

**Supporting Statement for a Request for  
OMB Review under the Paperwork Reduction Act**

**1. IDENTIFICATION OF THE INFORMATION COLLECTION**

**1(a) Title and Number of the Information Collection**

**Title: Collection of Information for TSCA Mercury Inventory Reporting Rule**

**EPA ICR No. 2567.01      OMB Control No.: 2070-NEW**

**1(b) Short Characterization/Abstract**

As directed in the June 2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act amendments to the Toxic Substances Control Act (TSCA), the U.S. Environmental Protection Agency (EPA) is developing a rule to require reporting to assist in the preparation and publication in the Federal Register an “inventory of mercury supply, use, and trade in the United States.”<sup>1</sup> Based on the inventory of information collected, the Agency is directed to “identify any manufacturing processes or products that intentionally add mercury” and “recommend actions, including proposed revisions of Federal law or regulations, to achieve further reductions in mercury use.”<sup>2</sup>

The title for this rule is Mercury; Reporting Requirements for the TSCA Mercury Inventory. EPA must publish an initial mercury inventory not later than April 1, 2017 and publish updates every 3 years thereafter.<sup>3</sup> The Agency published its initial inventory report, “Mercury – U.S. Inventory Report: Supply, Use, and Trade,” on March 29, 2017.<sup>4</sup>

TSCA section 8(b)(10)(A) states “notwithstanding [TSCA] section 3(2)(B), the term ‘mercury’ means . . . elemental mercury; and . . . a mercury compound.”<sup>5</sup> As such, the definition for mercury at TSCA section 8(b)(10)(A) supersedes the exclusions for “chemical substances” described in TSCA section 3(2)(B) that would otherwise apply to mercury, mercury-added products, or intentional uses of mercury in manufacturing processes. In particular, this interpretation would not exclude any “drug, cosmetic, or device” as described in TSCA section 3(2)(B)(vi), should such items contain mercury. Hereinafter, the use of the term “mercury” will refer to both elemental mercury and mercury compounds.

The proposed rule would require reporting from any person who manufactures (including imports) mercury or mercury-added products, as well as any person who otherwise intentionally uses mercury in a manufacturing process.<sup>6</sup> The Agency must promulgate the reporting rule not later than two years after the date of enactment of the amendments (June 22, 2018)<sup>7</sup> and, to avoid duplication, shall coordinate the reporting with the Interstate Mercury Education and Reduction Clearinghouse (IMERC).<sup>8</sup>

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<sup>1</sup> 15 U.S.C. § 2607(b)(10)(B) and (D).

<sup>2</sup> 15 U.S.C. § 2607(b)(10)(C).

<sup>3</sup> 15 U.S.C. § 2607(b)(10)(B).

<sup>4</sup> EPA. Mercury; Initial Inventory Report of Supply, Use, and Trade. (82 Fed. Reg. 15522; March 29, 2017).

<sup>5</sup> 15 U.S.C. § 2607(b)(10)(A).

<sup>6</sup> 15 U.S.C. § 2607(b)(10)(D)(i).

<sup>7</sup> *Ibid.*

<sup>8</sup> 15 U.S.C. § 2607(b)(10)(D)(ii).

Prior to developing its initial inventory report, EPA reviewed federal and state reports and databases, among other sources, in order to assemble a collection of available information on mercury, mercury-added products, and manufacturing processes involving mercury.<sup>9</sup> Those sources include three databases applicable to mercury: the Chemical Data Reporting (CDR) rule and Toxics Release Inventory (TRI) program, and the U.S. International Trade Commission Interactive Trade (USITC) DataWeb. In reviewing data obtained, the Agency found that its baseline of data lacked the specificity and level of detail required to develop a mercury inventory responsive to TSCA section 8(b)(10)(D) or to be useful to recommend mercury use reduction efforts for both the public and private sectors.<sup>10</sup> The Agency considers the national mercury inventory mandated by Congress to be an instrumental means to establish the requisite body of information to achieve those goals. As such, EPA is committed to further addressing such data gaps and to reduce the use of mercury in mercury-added products and manufacturing processes, as directed by TSCA section 8(b)(10)(C).

EPA is particularly interested in the amount of mercury in mercury-added products, as well as identifying various categories and subcategories of products. That amount would include quantities of mercury used to manufacture (other than import) mercury-added products in the United States, as well as quantities contained in imported and exported mercury-added products. Additionally, EPA determined that mercury used in manufacturing processes may not be reflected in amounts of mercury reported in other data collection systems. The inventory supported by the proposed rule would help to close such data gaps by requiring periodic reporting from “any person who manufactures mercury or mercury-added products or otherwise intentionally uses mercury in a manufacturing process.”

EPA would use the collected information to fulfill statutory requirements to “every 3 years [after April 1, 2017], the Administrator shall carry out and publish in the Federal Register an inventory of mercury supply, use, and trade in the United States” and “identify any manufacturing processes or products that intentionally add mercury; and . . . recommend actions, including proposed revisions of Federal law or regulations, to achieve further reductions in mercury use.”<sup>11</sup> The Agency may also use such information to prioritize where and how measures are applied in order to help prevent potential risks of mercury exposure to human health and the environment. EPA continues to pursue measures to reduce the use of mercury in various media, including mercury-added products and manufacturing processes. As such, EPA intends to use information collected under the proposed rule to continue to reduce the use of mercury in products and processes and to facilitate reporting on implementation of the Minamata Convention on Mercury (Minamata Convention), to which the United States is a Party.<sup>12</sup> The Minamata Convention is an international environmental agreement that has as its objective the protection of human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.

## **2. NEED FOR AND USE OF THE COLLECTION**

### **2(a) Need/Authority for the Collection**

EPA is issuing a proposed rule under TSCA section 8(b)(10) to require reporting to assist in the preparation of “an inventory of mercury supply, use, and trade in the United States,” where “mercury” is defined as “elemental mercury” and “a mercury compound.” This proposed rule would require reporting from any person who manufactures (including imports) mercury or mercury-added products, or otherwise intentionally uses mercury in a manufacturing process. EPA published its initial inventory

<sup>9</sup> EPA. Mercury—U.S. Inventory Report: Supply, Use, and Trade. 2017.

<sup>10</sup> Ibid.

<sup>11</sup> 15 U.S.C. §§ 2607(b)(10)(B) and (C).

<sup>12</sup> UNEP. Minamata Convention on Mercury. Available at <http://www.mercuryconvention.org>.

report in the Federal Register on March 29, 2017, which noted data gaps and limitations encountered by the Agency in its historic reliance on publicly available data on mercury supply, use, and trade in the United States. As stated in the initial inventory report, “[f]uture triennial inventories of mercury supply, use, and trade are expected to include data collected directly from persons who manufacture (including import) mercury or mercury-added products or otherwise intentionally use mercury in a manufacturing process.” These proposed reporting requirements would help the Agency to prepare subsequent, triennial publications of the inventory, as well as execute the mandate to “identify any manufacturing processes or products that intentionally add mercury; and . . . recommend actions, including proposed revisions of Federal law or regulations, to achieve further reductions in mercury use” (15 U.S.C. 2607(b)(10)(C)).

Pursuant to TSCA section 8(b)(10)(B), EPA interprets the scope of the mercury inventory to include sectors of the mercury market that would fall under “supply, use, and trade of mercury in the United States.” This includes activities implicit to the statutory description of persons who must report as stated in TSCA section 8(b)(10)(d)(i): manufacture, import, and intentional use in a manufacturing process. For purposes of the proposed rule, EPA considered comparable terms under TSCA. In addition, EPA determined that additional activities are necessary to provide for a comprehensive inventory of mercury supply, use, and trade in the United States. For this reason, the Agency proposes that persons required to report to the mercury inventory must report information for the following activities: distribution in commerce, storage, and export. In sum, EPA intends that the mercury inventory would be a complete accounting of the amount of mercury in commerce.

### *Background*

Mercury is a naturally occurring element that originates in the earth’s crust and can be found in air, water, fish, and other biota. Mercury exists in three forms: elemental, organic compounds, and inorganic compounds.

Elemental mercury (Chemical Abstracts Service Registry Number (CASRN) 7439-97-6) is a shiny, silver-white metal that is liquid at room temperature. Mercury compounds are formed when elemental mercury reacts with another substance, either in nature or intentionally by humans. Organic mercury compounds are formed in the environment when mercury combines with carbon. Inorganic mercury compounds take the form of mercury salts. EPA’s TSCA Chemical Substance Inventory lists 69 mercury compounds.<sup>13</sup>

In the United States, elemental mercury and mercury compounds are used in the manufacture of mercury-added products and certain manufacturing processes. The typical lifecycle of products includes manufacture, distribution in commerce (including transport and storage), use, and waste management (landfilling or recycling). At any point in the product lifecycle, there is potential for mercury to be released. Globally, the major anthropogenic sources of released elemental mercury are the combustion of coal and use of elemental mercury in artisanal gold mining<sup>14</sup>. Emitted elemental mercury can be transported in the atmosphere on local, regional, and global scales as it cycles through air, land, and water.<sup>15</sup> Some of the emitted elemental mercury following deposition and transformation into divalent mercury can be biotransformed into methylmercury.<sup>16</sup> Methylmercury can bioaccumulate in fish and marine mammals, some of which are consumed by humans.<sup>17</sup>

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<sup>13</sup> EPA. TSCA Chemical Substance Inventory. Available at <https://www.epa.gov/tsca-inventory>.

<sup>14</sup> AMAP/UNEP, 2013. Technical Background Report for the Global Mercury Assessment 2013. Arctic Monitoring and Assessment Programme, Oslo, Norway/UNEP Chemicals Branch, Geneva, Switzerland. vi + 263 pp.

<sup>15</sup> EPA. Basic Information about Mercury. Available at <https://www.epa.gov/mercury/basic-information-about-mercury>.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

Mercury is a persistent and bioaccumulative neurotoxicant. Clinically observable neurotoxicity has been observed following exposure to high amounts of mercury.<sup>18</sup> Consumption of highly contaminated food also has led to produced overt mercury neurotoxic effects.<sup>19</sup> Generally, the most subtle indicators of methylmercury toxicity are neurological changes.<sup>20</sup> Neurotoxic effects at comparatively low doses include subtle decrements in motor skills and sensory ability, while extremely high exposures can cause tremors, inability to walk, convulsions, and death.<sup>21</sup> Exposure to mercury can also cause adverse ecological effects in plants, birds, fish, and mammals.<sup>22</sup>

### *Trends in Mercury Use*

Humans have mined, refined, and used mercury for a wide variety of purposes over thousands of years. In the United States, elemental mercury was mined until 1991, but today is produced only as a byproduct of metals mining or by recovering mercury from waste.<sup>23</sup> In recent decades, mercury served as a catalyst in the chlor-alkali industry and in a variety of industrial, commercial, and consumer products.<sup>24</sup> Due to its toxicity and replacement by new technologies, many uses of mercury have been discontinued in the United States, and the overall quantity has fallen dramatically in recent decades. For example, over the past three decades there has been strong downward trend of more than 97 percent in the use of elemental mercury in mercury-added products sold in the United States. In 1980, the United States used more than 1,800 metric tons of elemental mercury in mercury-added products annually.<sup>25</sup> As described in the initial inventory conducted by EPA in 2017, approximately 40 metric tons of elemental mercury in products were sold in the United States in 2013.<sup>26</sup> Many of these products sold have cost-effective, non-mercury substitutes.<sup>27</sup> The United States also has traded elemental mercury and mercury compounds worldwide, although the Mercury Export Ban Act of 2008 prohibited the export of mercury as of January 1, 2013.

