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MERCURY MARKET MINIMIZATION ACT OF 2007

SEPTEMBER 22 (legislative day, SEPTEMBER 17), 2008.—Ordered to be printed

Mrs. BOXER, from the Committee on Environment and Public Works, submitted the following

R E P O R T

together with

MINORITY VIEWS

[To accompany S. 906]

[Including cost estimate of the Congressional Budget Office]

The Committee on Environment and Public Works, to which was referred the bill (S. 906) to prohibit the sale, distribution, transfer, and export of elemental mercury and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends the bill as amended do pass.

PURPOSE AND SUMMARY OF THE LEGISLATION

The purpose of S. 906, the Mercury Export Ban Act of 2007 is to prohibit the sale, distribution, and transfer of elemental mercury held by Federal agencies as of the date of enactment of this act. S. 906 would still allow for such transfers between Federal agencies for the purpose of storage. By 2010, S. 906 would also ban the export of elemental mercury and provide a long-term management and storage option for elemental mercury generated by private entities. The bill also allows the Administrator of the Environmental Protection Agency (EPA) to grant an exemption from the export prohibition by rule, after notice and opportunity for comment, if the Administrator finds that certain conditions have been met.

The bill directs the EPA to submit a report to Congress one year after the date of enactment that describes the sources and amounts of mercury compounds used, processed, and imported into and ex-

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ported from the United States. The report must also describe the potential for exported mercury compounds to be processed into elemental mercury. The legislation also directs EPA to submit a report to Congress three years after the effective date of the prohibition that describes the quantity of elemental mercury traded globally from primary mining, locations where that mining is conducted, and whether the mining has occurred as a consequence of the Act.

S. 906 directs the Secretary of Energy (Secretary) to accept custody, for the purpose of long-term management and storage, of elemental mercury generated in the U.S. and delivered to a Department of Energy facility designated by the Secretary, and to be funded by fees established under the legislation. The Secretary is to annually report on the costs incurred in the previous fiscal year related to the management and storage of elemental mercury. The Secretary must report by July 1, 2011, on the effect of the long-term storage program on mercury recycling, and provide proposals to mitigate negative impacts of the long-term storage program.

BACKGROUND AND NEED FOR THE LEGISLATION

Mercury exists in three basic forms. Elemental mercury is a very dense, shiny, silver-colored metal. Elemental mercury is the pure form of mercury (i.e., it is not combined with any other elements). A second form of mercury is inorganic mercury compounds. This form is created when elemental mercury is combined with other elements such as oxygen, chlorine, or sulfur. Inorganic mercury compounds are used in fungicides, disinfectant agents, and antiseptics. The third basic form is organic mercury compounds. These compounds are combinations of mercury and carbon. The most common organic mercury compound is methylmercury.

Mercury is a neurotoxin that is harmful to human health, including especially pregnant women, newborns, and children. Mercury exposure can harm human development and the nervous system. Infants and children are especially sensitive to mercury's impacts—even at low doses that do not harm adults. Prenatal exposures to low mercury concentrations can cause children to perform poorly in tests of attention, fine motor skills, language, and verbal memory. The EPA states: "There is some evidence that exposure to methylmercury also can affect the cardiovascular, immune, and reproductive system."

EPA has determined that children born to women with blood mercury concentrations above 5.8 parts per billion (ppb) are at some increased risk of adverse health effects. The EPA estimated that 8 percent of women of child-bearing age had at least 5.8 ppb (1999–2000). In 2006, there were 152 million women of child-bearing age—equaling 62 million women at risk. In 2005, researchers cited a study that found cord-blood mercury levels may be on average 70 percent higher than in maternal blood, and estimate that up to 637,233 infants each year are exposed to dangerous levels of mercury, though some in industry dispute this figure.[1]

[1]L. Trasande, P. Landrigan, and C. Schechter, "Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain," Environmental Health Perspectives, p. 590, v. 113, no. 5, (May 2005).

There are various sources of exposure to mercury, including through eating food and breathing air that contains mercury, and by ingesting dirt and other substances contaminated with mercury. Bioaccumulation causes mercury to become concentrated in predators, which can cause mercury concentrations thousands or millions of times greater than are found in the water. Eating mercury-tainted fish can be a substantial source of human exposure.

