site. This decision is also based on other programmatic, policy, logistic, and cost considerations. For example, use of the Container Storage Building and Bin Storage Unit 1 avoids the costs associated with design and construction of a new facility and the utilization of an existing Basic Ordering Agreement with WCS simplifies the procurement process and allows DOE to mitigate some of the liabilities associated with the incentives added to MEBA, as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act.

Mitigation

All practicable means to avoid or minimize environmental harm from the alternative selected have been adopted. Because the Final Elemental Mercury Storage EIS and Final SEIS identified that potential environmental impacts associated with long-term management and storage of 10,000 metric tons of elemental mercury would be negligible-to-low, mitigation measures would not be required as part of this ROD.

Signed at Washington, DC on December 3, 2019.

William I. White,

Senior Advisor for Environmental Management

to the Under Secretary for Science.

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