### *Amendments to TSCA and Purpose of the ICR*

On June 22, 2016, President Obama signed the Frank R. Lautenberg Chemical Safety for the 21st Century Act, which amend TSCA. Among other provisions that apply to mercury, Congress directed EPA to prepare and publish in the Federal Register an “inventory of mercury supply, use, and trade in the United States.”<sup>28</sup>

The primary purpose of this ICR is to support the development of that inventory and the proposed rule that would assist in its preparation. In turn, the inventory would help the Agency identify of uses and recommend means to achieve further reductions such uses of mercury in commerce. In addition, the Agency seeks to obtain the information necessary to achieve its goal to further reduce the use of mercury in products and certain manufacturing processes in order to prevent future releases to the environment, as well as assist the United States in reporting on implementation on under the Minamata Convention. EPA seeks to enhance its current information on how much mercury is used and in which

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<sup>18</sup> EPA. Health Effects of Exposures to Mercury. Available at <https://www.epa.gov/mercury/health-effects-exposures-mercury>.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> EPA. Basic Information about Mercury. Available at <https://www.epa.gov/mercury/basic-information-about-mercury>.

<sup>23</sup> EPA. EPA’s Roadmap for Mercury, EPA-747R-06-001, July 2006. Available at <http://www.epa.gov/hg/roadmap.htm>.

<sup>24</sup> EPA. EPA’s Roadmap for Mercury, EPA-747R-06-001, July 2006. Available at <http://www.epa.gov/hg/roadmap.htm>.

<sup>25</sup> EPA. EPA’s Roadmap for Mercury, EPA-747R-06-001, July 2006. Available at <http://www.epa.gov/hg/roadmap.htm>.

<sup>26</sup> EPA. Mercury—U.S. Inventory Report: Supply, Use, and Trade. 2017.

<sup>27</sup> Ibid.

<sup>28</sup> 15 U.S.C. § 2607(b)(10)(B).

products and manufacturing processes, and whether certain products are manufactured domestically, imported, or exported.

### *Initial Inventory of Mercury Supply, Use, and Trade*

On March 29, 2017, EPA published its initial inventory report, “Mercury – U.S. Inventory Report: Supply, Use, and Trade.”<sup>29</sup> That report is a compilation of publicly available data on the supply, use, and trade of mercury and focuses on commodity mercury (i.e., manufactured or recovered and sold or stored for later use), as opposed to mercury that is handled and discarded as waste. The data on which the report is based has limitations despite the performance of quality assurance practices by a number of departments, agencies, and organizations. Those limitations include: restricted scope of existing databases, outdated information, and lack of specificity on the supply, use and trade of elemental mercury and mercury compounds. For example, in 2015, to develop its understanding of domestic mercury supply and trade, the Agency collected information on the quantity of mercury sold in the U.S. for the years 2010 and 2013 from five companies identified as the primary recyclers and distributors of mercury in the United States.<sup>30</sup> Comparing totals for mercury sold in products and the amount of bulk mercury sold in the United States in 2013 revealed a significant data gap of approximately 26 metric tons. IMERC data showed approximately 40 metric tons of mercury in mercury-added products sold in the United States in 2013. The information collected by the Agency for bulk elemental mercury manufactured and processed in the United States in the same year was approximately 66 metric tons. In this instance, EPA determined that mercury may be used in manufacturing processes, including as a reactant or formulation component, which may not be reflected in the amount of mercury reported as sold in products.

An additional data gap identified was the amount of mercury in exported mercury-added products. In addition, EPA will seek to gather information on certain skin products manufactured abroad and sold illegally in the United States.<sup>31</sup> The Agency is also seeking to be able to differentiate between the amount of mercury in imported mercury-added products and the amount in mercury-added products manufactured in the United States. For example, importation or domestic manufacture of mercury-added products may or may not be reflected in data reported as domestic sale of mercury-added products. Such general limitations, as well as those that are specific to the trade of mercury, are further discussed in the report and in greater detail in the next section of this supporting statement.

Based on data limitations and the amount of time between enactment of the TSCA amendments and the April 1, 2017 deadline for publication, the Agency did not perform any economic analysis on the available data or attempt to perform any data interpretations that would be consistent with directions to “identify any manufacturing processes or products that intentionally add mercury; and . . . recommend actions, including proposed revisions of Federal law or regulations, to achieve further reductions in mercury use.”<sup>32</sup> The Agency believed it was premature to make any such identifications or recommendations in the initial inventory report. Future triennial inventories of mercury supply, use, and trade, however, are expected to include data collected directly from persons who manufacture (including import) mercury or mercury-added products or otherwise intentionally use mercury in a manufacturing

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<sup>29</sup> EPA. Mercury; Initial Inventory Report of Supply, Use, and Trade. (82 Fed. Reg. 15522; March 29, 2017).

<sup>30</sup> EPA. Subpoena and Information Request. March 20, 2015. Available at [http://www.epa.gov/mercury/pdfs/Hg\\_FormalRequest\\_SIGNED\\_03-20-2015.pdf](http://www.epa.gov/mercury/pdfs/Hg_FormalRequest_SIGNED_03-20-2015.pdf).

<sup>31</sup> U.S. Food and Drug Administration. Mercury Poisoning Linked to Skin Products. (July 26, 2016). Available at <https://www.fda.gov/forconsumers/consumerupdates/ucm294849.htm>.

<sup>32</sup> 15 U.S.C. § 2607(b)(10)(C).

process.<sup>33</sup> As such, the Agency would consider making the identifications and recommendations described in TSCA section 8(b)(10)(C) based on future iterations of the mercury inventory.

The initial inventory report presents data collected on the supply, use, and trade of mercury. The data are broken down between elemental mercury and mercury compounds. The following table summarizes the amounts of mercury estimated for categories of supply, use, and trade.

<b>Summary of U.S. Mercury Inventory</b>		
<b>Elemental Mercury</b>		
	<b>QUANTITY</b> <b>(estimated metric tons)</b>	<b>YEAR</b>
<b>SUPPLY</b>		
Mining byproduct	12	2011
Hazardous waste recovery	66	2013
<b>USE</b>		
Products	40	2013
Processes	368	2013
<b>TRADE</b>		
Imports	24	2016
Exports	0	2016
<b>Mercury Compounds</b>		
<b>SUPPLY</b>		
Mercury (I) chloride	116	2011
Mercury (II) chloride	42	2011
<b>USE</b>		
Laboratory and chemistry uses	< 1	2004
Manufacturing processes	Unknown	--
<b>TRADE</b>		
Imports	335	2016
Exports	639	2016

<sup>33</sup> 15 U.S.C. § 2607(b)(10)(D).

## *Overview of Existing Information on Mercury-added Products and Manufacturing Processes – Availability and Limitations*

Prior to developing its initial inventory, EPA reviewed federal and state reports and databases, among other sources,<sup>34</sup> in order to assemble a collection of available information on mercury, mercury-added products, and manufacturing processes involving mercury. In reviewing data obtained, the Agency found that its baseline of data lacked the specificity and level of detail required to develop a mercury inventory responsive to TSCA section 8(b)(10)(D) or to be useful to recommend mercury use reduction efforts for both the public and private sectors. EPA is committed to further addressing such data gaps and to reduce the use of mercury in mercury-added products and manufacturing processes, where feasible.

The Agency determined that four online databases are applicable to the statutory directive to develop a mercury inventory. The CDR and TRI databases are part of EPA pollution prevention programs. IMERC is a state-level program related to mercury-added products. Lastly, the USITC DataWeb system is a federal program under the U.S. Bureau of the Census (Census). EPA reviewed these four databases and assessed their capabilities and limitations in relation to the Mercury Inventory Rule. EPA's assessment of each database is explained below:

### *Chemical Data Reporting Rule*

EPA's CDR rule collects quantity information on chemical substances manufactured or processed in the United States, including elemental mercury and various mercury compounds. In this regard the CDR rule and this proposed rule could be complementary, albeit with some structural constraints. First, the CDR rule requires reporting when a person manufactures (including imports) for commercial purposes in excess of 2,500 pounds (lbs.) for elemental mercury and in excess of 25,000 lbs. for a mercury compound for a specific reporting year. Thus, the proposed rule would look to collect information on manufactured (including imported) quantities of elemental mercury and mercury compounds below those thresholds.

Although the CDR rule in principal reporting years (i.e., the fourth year of every four-year reporting cycle) asks manufacturers (including importers) for information on end-uses of chemical substances, the amount of mercury used and the sector of industry lack specificity. Moreover, the CDR rule does not require reporting for chemical substances imported within articles. The proposed rule, in concert with IMERC, would seek to collect specific information on mercury-added products and the associated industry sectors.

### *Toxics Release Inventory Program*

The EPA TRI program requires facilities that manufacture, process, or otherwise use more than 10 lbs. of mercury or mercury compounds during the calendar year to report amounts released to the environment or managed through recycling, energy recovery and treatment.<sup>35</sup> While the TRI program does not require quantitative reporting for manufacturing, processing, or use activities by category, a facility is required to report activities and uses of the toxic chemical including, but not limited to

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<sup>34</sup> Internet research performed by the Agency resulted in mostly anecdotal information. Certain proprietary databases do not distinguish between mercury products and non-mercury products.

<sup>35</sup> EPA. Emergency Planning and Community Right-to-Know Act—Section 313: Guidance for Reporting Toxic Chemicals: Mercury and Mercury Compounds Category. August 2001. Available at [http://www.epa.gov/tri/reporting\\_materials/guidance\\_docs/pdf/2001/2001hg.pdf](http://www.epa.gov/tri/reporting_materials/guidance_docs/pdf/2001/2001hg.pdf).