According to the EPA: "Most of the large industrial sources of mercury emissions are sites where mercury is emitted as a byproduct of combustion processes. Other major sources of mercury include industrial processes and product that use mercury deliberately, such as certain chlor-alkali chlorine manufacturing processes, batteries, lamps, and measuring devices such as thermometers. Mercury is also released through mining practices, sewage discharge, and metal refining operations. In the U.S., there are more than 100 manufacturing processes that use some form of mercury."

In 2006, the US Geological Survey (USGS) found that the US imported 94 metric tons (mt) of mercury and exported 390 mt. The US imported 118 mt of calomel, which can contain up to 80 percent mercury. Mercury is also reclaimed from several sources, including automobile switches, dental amalgam, lights, lab and medical devices, and thermostats. Calomel is also collected from pollution control devices at gold smelters.

According to the USGS, domestic mercury consumption is estimated to be 50 percent for chlorine manufacturing and 50 percent in other uses. The chlorine industry purchases about 100 tons of replacement mercury each year. EPA reports that there are currently 10 domestic facilities that use mercury to create chlorine, and that one of those has temporarily suspended its mercury cell operations.[2]

Under the federal Toxic Release Inventory, industry reports releasing or otherwise managing more than 5 million pounds of mercury in 2006. According to EPA, large electric utilities release roughly 50 tons of mercury a year. In 1997, EPA estimated that chlor-alkali plants were the fifth largest source of mercury emissions. However, reported mercury emissions may not account for substantial fugitive emissions (through holes, cracks in pipes and joints, for example). In 2003, EPA stated: "The issue of unaccounted for mercury has been the subject of intense scrutiny from other groups within EPA and the industry . . . [but] the fate of all the mercury consumed at mercury cell chlor-alkali plants remains somewhat of an enigma."

Domestic supplies of elemental mercury are sold to metals recyclers and brokers who sell the mercury to buyers internationally. Large amounts of the surplus elemental mercury from the United States and other industrialized nations ends up in developing countries through this process. This mercury can be sold to artisanal and small-scale gold miners located primarily in Africa, Asia, and South America. These miners and their family members are usually unaware of the dangers of mercury exposure, and are unprepared to safely handle mercury.

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[2]EPA, "Cleanup of Mercury-Contaminated Chlor-Alkali Sites," available online at *http://www.epa.gov/epaoswer/hazwaste/mercury/cleanup.htm.*

According to the United Nations Environment Program (UNEP), artisanal and small-scale gold mining involves an estimated 10 to 15 million people, including 4.5 million women and 1 million children. This use of mercury creates extensive occupational health hazards, polluted sites, and contaminated ecosystems. UNEP estimates that artisanal and small-scale mining operations volatize as much as 300 metric tons of mercury into the atmosphere, and discharge as much as 700 metric tons of mercury from mining tailings into soil, rivers, and lakes.

While mercury emissions create localized "hot spots," they can also be transported over long distances and can remain in the atmosphere for long periods of time. Once deposited, mercury can contaminate water bodies and land, and enters the food chain.

The most common route of mercury exposure in the United States is through consumption of mercury-contaminated fish. EPA's 2007 National Listing of Fish Advisories demonstrates that 48 States, one Territory, and two Tribes have issued mercury fish advisories, covering 14,177,175 lake acres and 882,963 river miles.

Other governments have also acted to stem the flow of mercury. The European Union's legislative body, the European Parliament, voted in June of 2007 to prohibit the export of elemental mercury and mercury compounds by 2010. The European Parliament also adopted a safe storage requirement for holders of excess elemental mercury. The Environmental Ministers for the member nations of the European Union have proposed that the mercury export prohibition take effect in 2011.

SUMMARY OF MAJOR PROVISIONS OF THE BILL

The bill prohibits the sale, distribution, and transfer of elemental mercury held by Federal agencies as of the date of enactment. S. 906 would still allow for such transfers between Federal agencies for the purpose of storage. By 2010, S. 906 would also ban the export of elemental mercury and provide a long-term management and storage option for elemental mercury generated by private entities. The bill also allows the Administrator of the Environmental Protection Agency (EPA) to grant an exemption from the export prohibition by rule, after notice and opportunity for comment, if the Administrator finds that certain conditions have been met.

S. 906, the Mercury Export Ban Act of 2007, also directs the EPA to submit a report to Congress one year after the date of enactment that describes the sources and amounts of mercury compounds used, processed, and imported into and exported from the United States. The report must also describe the potential for exported mercury compounds to be processed into elemental mercury. The Act also requires EPA to report by 2013 on the global supply and trade of elemental mercury, including the amount that originates from primary mining and whether additional primary mining has occurred as a consequence of this Act.