“import,” “for sale/distribution,” “as a reactant,” “as an article component,” and “as a chemical processing aid.”<sup>36</sup>

EPA previously discussed how the information reported to the TRI program can be helpful in identifying and prioritizing facilities involved in the supply, use, and trade of mercury.<sup>37</sup> However, information reported to the TRI program for activities that overlap with data elements in the proposed rule lack specific quantitative amounts of elemental mercury and mercury compounds (e.g., reported as “check box” responses only).<sup>38</sup> In addition, while maximum quantity of mercury on-site at a facility is reported in quantitative amounts, those amounts are given in weight ranges.<sup>39</sup> Moreover, the TRI program considers all mercury compounds as a single, generic category instead of distinguishing among specific mercury compounds. In its research to date, EPA has identified 69 mercury compounds of interest. (See **Section 4(b) Information Requested**)

#### *Interstate Mercury Education and Reduction Clearinghouse*

Laws in certain states (Connecticut, Louisiana, Maine, Massachusetts, New Hampshire, New York, North Carolina, Rhode Island, and Vermont hereinafter referred to as “Notification States”) require manufacturers and importers to identify the mercury products they sell and the volume of mercury contained within them. The volume information is reported in terms of national sales, although only companies selling mercury products within those states need to report. These data are reported online to IMERC, which is managed by the Northeast Waste Management Officials’ Association (NEWMOA). Some states also collect information on mercury in products as part of separate programs. For example, under Washington’s Children’s Safe Product Act,<sup>40</sup> manufacturers of children’s products sold in Washington state are required to report products containing a “Chemical of High Concern to Children,” including mercury.

The IMERC database is a key source of national data on mercury used in products. The database houses information, which is provided by the private sector on a triennial basis per regulations in IMERC Notification States. The database provides a detailed picture of some aspects of the mercury product market. However, as reported by IMERC, there are limitations<sup>41</sup> of the use of such data for EPA’s implementation of the proposed rule and Minamata Convention. For example:

- The data may underestimate the amount of mercury sold in products in the United States.<sup>42</sup> The manufacturers, importers, and distributors in IMERC Notification states must report on mercury-added products sold in the United States,<sup>43</sup> so the information is national in scale. However, if a mercury product is only sold in states other than the IMERC Notification states, then the product manufacturer, importer, or distributor is not required to report to IMERC. In addition, IMERC no longer collects data on a significant category of mercury-added products, specifically switches

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<sup>36</sup> EPA. Form R – Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also Known as Title III of the Superfund Amendments and Reauthorization Act. Available at [https://www.epa.gov/sites/production/files/2016-01/documents/ry\\_2015\\_form\\_r.pdf](https://www.epa.gov/sites/production/files/2016-01/documents/ry_2015_form_r.pdf).

<sup>37</sup> EPA. Mercury; TSCA Section 21 Petition; Reasons for Agency Response. 80 Fed. Reg. 60584 (October 7, 2015).

<sup>38</sup> EPA. Form R – Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also Known as Title III of the Superfund Amendments and Reauthorization Act. Available at [https://www.epa.gov/sites/production/files/2016-01/documents/ry\\_2015\\_form\\_r.pdf](https://www.epa.gov/sites/production/files/2016-01/documents/ry_2015_form_r.pdf).

<sup>39</sup> *Ibid.*

<sup>40</sup> WASH. REV. CODE § 70.240.

<sup>41</sup> NEWMOA. Mercury-Added Products Database – Caveats & Limitations. Available at <http://www.newmoa.org/prevention/mercury/imerc/Notification/caveats.cfm>.

<sup>42</sup> *Ibid.*

<sup>43</sup> NEWMOA. Mercury-Added Products Database – About the Database. Available at <http://www.newmoa.org/prevention/mercury/imerc/Notification/about.cfm>.



and relays, because these products are banned from sale in each of the eight IMERC Notification States.

- In other instances, the data may overestimate the total amount of mercury sold in products.<sup>44</sup> In some cases, manufacturers supplied data for earlier reporting years, but are out of compliance for one or more years. Rather than assume that this non-reporting is a result of a company having phased-out its mercury-added product, IMERC takes a more conservative approach and assumes that the mercury total for non-reporters for the current reporting period is the same as the most recently reported year.
- IMERC does not cover mercury compounds manufactured or imported for use in manufacturing processes or mercury-added products, with the exception of formulated products.
- Companies report the amount of mercury in products they sell in the United States but not the amount in products they manufacture, import, or export.

IMERC's data limitations were also noted in 2013 by the Quicksilver Caucus, a coalition of state environmental association leaders dedicated to reducing mercury in the environment.<sup>45</sup>

#### *U.S. International Trade Commission Interactive Trade DataWeb*

The USITC DataWeb provides U.S. international trade statistics and U.S. tariff data to the public. All trade data are compiled from official data retrieved from Census. With the exception of exports to Canada, all U.S. merchandise export data<sup>46</sup> is compiled from the Electronic Export Information filed by the U.S. Principal Party in Interest or their agents through the Automated Export System.<sup>47</sup> Published data on U.S. imports of merchandise is compiled primarily from automated data submitted through the U.S. Customs' Automated Commercial System.<sup>48</sup> Data are also compiled from import entry summary forms, warehouse withdrawal forms and Foreign Trade Zone documents as required by law to be filed with the U.S. Customs and Border Protection.<sup>49</sup>

Publicly available data in the USITC DataWeb may not be entirely accurate. Census describes certain reporting and data capture errors that can affect statistics, including: (1) mistakes or omissions made by importers, exporters, or their agents when reporting import or export shipments (e.g., missing or invalid commodity classification codes, missing or incorrect quantities or shipping weights, and missing, multiple, or incorrect state of origin designations); and (2) lost documents, errors in the on-line validations and edits of electronically reported data, and incorrectly keyed, coded or recorded documents.<sup>50</sup>

In sum, EPA conducted a thorough review of publicly available information and databases that collect data germane to an inventory of mercury supply, use, and trade. EPA believes that it cannot

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<sup>44</sup> NEWMOA. Mercury-Added Products Database – Caveats & Limitations. Available at <http://www.newmoa.org/prevention/mercury/imerc/Notification/caveats.cfm>.

<sup>45</sup> Quicksilver Caucus. Status Report on Select Products, Processes and Technologies Utilizing Mercury. August 2013. Available at <https://dec.alaska.gov/eh/docs/mercury/Status%20Report%20by%20Quicksilver.pdf>.

<sup>46</sup> The United States is substituting Canadian import statistics for U.S. exports to Canada in accordance with a 1987 Memorandum of Understanding signed by the Census Bureau, U.S. Customs and Border Protection, Canadian Customs, and Statistics Canada. Similarly, under this Memorandum of Understanding, Canada is substituting U.S. import statistics for Canadian exports to the United States.

<sup>47</sup> USITC. Guide to Foreign Trade Statistics – Description of the Foreign Trade Statistical Program. Available at <https://www.census.gov/foreign-trade/guide/sec2.html>.

<sup>48</sup> Ibid.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

develop an adequate national inventory using only these resources. Nonetheless, the Agency will attempt to leverage existing resources and avoid requesting duplicative data. The Agency believes that the proposed rule can be crafted to minimize its reliance on incomplete databases, assumptions, professional judgment, and anecdotal information, and maximize its future ability to “identify any manufacturing processes or products that intentionally add mercury” and “recommend actions, including proposed revisions of Federal law or regulations, to achieve further reductions in mercury use.”<sup>51</sup>

## **2(b) Practical Utility/Users of the Data**

EPA will use the collected information to develop and publish an inventory of mercury supply, use, and trade in the United States.<sup>52</sup> The proposed rule will assist in the preparation of that inventory.<sup>53</sup> In addition, the Agency will use such information to fill gaps in existing data which will enable EPA to “identify any manufacturing processes or products that intentionally add mercury; and . . . recommend actions, including proposed revisions of Federal law or regulations, to achieve further reductions in mercury use.”<sup>54</sup> The information also could facilitate reporting on implementation of the Minamata Convention by the United States.

## **3. NON-DUPLICATION, CONSULTATIONS, AND OTHER COLLECTION CRITERIA**

### **3(a) Non-Duplication**

TSCA section 8(b)(10)(D)(ii) directs the Agency to “coordinate the reporting . . . with the Interstate Mercury Education and Reduction Clearinghouse” (IMERC) to avoid duplication.<sup>55</sup> Furthermore, TSCA section 8(a)(5)(a) states “[i]n carrying out [TSCA section 8], the Administrator shall, to the extent feasible . . . not require reporting which is unnecessary or duplicative.”<sup>56</sup> The Agency seeks to avoid collecting data on mercury that would duplicate data already reported to existing state and Federal programs, and to coordinate with and complement those reporting programs as much as possible. While developing this proposed rule, EPA reviewed four data collection systems applicable to mercury, mercury-added products, and mercury used in manufacturing processes: the CDR rule, the TRI program, IMERC, and the USITC DataWeb (as described in detail in Section 2 above).

After reviewing such reporting programs, EPA intends to design the reporting requirements of the proposed rule to reduce the burden for reporters already familiar with CDR, TRI, IMERC, and USITC DataWeb protocol. To do so, the Agency would incorporate comparable reporting concepts and tools from each program, as well as exempt current reporters to certain programs, in an attempt to increase the efficacy while decreasing the burden of reporting to a national mercury inventory.

### **3(b) Public Notice Required Prior to ICR Submission to OMB**

The proposed rulemaking would serve as the public notice for this ICR. Interested parties would be able to submit comments referencing Docket ID No. EPA-HQ-OPPT-2017-0421 to the address listed at the end of this document. Responses will be taken into account in developing the final rulemaking.

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<sup>51</sup> 15 U.S.C. § 2607(b)(10)(C).

<sup>52</sup> 15 U.S.C. § 2607(b)(10)(B).

<sup>53</sup> 15 U.S.C. § 2607(b)(10)(D).

<sup>54</sup> 15 U.S.C. § 2607(b)(10)(C).

<sup>55</sup> 15 U.S.C. 2607(b)(10)(D)(ii).

<sup>56</sup> 15 U.S.C. 2607(a)(5)(a).

### **3(c) Consultations**

Under 5 CFR 1320.8(d)(1), OMB requires agencies to consult with potential ICR respondents and data users about specific aspects of ICRs before submitting an original or renewal ICR to OMB for review and approval. The proposed rulemaking would serve as an opportunity for the public notice and comment for this ICR. EPA also would pursue additional consultations, as requested, with interested parties during the development or renewal of this collection.

### **3(d) Effects of Less Frequent Collection**

EPA determined that the reporting and recordkeeping requirements of the ICR should be the minimum amount necessary in order to limit burden to industry while also supporting the mandatory triennial publication of the mercury inventory. Reporters are required to report once every three years and retain records for three years, commensurate with the three-year publication cycle set forth in the statute. If the Agency were to require less frequent reporting (i.e., more than three years between reporting cycles), then the information collected would not be timely given the triennial publication deadline.

### **3(e) General Guidelines**

This ICR complies with the guidelines in 5 CFR 1320.5(d)(2).