S. 906 directs the Secretary to accept custody, for the purpose of long-term management and storage, of elemental mercury generated in the U.S. and delivered to a facility Department of Energy facility designated by the Secretary, and to be funded by fees established under the legislation. S. 906 also directs the Secretary to annually report on the costs incurred in the previous fiscal year related to the management and storage of elemental mercury. The

Secretary must report by July 1, 2011, on the effect of the long-term storage program on mercury recycling, and provide proposals to mitigate negative impacts of the long-term storage program.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 establishes the short title of the Act as the "Mercury Export Ban Act of 2007".

Section 2. Findings

This section contains findings related to mercury pollution, health effects attributed to mercury, and global use of elemental mercury.

Section 3. Prohibition on sale, distribution, or transfer of elemental mercury

This section provides that effective beginning from the date of enactment of this legislation, 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. An exception is made for a transfer between Federal agencies of elemental mercury for the sole purpose of facilitating storage of mercury to carry out the Act.

Section 4. Prohibition on export of elemental mercury

Section 4 establishes a new subsection (c) in Section 12 of the Toxic Substances Control Act. This new subsection would prohibit the export of elemental mercury from the United States beginning January 1, 2010. The export ban does not affect the sale, recovery, or other use of mercury in the United States. Further, the Committee does not intend that this prohibition prevent exportation of coal or fly ash, a by-product of coal combustion, or manufactured consumer products containing elemental mercury.

New subsection (c)(3) requires the EPA to submit a report to Congress one year after enactment addressing:

(i) the sources and amounts of mercury compounds that may be used in significant quantities in products and processes produced annually in the United States or imported into the United States;

(ii) the purposes for which each of these compounds are used domestically and the amount of these compounds consumed annually;

(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 information that Congress should consider in determining whether to extend export prohibition to include one or more of these mercury compounds.

The Administrator may utilize the information gathering authorities of the Toxic Substances Control Act for the purpose of preparing the report.

New subsection (c)(4) allows any person residing in the United States to petition the Administrator for an exemption from the prohibition on export of elemental mercury. The Administrator may grant by rule, after notice and opportunity for comment, an exemption for a specified use at an identified foreign facility if each of the following findings is satisfied:

(i) non-mercury 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 and not otherwise diverted for other uses for any reason;

(v) the elemental mercury will be used, 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 effects; and

(vi) 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.

The Administrator must also include in the exemption 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. No single exemption can exceed 3 years in duration and 10 metric tons of elemental mercury.

The Administrator may by order suspend or cancel an exemption in the case of a violation of the subsection, a violation of the terms and conditions of an exemption, or the submission of false information. Violations of the statutory requirements or the terms and conditions of an exemption, or the submission of false information in connection therewith are a prohibited act under Section 15 of the Toxic Substances Control Act. Such violations shall be subject to penalties, injunctive relief, and citizen suits as provided in the Toxic Substances Control Act.

In new subsection (c)(5) existing provision of law refers to any law in existence before the enactment of this Act. It is the intent of the Committee to not affect, replace, or amend existing law relating to the need for consistency with international trade obligations.

New subsection (c)(6) provides that nothing in the subsection shall be construed to prohibit the export of coal.

Section 5. Long-term storage

Section 5(a) requires the Secretary of Energy not later than January 1, 2010, to accept custody, for the purpose of long-term management and storage, of elemental mercury generated within the United States and delivered to a facility of the Department of Energy designated by the Secretary. The Committee purposely did not designate any particular facility of the Department of Energy but left that choice in the discretion of the Secretary.

Subsection (b)(1) requires the Secretary, after appropriate consultation with interested parties, to assess and collect a fee at the

time of delivery to cover the pro rata cost of long-term management and storage of elemental mercury delivered to the facility.

Subsection (b)(2) provides that the amount of the fees is to be made publicly available not later than October 1, 2009, and may be adjusted annually. The costs covered by the fee are the costs to the Department of Energy of providing management and storage for the elemental mercury delivered to the facility, including enumerated costs such as 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, 42 U.S.C. Sec. 6901 et seq. (1976), 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 created by this section, cannot be accomplished without construction of a new building or buildings.

Subsection (c) requires the Secretary to report annually to the appropriate Committees of jurisdiction on all of the costs incurred in the previous fiscal year associated with the long-term management and storage of elemental mercury, including a separate accounting of the costs associated with activities taken under this section.

Subsection (d) requires the Secretary not later than October 1, 2009, after consultation with EPA and all appropriate State agencies in affected States, to make guidance available to potential users of the program setting forth procedures and standards for the receipt, management, and long-term storage of elemental mercury at a designated facility or facilities. The procedures must be protective of human health and the environment and shall ensure that the elemental mercury is stored in a safe, secure, and effective manner. Additionally, the elemental mercury managed and stored at a designated facility shall be subject to the requirements of the Solid Waste Disposal Act. The only exception is set forth in subsection (g)(2) which provides that the elemental mercury 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.

Subsection (d)(1) further provides that a designated facility in existence on or before January 1, 2010, 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. The Administrator of EPA (or an authorized State) is required to issue a final decision on the permit application not later than January 1, 2012.

Subsections (d)(2), (3), and (4), provide for the conduct of operational and emergency training, assurance that the designated facility will have necessary equipment, and the installation of fire detection systems and fire suppression systems, respectively.

Subsection (e) provides indemnification for persons delivering elemental mercury for a claim that results from, or is in a 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). This indemnification provision is modeled on Section 330 of the National Defense Authorization Act of Fiscal Year 1993, Pub. L. No. 102–484, 106 Stat. 2315, 2371–73 (1992) (codified as amended at 10 U.S.C. § 2687 note (2000)). Indemnification is not applicable to a person who has contributed to any such release or threatened release.

Subsection (e)(2) provides that no indemnification may be afforded unless the person seeking indemnification follows certain procedures and provides certain information concerning the claim, loss, or damage, and provides the Secretary access to records and personnel. Subsection (e)(3) gives the Secretary the authority to settle or defend the claim for personal injury or property damage 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.

Subsection (f) authorizes the Secretary to establish such terms, conditions, and procedures as are necessary to carry out this section.

Subsection (g)(1) provides that except as provided in paragraph (2), nothing in the section changes or affects any Federal, State, or local law or the obligation of any person to comply with such law. Paragraph (2) allows a generator accumulating elemental mercury destined for a facility designated by the Secretary to store mercury for a period of 90 days or less. Further, paragraph (2) provides authority to store elemental mercury at a facility that has been issued a permit under section 3005(c) of the Solid Waste Disposal Act, notwithstanding section 3004(j) of that Act, if the Secretary is unable to accept mercury at a facility designated by the Secretary for reasons beyond the control of the owner or operator of the permitted facility. The owner or operator of the permitted facility must also make certain certifications set forth in subsection (g)(2)(B)(ii) and (iii) and comply with them to benefit from this provision.

Subsection (h) requires the Secretary, in consultation with the Administrator of EPA, to report to Congress by July 1, 2011, on the effect of the long-term storage program on mercury recycling and include proposals, if necessary, to mitigate any negative effect.

Section 6. Report to Congress

This section requires the EPA Administrator to report by January 1, 2014, on the global supply and trade of elemental mercury and whether additional primary mining has occurred as a consequence of this Act.

LEGISLATIVE HISTORY, COMMITTEE VIEWS AND VOTES

COMMITTEE VIEWS

The committee believes that the nation must do more to protect human health and the environment from mercury emissions. S. 906 is an important step in reducing the use of mercury that contributed to increased risk in the United States from exposure to mercury. The bill also will help to protect women, children, and others in other countries that end up being exposed to mercury exported from the United States.

By reducing the potential for mercury to be released back into the environment and elsewhere, the Committee believes that the legislation will help states address mercury contamination problems. Twenty-three States have issued statewide advisories for all freshwater lakes and/or rivers, and 12 States have statewide advisories for mercury in coastal waters. The 23 States with statewide freshwater advisories are: Connecticut, Florida, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, Vermont, Washington, Wisconsin, and West Virginia. The 12 States with coastal water advisories are: Alabama, Florida, Georgia, Louisiana, Maine, Massachusetts, Mississippi, New Hampshire, North Carolina, Rhode Island, South Carolina, and Texas. Hawaii also has a statewide advisory for mercury in marine fish.

The Federal Government can and should do more to help States address these serious threats to public health. S. 906 will help accomplish this by reducing the flow of mercury in commerce, which will reduce opportunities for people and wildlife to be exposed to mercury.