### **3(f) Confidentiality**

Regulated entities may claim some of the information given to EPA as Confidential Business Information (CBI). Reporting requirements will contain information for respondents on how to make a claim to EPA that all or part of their submitted information is CBI. EPA handles claims of confidentiality pursuant to established CBI procedures, as found at Section 14 of TSCA, 40 CFR Part 2, and the Agency's TSCA CBI Manual. CBI is also protected under the Freedom of Information Act (5 USC Section 525).

### **3(g) Sensitive Questions**

Under the proposed rule, EPA would ask no questions of a sensitive nature.

## **4. THE RESPONDENTS AND THE INFORMATION REQUESTED**

As directed by Congress, EPA will obtain required information directly from the entities that manufacture or import mercury or mercury-added products, as well as those that otherwise intentionally use mercury in a manufacturing process. To ensure that the scope of the proposed rule is sufficient without being overly broad, EPA reviewed existing databases (e.g., CDR, TRI, IMERC, and USITC DataWeb) in order to identify mercury-added products and product categories, manufacturing processes involving mercury, and relevant North American Industrial Classification System (NAICS) codes to include in the information collection.

### **4(a) Respondents and North American Industrial Classification System Codes**

EPA interprets TSCA section 8(b)(10)(D) to identify three general categories of persons who must report to the proposed rule:

- Persons who manufacture (including import) mercury;
- Persons who manufacture (including import) mercury-added products; and
- Persons who intentionally use mercury in a manufacturing process.

Respondents affected by this collection activity primarily include, but are not limited to those businesses that fall under the NAICS Codes listed below:

- Gold ore mining (NAICS code 212221)
- Lead ore and zinc ore mining (NAICS code 212231)
- All other metal ore mining (NAICS code 212299)
- Asphalt shingle and coating materials manufacturing (NAICS code 324122)
- Synthetic dye and pigment manufacturing (NAICS code 325130)
- Other basic inorganic chemical manufacturing (NAICS code 325180)
- All other basic organic chemical manufacturing (NAICS code 325199)
- Plastics material and resin manufacturing (NAICS code 325211)
- Pesticide and other agricultural chemical manufacturing (NAICS code 325320)
- Medicinal and botanical manufacturing (NAICS code 325411)
- Pharmaceutical preparation manufacturing (NAICS code 325412)
- Biological product (except diagnostic) manufacturing (NAICS code 325414)
- Paint and coating manufacturing (NAICS code 325510)
- Adhesive manufacturing (NAICS code 325520)
- Custom compounding of purchased resins (NAICS code 325991)
- Photographic film, paper, plate, and chemical manufacturing (NAICS code 325992)
- All other miscellaneous chemical product and preparation manufacturing (NAICS code 325998)
- Unlaminated plastics film and sheet (except packaging) manufacturing (NAICS code 326113)
- Unlaminated plastics profile shape manufacturing (NAICS code 326121)
- Urethane and other foam product (except polystyrene) manufacturing (NAICS code 326150)
- All other plastics product manufacturing (NAICS code 326199)
- Tire manufacturing (NAICS code 326211)
- All other rubber product manufacturing (NAICS code 326299)
- Iron and steel mills and ferroalloy manufacturing (NAICS code 331110)
- Rolled steel shape manufacturing (NAICS code 331221)
- Alumina refining and primary aluminum production (NAICS code 331313)
- Secondary smelting and alloying of aluminum (NAICS code 331314)
- Nonferrous metal (except aluminum) smelting and refining (NAICS code 331410)
- Secondary smelting, refining, and alloying of nonferrous metal (except copper and aluminum) (NAICS code 331492)
- Iron foundries (NAICS code 331511)
- Steel foundries (except investment) (NAICS code 331513)
- Fabricated structural metal manufacturing (NAICS code 332312)
- Industrial valve manufacturing (NAICS code 332911)
- Ammunition except small arms manufacturing (NAICS code 332993)
- Small arms, ordnance, and ordnance accessories manufacturing (NAICS code 332994)
- All other miscellaneous fabricated metal product manufacturing (NAICS code 332999)
- Food product machinery manufacturing (NAICS code 333294)
- Office machinery manufacturing (NAICS code 333313)
- Other commercial and service industry machinery manufacturing (NAICS code 333319)
- Heating equipment (except warm air furnaces) manufacturing (NAICS code 333414)
- Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing (NAICS code 333415)

- Pump and pumping equipment manufacturing (NAICS code 333911)
- Bare printed circuit board manufacturing (NAICS code 334412)
- Semiconductor and related device manufacturing (NAICS code 334413)
- Other electronic component manufacturing (NAICS code 334419)
- Electromedical and electrotherapeutic apparatus manufacturing (NAICS code 334510)
- Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing (NAICS code 334511)
- Automatic environmental control manufacturing for residential, commercial, and appliance use (NAICS code 334512)
- Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables (NAICS code 334513)
- Totalizing fluid meter and counting device manufacturing (NAICS code 334514)
- Instrument manufacturing for measuring and testing electricity and electrical signals (NAICS code 334515)
- Analytical laboratory instrument manufacturing (NAICS code 334516)
- Watch, clock, and part manufacturing (NAICS code 334518)
- Other measuring and controlling device manufacturing (NAICS code 334519)
- Electric lamp bulb and part manufacturing (NAICS code 335110)
- Commercial, industrial, and institutional electric lighting fixture manufacturing (NAICS code 335122)
- Other lighting equipment manufacturing (NAICS code 335129)
- Electric house wares and household fan manufacturing (NAICS code 335211)
- Household vacuum cleaner manufacturing (NAICS code 335212)
- Household cooking appliance manufacturing (NAICS code 335221)
- Household refrigerator and home freezer manufacturing (NAICS code 335222)
- Household laundry equipment manufacturing (NAICS code 335224)
- Other major household appliance manufacturing (NAICS code 335228)
- Switchgear and switchboard apparatus manufacturing (NAICS code 335313)
- Relay and industrial control manufacturing (NAICS code 335314)
- Primary battery manufacturing (NAICS code 335912)
- Current-carrying wiring device manufacturing (NAICS code 335931)
- All other miscellaneous electrical equipment and component manufacturing (NAICS code 335999)
- Light truck and utility vehicle manufacturing (NAICS code 336112)
- Heavy duty truck manufacturing (NAICS code 336120)
- Motor home manufacturing (NAICS code 336213)
- Travel trailer and camper manufacturing (NAICS code 336214)
- Other aircraft parts and auxiliary equipment manufacturing (NAICS code 336413)
- Boat building (NAICS code 336612)
- Motorcycles and parts manufacturing (NAICS code 336991)
- Surgical and medical instrument manufacturing (NAICS code 339112)
- Costume jewelry and novelty manufacturing (NAICS code 339914)
- Game, toy, and children's vehicle manufacturing (NAICS code 339932)
- Sign manufacturing (NAICS code 339950)
- Other chemical and allied products merchant wholesalers (NAICS code 424690)
- Research and development in the physical, engineering, and life sciences (except biotechnology) (NAICS code 541712)
- Hazardous waste treatment and disposal (NAICS code 562211)
- Other nonhazardous waste treatment and disposal (NAICS code 562219)
- Materials recovery facilities (NAICS code 562920)

- National security (NAICS code 928110)

## 4(b) Information Requested

### (i) Data Items

As described in Section 2, EPA determined that the primary data elements required to establish a complete national inventory of mercury supply, use and trade are the amounts manufactured (including imported) stored, distributed in commerce, and exported. Outlined below are the specific data requirements based on EPA's interpretation of supply, use and trade.

- Amounts of mercury to be reported as follows:
  - Importers of mercury
    - Amount of mercury imported per year (lbs.)
    - Amount of mercury stored per year (lbs.)
    - Amount of mercury distributed in commerce per year (lbs.)
    - Amount of mercury exported per year (lbs.)
  - Manufacturers (other than importers) of mercury
    - Amount of mercury manufactured (other than imported) per year (lbs.)
    - Amount of mercury stored per year (lbs.)
    - Amount of mercury distributed in commerce per year (lbs.)
  - Importers of mercury-added products (except import of a product that contains a component that is a mercury-added product)
    - Amount of mercury in imported products per year (lbs.)
    - Amount of mercury in products distributed in domestic commerce per year (lbs.)
    - Amount of mercury in exported products per year (lbs.)
  - Manufacturers (other than importers) of mercury-added products (except manufacture of a product that contains a component that is a mercury-added product)
    - Amount of mercury in manufactured (other than imported) products per year (lbs.)
    - Amount of mercury in products distributed in commerce per year (lbs.)
    - Amount of mercury in exported products per year (lbs.)
  - Intentional users of mercury in manufacturing processes, other than the manufacture of a mercury compound or a mercury-added product
    - Amount of mercury used in a manufacturing process per year (lbs.)
    - Amount of mercury stored per year (lbs.)
    - Amount of mercury distributed in commerce in final product(s) of manufacturing process per year (lbs.)
    - Amount of mercury exported in final product(s) of manufacturing process per year (lbs.)
- As applicable, identification of categories and subcategories of mercury-added products:
  - Batteries
    - Button cell, silver
    - Button cell, zinc-air
    - Button cell, alkaline
    - Stacked button cell batteries
    - Manganese oxide
    - Silver oxide

- Mercuric oxide, non-button cell
  - Button cell, mercuric oxide
  - Button cell, zinc carbon
  - Other (specify)
- o Dental amalgam
- o Formulated products (includes uses in cosmetics, pesticides, and laboratory chemicals)
  - Skin-lightening creams
  - Lotions
  - Soaps and sanitizers
  - Topical antiseptics
  - Bath oils and salts
  - Preservatives (e.g., for use in vaccines and eye-area cosmetics when no preservative alternatives are available)
  - Pharmaceuticals (including prescription and over-the-counter drug products)
  - Cleaning products (not registered as pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act)
  - Pesticides
  - Paints
  - Dyes
  - Reagents (e.g., catalysts, buffers, fixatives)
  - Other (specify)
- o Lighting, lamps, bulbs
  - Linear fluorescent
  - Compact fluorescent
  - U-tube and circular fluorescent
  - Cold cathode fluorescent
  - External electrode fluorescent
  - Mercury vapor
  - Metal halide
  - High pressure sodium
  - Mercury short arc
  - Neon
  - Other (specify)
- o Measuring instruments
  - Barometer
  - Fever thermometer
  - Flow meter
  - Hydrometer
  - Hygrometer/psychrometer
  - Manometer
  - Non-fever thermometer
  - Pyrometer
  - Sphygmomanometer
  - Other (specify)
- o Pump seals
- o Switches, relays, sensors, valves
  - Tilt switch
  - Vibration switch
  - Float switch