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. 906 also builds on past Federal agency decisions to stop selling mercury. The Department of Defense stopped selling surplus mercury in 1994 because of environmental and public health concerns. Since December 2006 the Department of Energy has said that it would continue to store its mercury rather than sell it. Consistent with these departmental policies, the Mercury Export Ban Act of 2008 would ensure that the Federal Government's elemental mercury remains in storage by prohibiting the sale, distribution, and transfer of elemental mercury held by Federal agencies, as of the date of enactment. Transfer of elemental mercury between Federal agencies would continue to be allowed for the sole purpose of facilitating storage of elemental mercury to carry out this Act.

S. 906 will also help to address potentially large infusions of mercury into the world marketplace. According to the United States Geological Survey, approximately 3,000 tons of mercury that could become available for recycling is contained in the remaining nine U.S. mercury-cell chlorine-caustic soda plants. These plants use mercury to mercury-cell technology to produce chlorine, caustic soda, and other chemicals. However, there are a number of widely-used alternatives to mercury-cell technology, and the chlorine industry continues to shift to using these technologies. S. 906 will provide an important storage site that private industry can use to reduce the use of this dangerous metal.

Other non-governmental sources of elemental mercury include the mining industry, mercury recycling and recovery operations. There are no mercury mines in the United States. Elemental mercury is, however, generated as a by-product of gold mining. EPA estimates that approximately 118 metric tons of elemental mercury was generated as a by-product of gold mining in 2006.

Further, S. 906 specifically provides that the legislation's prohibition on the conveyance, sale, distribution, or transfer of elemental mercury does not prohibit the leasing of coal, and does not prevent exportation of coal or fly ash, a by-product of coal combustion, or manufactured consumer products containing elemental mercury.

Elemental mercury is also generated through recycling products and waste recovery programs. Such material includes certain thermometers, fluorescent light bulbs, auto switches, electronics, and other products. EPA estimates that product recycling and waste recovery produced between 50 and 200 metric tons in 2006. S. 906 can help build capacity to store mercury from all such industries.

HISTORY AND VOTES

On March 15, 2007, Senators Obama and Murkowski introduced S. 906. Senators Boxer, Biden, and Salazar later cosponsored the measure. The bill was referred to the Committee on Environment and Public Works.

On July 31, 2008, the Committee on Environment and Public Works held a business meeting and considered Chairman Boxer's amendment in the nature of a substitute to S. 906. Senator Alexander offered an amendment to prohibit the storage of mercury at a certain facility in Tennessee, which failed by voice vote. Senator Barrasso offered two amendments, one that (as amended by a second degree amendment that was unanimously accepted) clarified that the prohibition on conveyance, sale, distribution, or transfer of elemental mercury by federal agencies excludes coal. The other clarified that the prohibition on conveyance, sale, distribution, or transfer of elemental mercury does not prohibit the leasing of coal. The Committee adopted both amendments by unanimous consent. The Committee favorably adopted the Boxer Substitute amendment, as amended by the two Barrasso amendments, by voice vote.

On May 13, 2008, the Committee held a legislative hearing titled, "Hearing on Mercury Legislation," which S. 906. On May 16, 2007, the Subcommittee on Clean Air and Nuclear Safety held an oversight hearing titled, "State of Mercury Regulation and Science."

REGULATORY IMPACT STATEMENT & COST OF LEGISLATION

In compliance with section 11(b) of rule XXVI of the Standing Rules of the Senate, the committee notes that the Congressional Budget Office has found that S. 906 "would prohibit the export of elemental mercury from the United States beginning in 2010. Based on information from the U.S. Geological Survey, CBO estimates that the cost of that mandate would fall below the annual threshold established in UMRA ($136 million in 2008, adjusted annually for inflation)."

MANDATES ASSESSMENT

In compliance with the Unfunded Mandates Reform Act of 1995 (Public Law 104–4), the Committee notes that the Congressional Budget Office has said that "S. 906 contains no intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would not affect the budgets of state, local, or tribal governments. S. 906 would impose a private-sector mandate as de-

fined in UMRA. It would prohibit the export of elemental mercury from the United States beginning in 2010. Based on information from the U.S. Geological Survey, CBO estimates that the cost of that mandate would fall below the annual threshold established in UMRA ($136 million in 2008, adjusted annually for inflation)."