- Pressure switch
- Temperature switch
- Displacement relay
- Wetted reed relay
- Contact relay
- Flame sensor
- Thermostat
- Other (specify)
- o Miscellaneous/novelty mercury-added products
  - Wheel weights
  - Wheel rotation balancers/stabilizers
  - Firearm recoil suppressors
  - Carburetor synchronizers
  - Tennis elbow bands
  - Other (specify)
- As applicable, identification of specific mercury compounds manufactured (including imported) or intentionally used in a manufacturing process:

### List of Mercury Compounds

Chemical Abstracts Registry Number	Mercury Compound
10045-94-0	Nitric acid, mercury(2+) salt (2:1)
100-57-2	Mercury, hydroxyphenyl-
10112-91-1	Mercury chloride (Hg <sub>2</sub> Cl <sub>2</sub> )
10124-48-8	Mercury amide chloride (Hg(NH <sub>2</sub> )Cl)
103-27-5	Mercury, phenyl(propanoato-.kappa.O)-
10415-75-5	Nitric acid, mercury(1+) salt (1:1)
104-60-9	Mercury, (9-octadecenoato-.kappa.O)phenyl-
1191-80-6	9-Octadecenoic acid (9Z)-, mercury(2+) salt (2:1)
12068-90-5	Mercury telluride (HgTe)
13170-76-8	Hexanoic acid, 2-ethyl-, mercury(2+) salt (2:1)
13302-00-6	Mercury, (2-ethylhexanoato-.kappa.O)phenyl-
1335-31-5	Mercury cyanide oxide (Hg <sub>2</sub> (CN) <sub>2</sub> O)
1344-48-5	Mercury sulfide (HgS)
1345-09-1	Cadmium mercury sulfide



13876-85-2	Mercurate(2-), tetraiodo-, copper(1+) (1:2), (T-4)-
138-85-2	Mercurate(1-), (4-carboxylatophenyl)hydroxy-, sodium (1:1)
141-51-5	Mercury, iodo(iodomethyl)-
14783-59-6	Mercury, bis[(2-phenyldiazenecarbothioic acid-.kappa.S) 2-phenylhydrazidato-.kappa.N2]-, (T-4)-
15385-58-7	Mercury, dibromodi-, (Hg-Hg)
15785-93-0	Mercury, chloro[4-[(2,4-dinitrophenyl)amino]phenyl]-
15829-53-5	Mercury oxide (Hg2O)
1600-27-7	Acetic acid, mercury(2+) salt (2:1)
1785-43-9	Mercury, chloro(ethanethiolato)-
19447-62-2	Mercury, (acetato-.kappa.O)[4-[2-[4-(dimethylamino)phenyl]diazenyl]phenyl]-
20582-71-2	Mercurate(2-), tetrachloro-, potassium (1:2), (T-4)-
20601-83-6	Mercury selenide (HgSe)
21908-53-2	Mercury oxide (HgO)
22450-90-4	Mercury(1+), amminephenyl-, acetate (1:1)
24579-90-6	Mercury, chloro(2-hydroxy-5-nitrophenyl)-
24806-32-4	Mercury, [.mu.-[2-dodecylbutanedioato(2-)-.kappa.O1:.kappa.O4]]diphenyldi-
26545-49-3	Mercury, (neodecanoato-.kappa.O)phenyl-
27685-51-4	Cobaltate(2-), tetrakis(thiocyanato-.kappa.N)-, mercury(2+) (1:1), (T-4)-
29870-72-2	Cadmium mercury telluride ((Cd,Hg)Te)
3294-57-3	Mercury, phenyl(trichloromethyl)-
33770-60-4	Mercury, [3,6-dichloro-4,5-di(hydroxy-.kappa.O)-3,5-cyclohexadiene-1,2-dionato(2-)]-
3570-80-7	Mercury, bis(acetato-.kappa.O)[.mu.-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2',7'-diyl)]di-

537-64-4	Mercury, bis(4-methylphenyl)-
539-43-5	Mercury, chloro(4-methylphenyl)-
54-64-8	Mercurate(1-), ethyl[2-(mercapto-.kappa.S)benzoato(2-)-.kappa.O]-, sodium (1:1)
55-68-5	Mercury, (nitrato-.kappa.O)phenyl-
56724-82-4	Mercury, phenyl[(2-phenyldiazenecarbothioic acid-.kappa.S) 2-phenylhydrazidato-.kappa.N2]-
587-85-9	Mercury, diphenyl-
592-04-1	Mercury cyanide (Hg(CN)2)
592-85-8	Thiocyanic acid, mercury(2+) salt (2:1)
593-74-8	Mercury, dimethyl-
59-85-8	Mercurate(1-), (4-carboxylatophenyl)chloro-, hydrogen
623-07-4	Mercury, chloro(4-hydroxyphenyl)-
62-38-4	Mercury, (acetato-.kappa.O)phenyl-
62638-02-2	Cyclohexanebutanoic acid, mercury(2+) salt (2:1)
627-44-1	Mercury, diethyl-
6283-24-5	Mercury, (acetato-.kappa.O)(4-aminophenyl)-
628-86-4	Mercury, bis(fulminato-.kappa.C)-
629-35-6	Mercury, dibutyl-
63325-16-6	Mercurate(2-), tetraiodo-, (T-4)-, hydrogen, compd. with 5-iodo-2-pyridinamine (1:2:2)
63468-53-1	Mercury, (acetato-.kappa.O)(2-hydroxy-5-nitrophenyl)-
63549-47-3	Mercury, bis(acetato-.kappa.O)(benzenamine)-
68201-97-8	Mercury, (acetato-.kappa.O)diamminephenyl-, (T-4)-
72379-35-2	Mercurate(1-), triiodo-, hydrogen, compd. with 3-methyl-2(3H)-benzothiazolimine (1:1:1)
7439-97-6	Mercury
7487-94-7	Mercury chloride (HgCl2)

7546-30-7	Mercury chloride (HgCl)
7616-83-3	Perchloric acid, mercury(2+) salt (2:1)
7774-29-0	Mercury iodide (HgI <sub>2</sub> )
7783-33-7	Mercurate(2-), tetraiodo-, potassium (1:2), (T-4)-
7783-35-9	Sulfuric acid, mercury(2+) salt (1:1)
7783-39-3	Mercury fluoride (HgF <sub>2</sub> )
7789-47-1	Mercury bromide (HgBr <sub>2</sub> )
90-03-9	Mercury, chloro(2-hydroxyphenyl)-
94070-93-6	Mercury, [ $\mu$ -[(oxydi-2,1-ethanediyl 1,2-benzenedicarboxylato- $\kappa$ O <sub>2</sub> )(2-))]diphenyldi-

- As applicable, identification or categories of manufacturing processes for which mercury may be intentionally used:
  - Chlorine production (e.g., mercury-cell chlor-alkali process)
  - Acetaldehyde production
  - Vinyl chloride monomer production
  - Sodium/potassium methylate/ethylate production
  - Polyurethane/plastic production
  - Other
- As applicable, identification of how mercury is used in manufacturing processes:
  - Catalyst
  - Reactant
  - Reagent
  - Other
- As applicable, contextual data that would describe certain segments of trade flow:
  - For imports of mercury or mercury-added products:
    - Country of origin
  - For mercury or mercury-added products distributed in commerce:
    - Identify the purchasing or receiving industry sectors via NAICS codes
  - For exported mercury or mercury-added products:
    - Destination country

EPA welcomes public comment on how to enhance the quality, utility, and clarity of the information to be collected. In particular, EPA seeks comment on these aspects of the reporting requirements:

1. Are there additional products or product categories that should be included in the reporting requirements?

2. Are there products or product categories that should be eliminated from the reporting requirements?
3. Are there additional data elements that should be included in the reporting requirements to improve the utility of the inventory of mercury supply, use, and trade?
4. Are there additional NAICS codes to add to the table of NAICS codes in 4(a)?

**(ii) Respondent Activities**

Individuals who are contacted to participate in this information collection activity could potentially perform each of the following tasks:

- Read the Federal Register notice;
- Read the reporting requirements and instructions;
- Gather, organize, and compile records;
- Respond to reporting requirements;
- If necessary, establish an account with EPA’s Central Data Exchange (CDX);
- Submit data via CDX; and
- Retain records.

**5. THE INFORMATION COLLECTED: AGENCY ACTIVITIES, COLLECTION METHODOLOGY, AND INFORMATION MANAGEMENT**

**5(a) Agency Activities**

EPA resources would be devoted to reviewing and analyzing data submissions, maintaining files of submitted data, responding to public inquiries, and drafting and publishing the triennial mercury inventory. Specific Agency actions include:

- Requesting responses to the reporting requirements via the proposed Federal Register notice;
- Conducting outreach and providing materials to assist in understanding rule requirements and reporting data accordingly;
- Reviewing and performing quality assurance of submitted data; and
- Following up with respondents if clarifications are needed.

Based on the information collected, EPA would develop guidance and recommendations of actions to achieve further reductions in mercury use.

**5(b) Collection Methodology and Management**

In order to streamline reporting processes, the data required to develop a comprehensive national mercury inventory would be collected electronically. In an effort to minimize burden to respondents and limit costs to the Agency, EPA would establish a reporting application and database with the Central Data Exchange. The required use of CDX for submission of proposed required data is consistent with the Government Paperwork Elimination Act (GPEA, Pub. L. 105-277), which requires that, when practicable, federal organizations use electronic forms, electronic filings, and electronic signatures to conduct official business with the public.

Respondents will be required to establish an account in the CDX portal unless they already have done so (e.g., CDR and TRI reporters). Respondents new to CDX will need to create an account profile. To register in CDX, the CDX registrant (also referred to as “Electronic Signature Holder” or

“Public/Private Key Holder”) downloads two forms: the Electronic Signature Agreement and the Verification of Company Authorizing Official form. Registration enables CDX to perform two important functions: authentication of identity and verification of authorization. Within the “Electronic Signature Agreement” form, the Authorized Official (AO) agrees to certain CDX security conditions. On the “Verification of Company Authorizing Official” form, the AO designates himself/herself as the AO and attests to the completeness and accuracy of the submitted information. When these forms are received, EPA activates the submitter's registration in CDX and sends him or her an e-mail notification. Companies that already have CDX accounts will simply need to log-in and select the proposed mercury inventory application from a menu of options to add the reporting tool to the company CDX profile.

EPA believes the adoption of electronic communications may reduce the reporting burden on industry by reducing both the cost and the time required to review, edit and transmit data to the Agency. All information sent via CDX is transmitted securely to protect CBI. Furthermore, if any information in the submission has been claimed CBI, a sanitized copy of the notice must be provided by the submitter. With electronic reporting, this can be done automatically during the submission process, eliminating the need for the submitter to do this manually. Electronic reporting also allows submitters to share a draft notice within their company and save a copy of the final file for future use.

The Agency also benefits from receiving electronic submissions. Respondents directly enter data into the proposed mercury inventory application online rather than send data to the Agency, which would then be responsible for manually entering data into a system on behalf of the respondents. Electronic reporting reduces potential for data entry errors and reduces the overall cost to the Agency as it limits the need for human resources and provides a more efficient collection of data as well as expedites and simplifies data analysis for the triennial inventory publication.

### **5(c) Small Entity Flexibility**

Based on the preliminary economic assessment, approximately 40 percent of the respondents will be small entities. However, small businesses are not exempt from reporting requirements because unlike the exemption for small manufacturers and processors provided under TSCA 8(a)(1)(A) and (B), reporting and recordkeeping requirements associated with TSCA section 8(b) are applicable to all affected entities. EPA is striving to minimize the burden on all respondents, including small entities, as much as possible by developing the reporting application and database to be user-friendly and dynamic, consisting of straightforward questions that are to include fill-in-the-blank (numbers) fields, check boxes, and drop down menus. In addition, the Agency is considering the development of compliance guides tailored to small entities that will be required comply with the reporting requirements. EPA will request public comment in the proposed rule on what kinds of information would be particularly helpful to small entities.

EPA expects to conduct outreach and webinars for small businesses to introduce the reporting database, explain requirements, and offer Q&A and other support. Under TSCA section 26(d), EPA also provides specialized assistance to respondents, particularly to small entities, including technical and other non-financial assistance to manufacturers and processors of chemical substances. EPA's TSCA Hotline assists small businesses complying with TSCA rules and provides various materials such as copies of **Federal Register** notices, advisories, and other information upon request.

### **5(d) Collection Schedule**

Persons who must report under this proposed rule are required to submit reports on or before July 1, 2019 and every three years thereafter. The required reporting information would apply to the calendar

year preceding the year in which the submission deadline occurs (e.g., data for calendar year January 1 to December 31, 2018 submitted on or before July 1, 2019).

## **6. ESTIMATING THE BURDEN AND COST OF THE COLLECTION**

This analysis presents the burden and cost estimates for all affected entities over the first three years of the rule as a result of the reporting requirements for mercury, mercury compounds, and mercury-containing products under the authority of Section 8(b) of TSCA. All costs are presented in year 2016 dollars. The information collection assumes reporting at the company level. EPA estimates that a total of 750 manufacturers/processors will respond to this information collection, based on numbers of reporters of mercury data to the IMERC Mercury-Added Products Database, as well as the EPA's Toxics Release Inventory program and the CDR rule.

Burden and cost calculations are based on the assumption that each company submits one report: EPA will receive 750 reports in the first year of the rule. Reporting is only required every three years, so there will be one report submitted per company during this ICR period. The average burden per respondent per reporting period is estimated to be approximately 99 hours, or 33 hours annually over the three-year period.

### **6(a) Estimating Respondent Burden**

The rule requires manufacturers, importers, and processors of mercury, mercury compounds, and mercury-containing products to incur costs associated with rule familiarization, preparation of reports, CBI claim substantiation, and recordkeeping.

Companies will be required to report a variety of information about mercury, mercury compounds, and mercury-containing products including volume of elemental mercury, mercury compounds, or mercury-containing products produced, imported, or processed; location where these products are stored; and industries into which these products are distributed in commerce. Five procedural tasks are considered in the estimation of respondent burden. The four respondent activities include: rule familiarization; form completion; CBI claim substantiation; form submission; and recordkeeping. Rule familiarization requires that reporting entities learn the 8(b) rule and its various requirements. Entities must then complete an electronic form providing the information listed above. If the submitter claims certain data elements as CBI, they must substantiate the claim by proving certain information supporting the need to keep the information confidential. The fourth task requires reporting businesses to submit electronically to EPA via CDX, EPA's electronic system for environmental data exchange. Lastly, entities must maintain records of the reported information. Table 1 provides a detailed description of the related Information Collection that corresponds to each activity.

**Table 1: Cross-walk between Industry Activities and Related Information Collections (ICs)**

Activity	Description	Related IC(s)
<b>Rule Familiarization</b>	Site staff must familiarize themselves with the requirements of the rule. This entails reading the rule, understanding the various reporting and administrative requirements, and determining the manner in which the reporting requirements will be met.	Rule Familiarization
<b>Preparation of Reports (Form Completion and Form Submission)</b>	Site staff must collect all required information regarding mercury production, storage, and/or distribution, including information to substantiate any claims of data confidentiality. Sites are required to submit one form each. The information must be collected and reviewed internally before submission.	Prepare Report, CBI Claim Substantiation, Electronic Submission
<b>Recordkeeping</b>	Respondents must keep records supporting their submissions.	Prepare and Submit Report, and Maintain Records - Partial Report Prepare and Submit Report, and Maintain Records- Full Report

Table 2 provides a summary of typical respondent burden for compliance determination, rule familiarization, CBI claim substantiation, electronic reporting, and recordkeeping. In the proposed rule’s Economic Analysis (EPA, 2017), it is emphasized that compliance determination and certain aspects of electronic reporting are one-time, first-year costs only. Because this ICR covers only one reporting period (information is required every three years), all costs considered are first-year costs.

Burden to complete the reporting form depends on the type of mercury handled and the company’s reporting status to other rules (a reporter is exempt from completing certain questions if the company already submits the information through another reporting program). EPA calculated burden estimates for each element of the collection form based on EPA’s *Supporting Statement for a Request for OMB Review under the Paperwork Reduction Act: Final Rule Addendum to Partial Update of the TSCA Section 8(b) TSCA Inventory Data Base, Production and Site Reports* (EPA ICR No.: 1884.06, OMB Control No 2070-0162) (EPA, 2012), and on EPA’s *Economic Analysis of the Final Significant New Use Rule for Long-Chain Perfluoroalkyl Carboxylate Chemical Substances and Perfluoroalkyl Sulfonate Chemical Substances* (EPA-HQ-OPPT-2013-0225) (EPA, 2014). Industry burden estimate to complete the reporting form is shown in Table 3 for manufacturers/processors of elemental mercury, and Table 4 for manufacturers/processors of mercury compounds. Table 5 shows the industry burden for manufacturers/processors of both elemental mercury and mercury compounds – the sum of the activities in both Tables 3 and 4 (without counting compliance determination twice). Based on the total burdens presented in Tables 3 through 5 for the various types of respondents, the reporting burden to complete one form ranges from a low of 46.8 hours for manufacturers/processors of elemental mercury who report to CDR, to a high of 124 hours for manufacturers/processors of both elemental mercury and mercury compounds who do not report to either CDR or IMERC.

More detailed information on the derivation of these estimates is found in the *Economic Analysis for the Proposed TSCA Section 8(b) Reporting Requirements for Mercury, Mercury Compounds, and Mercury-containing Products* (EPA, 2017).

**Table 2: Industry Burden for Compliance Determination, Rule Familiarization, CBI Claim Substantiation, Electronic Reporting and Recordkeeping**

Activity	Clerical Burden	Technical	Managerial	Attorney	Total
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	(hours)	Burden (hours)	Burden (hours)	Burden (hours)	Burden (hours)
Compliance Determination	0	2.5	0	0	2.5
Rule Familiarization	0	19	9	0	28
CBI Claim Substantiation	0	0	3	3	6
Electronic Reporting	0	0.97	0.49	0	1.46
Recordkeeping	0.5	0.5	0	0	1

**Table 3. Industry Burden for Form Completion: Manufacturers/Processors of Elemental Mercury**

Question Number	Reporting Element	Reporter Category	Technical Labor Burden (hours)	Managerial Labor Burden (hours)	Total Labor Burden (hours)
	Company Information	CDR, IMERC, other	0.04	0.02	0.06
Q1 A	Volume of elemental mercury manufactured in 2019	IMERC, other	1.03	0.25	1.28
Q1 B	Volume and location of manufactured elemental mercury stored	CDR, IMERC, other	0.2	0.5	0.7
Q1 C	Volume and-destination industry of manufactured elemental mercury distributed into domestic commerce	CDR, IMERC, other	1.26	0.45	1.71
Q2 A1	Volume and-origin of elemental mercury imported	IMERC, other	2.06	0.5	2.56
Q2 A2	Origin of elemental mercury imported	CDR	1.03	0.25	1.28
Q2 B	Volume and location of imported elemental mercury stored	CDR, IMERC, other	0.2	0.5	0.7
Q2 C	Volume and destination industry of imported elemental mercury distributed into domestic commerce	CDR, IMERC, other	1.26	0.45	1.71
Q3 A	Volume of elemental mercury used in manufacturing mercury-added products	CDR, IMERC, other	1.03	0.25	1.28
Q3 C1	Volume and destination industry of elemental mercury distributed into domestic commerce	CDR, other	1.26	0.45	1.71
Q3 C2	Destination industry of elemental mercury distributed into domestic commerce	IMERC	0.63	0.23	0.86
Q3 D	Volume-and destination country of elemental mercury exported in mercury-added products	CDR, IMERC, other	2.06	0.5	2.56
Q3 E	List of elemental mercury-added products manufactured [Products categories/subcategories]	CDR, IMERC, other	9.3	0	9.3
Q4 A	Volume and origin of elemental mercury imported in elemental mercury-added products	CDR, IMERC, other	4.04	0	4.04
Q4 C	Volume and destination industry of elemental mercury in imported elemental mercury-added products distributed into domestic commerce	CDR, IMERC, other	1.26	0.45	1.71
Q4 D	Volume and destination country-of elemental mercury in imported elemental mercury-added products exported	CDR, IMERC, other	2.06	0.5	.56 <sup>2</sup>
Q4 E	List of elemental mercury-added products imported [Products	CDR, IMERC, other	9.3	0	.3 <sup>9</sup>



Question Number	Reporting Element	Reporter Category	Technical Labor Burden (hours)	Managerial Labor Burden (hours)	Total Labor Burden (hours)
	categories/subcategories]				
Q5 A	Volume of elemental mercury used in a manufacturing process	CDR, IMERC, other	1.03	0.25	1.28
Q5 B	Volume and location of elemental mercury to be used in a manufacturing process stored	CDR, IMERC, other	0.2	0.5	0.7
Q5 C	Volume and destination industry-of elemental mercury distributed into domestic commerce in final products as a result of manufacturing process	CDR, IMERC, other	1.26	0.45	1.71
Q5 D	Volume and destination country-of elemental mercury exported in final products as a result of manufacturing process	CDR, IMERC, other	2.06	0.5	2.56
Q5 E	List of purposes for which elemental mercury was used in a manufacturing process [Function/Process: Manufacturing Process Categories; Intentional Uses in Manufacturing Process]	CDR, IMERC, other	1.68	0.25	1.93
	<b>TOTAL BURDEN, CDR reporters</b>		<b>40.5</b>	<b>6.3</b>	<b>46.8</b>
	<b>TOTAL BURDEN, IMERC reporters</b>		<b>42.0</b>	<b>6.5</b>	<b>48.5</b>
	<b>TOTAL BURDEN, other</b>		<b>42.6</b>	<b>6.8</b>	<b>49.4</b>