CONGRESSIONAL BUDGET OFFICE ESTIMATE

S. 906—Mercury Export Ban Act of 2008

Summary: S. 906 would ban the export of elemental mercury, prohibit federal agencies from selling or distributing mercury, and direct the Department of Energy (DOE) to provide permanent storage for domestic stocks of mercury under certain conditions. Under this bill, firms would be allowed to begin delivering mercury to DOE on January 1, 2010, and would be required to pay a one-time fee sufficient to cover most of the department's long-term costs of storing it. DOE would indemnify those entities from legal actions resulting from any actual or threatened release of mercury occurring after the materials are delivered to the federal facility. In addition, DOE's mercury storage operations would have to comply with various performance standards, including the Solid Waste Disposal Act. Finally, the bill would direct DOE and the Environmental Protection Agency (EPA) to prepare reports on issues related to the storage of domestic mercury and the disposition of global supplies.

Implementing this bill would affect both discretionary spending and direct spending. Assuming appropriation of the necessary amounts, CBO estimates that DOE would spend $8 million over the 2009–2013 period and additional amounts thereafter to provide for the permanent storage of commercially generated mercury. CBO also estimates that enacting this bill would reduce net direct spending by $8 million over the 2009–2018 period by increasing offsetting receipts (an offset to direct spending) from the one-time fee that would be paid by firms transferring mercury to DOE. Enacting this legislation would not affect revenues.

S. 906 contains no intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would not affect the budgets of state, local, or tribal governments.

S. 906 would impose a private-sector mandate as defined in UMRA. It would prohibit the export of elemental mercury from the United States beginning in 2010. Based on information from the U.S. Geological Survey, CBO estimates that the cost of that mandate would fall below the annual threshold established in UMRA ($136 million in 2008, adjusted annually for inflation).

Estimated cost to the Federal Government: The estimated budgetary impact of S. 906 is shown in the following table. The costs of this legislation fall within budget functions 270 (energy) and 300 (natural resources and environment).

	By fiscal year in millions of dollars—					
	2009	2010	2011	2012	2013	2009–2013
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Estimated Authorization Level	0	2	2	3	2	9
Estimated Outlays	0	1	2	3	2	8

	By fiscal year in millions of dollars—					
	2009	2010	2011	2012	2013	2009–2013
CHANGES IN DIRECT SPENDING [1]						
Estimated Budget Authority	0	0	*	−2	−2	−4
Estimated Outlays	0	0	*	−2	−2	−4

[1] CBO estimates that enacting this bill would result in a net increase in offsetting receipts of $8 million over the 2009–2018 period.
Note: * = between zero and −$500,000.

Basis of estimate: For this estimate, CBO assumes that the amounts necessary to implement the bill will be appropriated each year. Estimated outlays reflect historical spending patterns for similar activities.

S. 906 would require DOE to take custody of commercial stocks of domestic mercury, subject to certain conditions. According to reports from EPA-sponsored stakeholders' meetings held in 2007, the cumulative volume of mercury eligible for DOE storage would probably range between 7,500 metric tons and 10,000 metric tons. The amounts likely to be delivered over the next several years are difficult to predict because they would depend on investment decisions made by individual firms. Based on information in those reports, CBO expects that the demand for permanent storage would total about 1,700 metric tons over the next 10 years.

For this estimate, CBO assumes that DOE could store an additional 1,200 metric tons of mercury in its existing mercury storage building in Oak Ridge, Tennessee, but would have to build or renovate additional facilities to accommodate the remainder. Thus, we expect that DOE would have to begin developing new capacity within the next five years and would start receiving materials at the new facility sometime after 2013. Any fees collected for mercury delivered to DOE's existing storage facility would be deposited in the Treasury as offsetting receipts, which would reduce direct spending. (By contrast, fees paid for materials delivered to a new or renovated facility would be contingent on appropriation actions, and would be collected after 2013.)

Spending subject to appropriation

Based on information from DOE, EPA, and the stakeholders' meetings, CBO estimates that implementing this bill would require the appropriation of about $9 million over the 2009–2013 period and additional sums over the life of the mercury storage operation. CBO expects that DOE would have to spend about $2 million to develop guidelines, reports, and analyses required by the bill; another $2 million for building upgrades, training, and staff needed to store the commercial mercury in a manner consistent with the environmental and safety standards in the bill; and roughly $5 million to plan and develop new storage capacity. In addition, CBO estimates that EPA would spend less than $500,000 a year to develop the guidelines and reports required by the bill. Estimated spending for DOE and EPA activities would total $8 million over the next five years.