**Table 4. Industry Burden for Form Completion: Manufacturers/Processors of Mercury Compounds**

Question Number	Reporting Element	Reporter Category	Technical Labor Burden (hours)	Managerial Labor Burden (hours)	Total Labor Burden (hours)
	Company Information	CDR, IMERC, other	0.04	0.02	0.06
Q6 A1	Volume of mercury compounds manufactured	IMERC, other	1.03	0.25	1.28
Q6 A2	Volume of elemental mercury used to manufacture mercury compounds	CDR, IMERC, other	1.03	0.25	1.28
Q6 B	Volume and location of mercury compounds stored	CDR, IMERC, other	0.2	0.5	0.7
Q6 C	Volume and destination industry of mercury compounds distributed into commerce	CDR, IMERC, other	1.26	0.45	1.71
Q6 D1	Volume and destination country of mercury compounds exported	IMERC, other	2.06	0.5	2.56
Q6 D2	Destination country of mercury compounds exported	CDR	1.03	0.25	1.28
Q6 E	List of mercury compounds manufactured	IMERC, other	9.3	0.25	9.55
Q7 A1	Volume and origin of mercury compounds	IMERC, other	2.06	0.5	2.56

Question Number	Reporting Element	Reporter Category	Technical Labor Burden (hours)	Managerial Labor Burden (hours)	Total Labor Burden (hours)
	imported				
Q7 A2	Origin of mercury compounds imported	CDR	1.03	0.25	1.28
Q7 B	Volume and location-of imported mercury compounds stored	CDR, IMERC, other	0.2	0.5	0.7
Q7 C	Volume and destination industry of imported mercury compounds distributed into domestic commerce	CDR, IMERC, other	1.26	0.45	1.71
Q7 D1	Volume and destination country of imported mercury compounds exported	IMERC, other	2.06	0.5	2.56
Q7 D2	Destination country of imported mercury compounds exported	CDR	1.03	0.25	1.28
Q7 E	List of mercury compounds imported	IMERC, other	9.3	0	9.3
Q8 A	Volume of mercury compounds used in manufacturing of mercury compound-added products	CDR, IMERC, other	1.03	0.25	1.28
Q8 C1	Volume-and destination industry of mercury compounds in mercury compound-added products distributed into domestic commerce	CDR, other	1.26	0.45	1.71
Q8 C2	Destination industry of mercury compounds in mercury compound-added products distributed into domestic commerce	IMERC	0.63	0.23	0.86
Q8 D	Volume and destination country-of mercury compounds exported in mercury compound-added products	CDR, IMERC, other	2.06	0.5	2.56
Q8 E	List of mercury compound-added products manufactured	CDR, IMERC, other	9.3	0	9.3
Q9 A	Volume and origin of mercury compounds in mercury compound-added products imported	CDR, IMERC, other	4.04	0	4.04
Q9 C1	Volume and destination industry of imported mercury compounds in mercury compound-added products distributed into domestic commerce	CDR, other	1.26	0.45	1.71
Q9 C2	Destination industry of imported mercury compounds in mercury compound-added products distributed into domestic commerce	IMERC	0.63	0.23	0.86
Q9 D	Volume and destination country-of imported mercury compounds in mercury compound-added products exported	CDR, IMERC, other	2.06	0.5	2.56
Q9 E	List of mercury compound-added products imported	CDR, IMERC, other	9.3	0.25	9.55
Q10 A	Volume of mercury compounds used in a manufacturing process	CDR, IMERC, other	1.03	0.25	1.28
Q10 B	Volume-and location of mercury compounds used in a manufacturing process stored	CDR, IMERC, other	0.2	0.5	0.7
Q10 C	Volume and destination industry of mercury compounds in final products as a result of manufacturing process distributed into domestic commerce	CDR, IMERC, other	1.26	0.45	1.71

Question Number	Reporting Element	Reporter Category	Technical Labor Burden (hours)	Managerial Labor Burden (hours)	Total Labor Burden (hours)
Q10 D	Quantity-and destination country of mercury compounds in final products as a result of manufacturing process exported	CDR, IMERC, other	2.06	0.5	2.56
Q10 E	List of purposes for which mercury compound was used in a manufacturing process [Function/Process: Manufacturing Process Categories; Intentional Uses in Manufacturing Process]	CDR, IMERC, other	1.68	0.25	1.93
	<b>TOTAL BURDEN, CDR reporters</b>		<b>43.6</b>	<b>7.3</b>	<b>50.9</b>
	<b>TOTAL BURDEN, IMERC reporters</b>		<b>65.1</b>	<b>8.1</b>	<b>73.2</b>
	<b>TOTAL BURDEN, other</b>		<b>66.3</b>	<b>8.5</b>	<b>74.9</b>

**Table 5. Industry Burden for Form Completion: Manufacturers/Processors of Elemental Mercury and Mercury Compounds**

<i>Reporting Element (as shown in Tables 3 and 4)</i>	Technical Labor Burden (hours)	Managerial Labor Burden (hours)	Total Labor Burden (hours)
<b>TOTAL BURDEN, CDR reporters</b>	84.1	13.5	97.6
<b>TOTAL BURDEN, IMERC reporters</b>	107.0	14.6	121.6
<b>TOTAL BURDEN, other</b>	108.9	15.3	124.2

### (b) Estimating Respondent Cost

To estimate costs, EPA multiplies burden estimates by standard wage rates for attorney, managerial, technical, and clerical levels developed from information published by the Bureau of Labor Statistics (BLS) and a method outlined in the document *Wage Rates for Economic Analyses of the Toxics Release Inventory Program* (EPA, 2002b). Wage data for managerial, technical, and clerical staff was gathered for manufacturing industries from *Employer Costs for Employee Compensation Supplemental Tables: December 2016* (BLS, 2017a). Additionally, wage rates for attorney level were gathered from the *BLS Occupational Employment Statistics (OES) May 2016 National Industry-Specific Occupational Employment and Wage Estimates* (BLS, 2017b).

The cost of fringe benefits, such as health insurance and vacation, is taken for each labor category from the same ECEC series. Following the methodology outlined in (EPA, 2002b), fringe benefits are calculated as a percentage of total wages for each category. Since the fringe benefits for attorney were not available from the BLS report, EPA applied the managerial fringe benefit to wage ratio to this wage as well. EPA added 17 percent to the wages in each category to account for overhead, based on information provided by the chemical industry and chemical industry trade associations in the *Revised Economic Analysis for the Amended Inventory Update Rule: Final Report* (EPA, 2002a) and *Wage Rates for Economic Analyses of the Toxics Release Inventory Program* (2002b). The wages for each of the three categories were then multiplied by benefits and overhead factors to estimate loaded, annual salaries in year 2016 dollars. Table 6 contains the loaded wage rates for the managerial, technical and clerical occupation categories.

**Table 6: Derivation of Loaded Wage Rates for the Private Manufacturing Sector in 2016\$**

Labor Category	Wage	Fringe Benefits	Fringes as % of Wage	Overhead % of Wage <sup>3</sup>	Fringe + Overhead Factor	Loaded Wages
	(a)	(b)	(c) = (b)/(a)	(d)	(e)=(1)+(c)+(d)	(f) = (a) x (e)
<b>Attorney</b> <sup>1</sup>	\$67.65	--	49.21%	17%	1.66	\$112.30
<b>Managerial</b> <sup>2</sup>	\$50.09	\$24.65	49.21%	17%	1.66	\$83.15
<b>Technical</b> <sup>2</sup>	\$45.66	\$24.98	54.71%	17%	1.72	\$78.54
<b>Clerical</b> <sup>2</sup>	\$20.29	\$10.52	51.85%	17%	1.69	\$34.29

**Sources:**

<sup>1</sup>BLS Occupational Employment Statistics (OES) May 2016 National Industry-Specific Occupational Employment and Wage Estimates (BLS, 2017b)

<sup>2</sup>Employer Costs for Employee Compensation Supplementary Tables: December 2016, US Bureau of Labor Statistics (BLS, 2017a)

<sup>3</sup>An overhead rate of 17 percent was estimated based on industry data gathered for the *Revised Economic Analysis for the Amended Inventory Update Rule: Final Report* (EPA, 2002a) and *Wage Rates for Economic Analyses of the Toxics Release Inventory Program*. (EPA, 2002b)

Table 7 contains the cost per activity of completing a form for one respondent, for each respondent type. To obtain these costs, burden hours presented in Tables 2 through 5 were multiplied by the corresponding loaded wage rate in Table 6. EPA estimates that the total cost for reviewing the rule and completing and submitting one report with recordkeeping ranges between approximately \$6,900 and \$13,000, depending on the kind of mercury and reporting status. Because the data collection will occur only once during the ICR time period, there are no costs associated with Years 2 and 3.

**Table 7: Industry Cost, by Activity and Type of Respondent (2016\$)**

Submitter Type	Clerical Burden (at \$34.29/hour)	Technical Burden (at \$78.54/hour)	Managerial Burden (at \$83.15/hour)	Attorney Burden (at \$112.30/hour)	Total Cost
	(a)	(b)	(c)	(d)	(e) =(a)+(b)+(c)+(d)
<b>COMPLIANCE DETERMINATION</b>					
All	\$0	\$196.35	\$0	\$0	\$196.35
<b>RULE FAMILIARIZATION</b>					
All	\$0	\$1,492	\$748	\$0	\$2,241
<b>FORM COMPLETION</b>					
Manufacturers/Processors of Elemental Mercury, CDR reporters	\$0	\$3,183	\$521	\$0	\$3,705
Manufacturers/Processors of Elemental Mercury, IMERC reporters	\$0	\$3,296	\$544	\$0	\$3,840
Manufacturers/Processors of Elemental Mercury, other	\$0	\$3,345	\$563	\$0	\$3,908
Manufacturers/Processors of Mercury Compounds, CDR reporters	\$0	\$3,426	\$605	\$0	\$4,030
Manufacturers/Processors of Mercury Compounds, IMERC reporters	\$0	\$5,111	\$671	\$0	\$5,782
Manufacturers/Processors of Mercury Compounds, other	\$0	\$5,210	\$708	\$0	\$5,919
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, CDR reporters	\$0	\$6,606	\$1,124	\$0	\$7,730
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, IMERC reporters	\$0	\$8,404	\$1,214	\$0	\$9,618
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, other	\$0	\$8,552	\$1,270	\$0	\$9,822
<b>CBI CLAIM SUBSTANTIATION</b>					
All	\$0	\$0	\$249	\$337	\$586
<b>ELECTRONIC REPORTING</b>					
All	\$0	\$76	\$41	\$0	\$117
<b>RECORDKEEPING</b>					
All	\$17.15	\$39.27	\$0.00	\$0.00	\$56.42
<b>TOTAL BURDEN PER REPORT</b>					
Manufacturers/Processors of Elemental Mercury, CDR reporters	\$17.15	\$4,987	\$1,560	\$336.90	<b>\$6,901</b>
Manufacturers/Processors of Elemental Mercury, IMERC reporters	\$17.15	\$5,100	\$1,583	\$336.90	<b>\$7,036</b>