DOE's costs could exceed the amounts included in this estimate if state or federal regulatory agencies determined that other upgrades to its Oak Ridge facility were needed to comply with the new performance standards. For example, replacing the department's 40-year-old mercury storage flasks would cost about $21

million according to DOE. Whether such costs would be incurred is unknown, and such potential costs are not included in this estimate.

Direct spending

S. 906 would affect direct spending in two ways. First, any fees collected for mercury delivered to the existing storage facility at Oak Ridge would increase offsetting receipts (a credit against direct spending). Second, the provisions requiring DOE to indemnify those firms from certain environmental actions could result in a net cost to the government if the fees do not fully cover DOE's liabilities under this legislation.

Proceeds from the one-time storage fees would depend on how much DOE would charge. S. 906 would direct the department to set fees sufficient to cover the long-term costs of permanently storing the commercial stocks of mercury, excluding regulatory compliance and land acquisition expenses. The legislation would not limit the time for cost recovery (storage of this toxic element would continue indefinitely), or allow for any other adjustments to the cost calculation. CBO expects that the fees necessary to cover the cost of permanent storage would likely exceed the amount that industry would be willing to pay. For this estimate, however, CBO assumes that DOE would accept custody of the mercury that could be stored at its Oak Ridge facility and would set the fee at about $3 per pound (or $6,600 per metric ton), which is at the high end of the range shown in reports from the stakeholders' meetings but less than a fee that would be needed to fully offset the agency's costs. At that level, we estimate that the fee would generate offsetting receipts of $8 million over the 2011–2018 period.

Based on guidelines issued by EPA and the Office of Management and Budget, CBO assumes that DOE would set fees sufficient to compensate the government for the environmental liabilities associated with storing commercial mercury. Thus, CBO estimates that the government's indemnification of owners of mercury from environmental liability under this bill would have no net impact on direct spending over the 2009–2018 period.

Estimated impact on state, local, and tribal governments: S. 906 contains no intergovernmental mandates as defined in UMRA and would not affect the budgets of state, local, or tribal governments.

Estimated impact on the private sector: S. 906 would impose a private-sector mandate as defined in UMRA. It would prohibit, with some exceptions, the export of elemental mercury from the United States beginning in 2010. The cost of the mandate to the private sector would be the loss of net income to entities currently involved in exporting mercury and, in some cases, the cost to those exporters of storing the mercury that cannot otherwise be sold. Information from the U.S. Geological Survey indicates that the value of mercury exports was less than $10 million in 2006. Further, CBO expects that the cost of storage would not be substantial. Consequently, CBO estimates that the cost of the mandate would fall below the annual threshold established in UMRA ($136 million in 2008, adjusted annually for inflation).

Previous CBO estimate: On November 9, 2007, CBO transmitted a cost estimate for H.R. 1534 as ordered reported by the House Committee on Energy and Commerce on October 30, 2007. The two

bills are nearly identical, and the cost estimates for each bill are the same although we would now expect a later implementation date.

Estimate prepared by: Federal Costs: Kathleen Gramp (DOE costs) and Susanne Mehlman (EPA costs); Impact on State, Local, and Tribal Governments: Burke Doherty; Impact on the Private Sector: Amy Petz.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

SENATOR ALEXANDER'S MINORITY VIEWS

Mercury is dangerous, especially to children and women of childbearing age. It's very likely that every part of Tennessee is experiencing some mercury deposition from coal-fired power plants. That's why I've joined in sponsoring legislation putting stiff limits on mercury emissions in every two-year Congress since I was elected in the Senate, beginning with the Clean Air Planning Act of 2003 that I introduced with Senator Carper. That's also why I support the goals of the Mercury Market Minimization Act, which would address the problem of mercury emitted into the environment overseas by banning the export of elemental mercury from the United States. However, I am unable to support S. 906 in its current form unless it includes language that would prevent the nation's mercury from being sent to the Y–12 National Security Complex in Oak Ridge, Tennessee.

Although Y–12 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. There are several reasons why this doesn't make sense.

First, it would be inconsistent with the current mission of Y–12, which is to deal with highly enriched uranium weapons parts and dismantling those parts. This is an important and hazardous mission that Y–12 undertakes as a key part of providing our nation's nuclear deterrent. The only reason that DOE now stores some mercury at Y–12 in Oak Ridge is that this mercury is left over from previous Cold War activities. It is in the process of being removed.

Second, it would interfere with the consolidation of the Y–12 campus. There is an ongoing plan to reduce the footprint of that site by more than 60 percent. This plan will save the taxpayers money, improve security, and allow Y–12 personnel to concentrate on their primary missions relating to highly enriched uranium and plutonium. Y–12 does not need additional unrelated work like storing mercury at a time when it is trying to downsize. The current mercury storage building, which the CBO projected would be used to store the rest of the nation's mercury, is inside the Y–12 protected area that Y–12 is trying to reduce. Putting the rest of the nation's mercury there will interfere with the footprint reduction effort. Also, protecting a large secure complex like Y–12 is costly, and it makes no sense to put more mercury—which does not require high security—inside a high security area.

Third, Oak Ridge is still dealing with the cleanup from mercury contamination of buildings, soil, and water leftover from its activities during the Cold War. It is Oak Ridge's most significant environmental problem, and we don't want to be adding mercury at a time when Oak Ridge is still cleaning it up. The current mercury cleanup effort at Y–12 will take another 10 years and cost $100

million, and the government is already having trouble funding it. During the Cold War, Poplar Creek in Oak Ridge received hundreds of thousands of pounds of mercury, and it all eventually made its way to Watts Bar Reservoir. Today, Watts Bar sediment is so contaminated that we have restrictions on disturbing it to build a boat dock. To force the Department of Energy to reverse course at Y–12 and take on additional mercury is counterproductive to the cleanup effort that currently goes on there.

Finally, the Y–12 site is already doing its share of the nation's job of storing mercury because it has 1,200 tons of mercury—nearly one-fifth of the nation's stockpile—left over from previous cold war lithium processing. Y–12 stopped using mercury for lithium operations in about 1960, and ever since has been storing it, disposing of some of it, and cleaning up the rest of it (which is far from being done). So we will take our share of the responsibility for dealing with the 1,200 tons of mercury that are already there, left over from the Cold War nuclear weapons operations. What we are saying is that there is rumor of a railroad train that would have all of the nation's mercury go to Y–12 at a time when we are still trying to clean it up. We believe Oak Ridge is already doing its share, and the rest of the country should share part of the burden.

There are other avenues for achieving the goals of S. 906 that don't require sending the nation's mercury to Y–12. In 2006, the Environmental Protection Agency (EPA) published its "Roadmap for Mercury," a comprehensive approach to dealing with mercury in our environment. As part of that effort, the EPA convened a series of stakeholder meetings with industry and academia in order to consider options for including non-federal storage of mercury—which makes sense if one considers that Europe has concluded that excess mercury should be stored or disposed of by industry and not government. The EPA is not finished with this work, and for us to legislate on this subject before the EPA is finished (considering that the EPA may have a different opinion from ours in the end) could end up wasting an enormous amount of taxpayer money.

In addition, it's not necessary that all the mercury goes to one place. Some estimates suggest that up to 100 tons of excess mercury is produced annually each year from private gold mining activities, most of which occur in Nevada and other western states. It would make sense to consider storing that mercury in-state rather than shipping it across the country to Y–12, which is struggling to adequately store the mercury it already has.

I continue to support the goals of the Mercury Market Minimization Act, and am confident that the legislation can be modified in a way that doesn't place an undue burden on Y–12 and the people of Oak Ridge, Tennessee—who are already doing their fair share for the country when it comes to mercury storage and preserving our nation's nuclear weapons deterrent.

LAMAR ALEXANDER.

CHANGES IN EXISTING LAW

In compliance with section 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows: Existing law proposed to be omitted is enclosed in [black brackets], new matter is printed in *italic*, existing law in which no change is proposed is shown in roman:

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TOXIC SUBSTANCES CONTROL ACT

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SEC. 6. REGULATION OF HAZARDOUS CHEMICAL SUBSTANCES AND MIXTURES.

(a) SCOPE OF REGULATION.—* * *

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(e) POLYCHLORINATED BIPHENYLS.—(1) Within six months after the effective date of this Act the Administrator shall promulgate rules to—

(A)* * *

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(f) MERCURY.—

(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.

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SEC. 12. EXPORTS.

(a) IN GENERAL.—(1) Except as provided in paragraph (2) and [subsection (b)]*subsections (b) and (c)*, this Act (other than section 8) shall not apply to any chemical substance, mixture, or to an article containing a chemical substance or mixture, if—

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(c) PROHIBITION ON EXPORT OF ELEMENTAL MERCURY.—

(1) PROHIBITION.—Effective January 1, 2010, 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—

(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.

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