Manufacturers/Processors of Elemental Mercury, other	\$17.15	\$5,149	\$1,601	\$336.90	<b>\$7,105</b>
Manufacturers/Processors of Mercury Compounds, CDR reporters	\$17.15	\$5,230	\$1,643	\$336.90	<b>\$7,227</b>
Manufacturers/Processors of Mercury Compounds, IMERC reporters	\$17.15	\$6,915	\$1,710	\$336.90	<b>\$8,979</b>
Manufacturers/Processors of Mercury Compounds, other	\$17.15	\$7,014	\$1,747	\$336.90	<b>\$9,115</b>
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, CDR reporters	\$17.15	\$8,410	\$2,163	\$336.90	<b>\$10,927</b>
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, IMERC reporters	\$17.15	\$10,208	\$2,253	\$336.90	<b>\$12,814</b>
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, other	\$17.15	\$10,356	\$2,308	\$336.90	<b>\$13,019</b>

### 6(c) Estimating Agency Burden and Cost

EPA is responsible for the following activities associated with administering this rule:

- Industry and public assistance;
- Data processing and systems support;

Costs related to EPA activities that involve using the data are not included. EPA has estimated the Agency burden resulting from the new requirements in TSCA for substantiation of CBI claims made as a result of this proposed rule. EPA will further refine these estimates when it revises the cost and estimates for the ICR for 40 CFR part 2 based on the new CBI substantiation requirements.

Agency personnel are responsible for all tasks associated with the rule, and none of the work is estimated to be completed by contractor staff. EPA labor costs are based on annual federal wage rates published by the Office of Personnel Management for the Washington-Baltimore-Northern Virginia, DC-MD-PA-VA-WV Locality Pay Area for 2016 (OPM, 2016). Wages are presented in terms of GS-level and step. Employees at the federal GS-13, Step 5 level will conduct the collection and administrative activities under the rule. A federal GS-14, Step 5 will assist with the review of the CBI claim substantiations. Unloaded wage rates for 2016 for both of these employees are presented in Table 8. Following the methodology outlined in *Instructions for Preparing Information Collection Requests (ICRs)* (EPA, 1992), EPA added 60 percent to the wage rate to account for fringe benefits and overhead costs. Table 8 derives the loaded wage rates for Agency staff at the GS-13 Step 5 level.

**Table 8: Derivation of Loaded Agency Wage Rates (2016\$)**

Labor Category	Pay Grade	Wage Rate	Overhead and Fringe Benefits (% of wages)	Overhead and Fringe Benefit Cost	Total
Technical Labor	GS 13 Step 5	\$50.04	60%	\$30.02	<b>\$80.06</b>
Attorney Labor	GS 14 Step 5	\$59.13	60%	\$35.48	<b>\$94.61</b>

**Source:** The unloaded Federal salary for 2016 is from the Office of Personnel Management salary table for Washington-Baltimore-Northern Virginia (OPM, 2016).

Table 9 contains the burden and cost per report for all EPA staff activities. All activities performed by EPA staff are dependent on the number of reports submitted to EPA. The burden for industry and public assistance is approximately 1.25 hours per report and the total cost per-report is approximately \$100. The burden for data processing and systems support is approximately 3.13 hours and the cost per-report is approximately \$251. The total burden for review of CBI claim substantiations is approximately 2 hours and the cost per report is approximately \$182. The burden and cost of processing each form is derived in the proposed rule’s Economic Analysis (EPA, 2017).

**Table 9: EPA Staff Burden and Cost of Processing One Report**

EPA Activity	Technical Labor (at \$80.06/hour)		Attorney Labor (at \$94.61/hour)		Total Labor Cost	
	Burden (Hours)	Cost (2016\$)	Burden (Hours)	Cost (2016\$)	Burden	Cost (2016\$)
Industry/Public Assistance	1.25	\$100	0	\$0	1.25	\$100
Data Processing and Systems Support Personnel	3.13	\$251	0	\$0	3.13	\$251
Review of CBI claim substantiations	0.5	\$40	1.5	\$142	2	\$182
<b>Total, per report</b>	<b>4.88</b>	<b>\$391</b>	<b>1.5</b>	<b>\$142</b>	<b>6.38</b>	<b>\$533</b>

**Note:** Some burden estimate subtotals may not calculate due to rounding of unit burden estimates.

### 6(d) Estimating the Respondent Universe

To identify the universe of sites potentially subject to the proposed rule, EPA used three sources: the IMERC database, EPA CDR data, and EPA TRI data.

EPA accessed the IMERC database online (NEWMOA, 2016c) and obtained a list of all of the submitter companies within the database. For this analysis, EPA used only the companies contained in the database that provided a submission to IMERC in 2013 (the most recent reporting year at the time this analysis was performed). Among the 2013 submissions, companies that indicated that all of their uses of mercury are now phased out were not included. Therefore, the IMERC database yielded a list of companies with mercury-added products that were not phased out as of 2013. To the extent that some of the companies may have since discontinued the manufacture of mercury-added products, this may be an overestimation of the number of regulated entities. The IMERC database identified 318 relevant companies (considered sites for the purposes of this analysis<sup>57</sup>). The data does not distinguish between

<sup>57</sup> The IMERC database contains individual submissions for site locations of the same parent company.

elemental mercury-added and mercury compound-added products. EPA assumes that all of the IMERC reports are associated with elemental mercury rather than mercury compounds.

The most recent reporting year for which CDR information was publicly available at the time this analysis was performed was 2012. The non-confidential 2012 CDR data revealed only three sites manufacturing mercury compounds (mercury chloride and thimerosal); two of these sites also reported the manufacture of elemental mercury.

The most recent reporting year for which TRI information was publicly available at the time this analysis was performed was 2014. For the purpose of this analysis, EPA included TRI reporters of mercury and mercury compounds in the assumed universe of reporters, regardless of their responses as to how the chemical is manufactured, processed, or otherwise used, unless it was indicated that the mercury was manufactured or processed only as an impurity.<sup>58</sup> EPA further excluded reporters not generally known to manufacture mercury or mercury-added products or otherwise intentionally use mercury in a manufacturing process.<sup>59</sup> To the extent that any other reporters may not “intentionally” use mercury, this may be an overestimation of the number of regulated entities. Thus, TRI data for 2014 yielded a total of 186 reports for mercury, and 380 reports for mercury compounds.

Using the combined list of sites reporting to IMERC, CDR, and/or TRI, EPA identified any duplicate site listings by identifying 1) sites with identical TRI Facility ID numbers and 2) sites reporting to both TRI and IMERC or CDR with matching facility names and addresses (there were no sites that reported to both IMERC and CDR). Duplicate sites were excluded. This results in a total of 750 unique sites that are potentially regulated under the proposed rule. The sites were categorized as to whether they handle elemental mercury, mercury compounds or both; and their current reporting status. (See the proposed rule’s Economic Analysis, EPA, 2017 for more information.) These results are shown in Table 10.

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<sup>58</sup> EPA is proposing that mercury or a mercury-containing byproduct manufactured for commercial purposes are subject to the proposed reporting requirements. Mercury generated as an impurity or a byproduct not used for commercial purposes is not subject to the proposed rule.

<sup>59</sup> EPA excluded TRI reporters classified under the following NAICS codes: 2211 (electric power generation, transmission, and distribution), 311 (Food Manufacturing), 312 (Beverage and Tobacco Product Manufacturing), 324110 (Petroleum Refineries), 324191 (Petroleum Lubricating Oil and Grease Manufacturing), 324199 (All Other Petroleum and Coal Products Manufacturing), 325110 (Petrochemical Manufacturing), 3273 (cement and concrete manufacturing), 327410 (Lime Manufacturing), 327420 (Gypsum Product Manufacturing), 3279 (nonmetallic mineral product manufacturing), 424710 (Petroleum Bulk Stations and Terminals), and 486910 (Pipeline Transportation of Refined Petroleum Products).



Table 10: Summary of Regulated Sites

Data Source	Number of Sites
<b>Reporters with only Elemental Mercury</b>	
CDR (unique sites report only to CDR)	0
IMERC (unique sites report only to IMERC)	318
TRI (unique sites report to neither CDR nor IMERC)	137
<b>Reporters with only Mercury Compounds</b>	
CDR (unique sites report only to CDR)	1
IMERC (unique sites report only to IMERC)	0
TRI (unique sites report to neither CDR nor IMERC)	278
<b>Reporters with Both Elemental Mercury and Mercury Compounds</b>	
CDR (unique sites report only to CDR)	2
IMERC (unique sites report only to IMERC)	0
TRI (unique sites report to neither CDR nor IMERC)	14
<b>TOTAL</b>	<b>750</b>
<b>Sources:</b>	
CDR – 2012 Chemical Data Reporting data (EPA, 2016c. Accessed December 2016)	
IMERC – 2013 IMERC submissions (NEWMOA, 2016c. Accessed November 2016)	
TRI – 2014 Toxics Release Inventory data (EPA, 2016d. Accessed November 2016)	

### 6(e) Bottom-Line Industry Burden and Cost Estimates

This section describes the estimated total social paperwork burden and cost of the section 8(b) rule over its first three years.

#### *Respondent tally*

To identify the universe of firms potentially subject to the proposed rule, EPA used three sources: the IMERC database, EPA CDR data, and EPA TRI data. EPA estimated the number of sites in each of the nine categories of reporters (see Table 10), for a total of 750 that would be subject to the rule. These sites are associated with 506 parent companies. More information of the derivation of these numbers can be found in the proposed rule’s Economic Analysis (EPA, 2017). Each site is expected to submit one response during each reporting period; there is one reporting period during this ICR period. Table 11 shows the number of responses for the various activities during the first reporting period.

**Table 11: Number of Responses per Activity**

<b>Activity</b>	<b>Total Number of Companies</b>	<b>Number of Responses/ Respondent</b>	<b>Total Number of Responses</b>
<b>Compliance Determination</b>	750	1	750
<b>Rule Familiarization</b>	750	1	750
<b>Form Completion</b>			
Manufacturers/Processors of Elemental Mercury, CDR reporters	0	1	0
Manufacturers/Processors of Elemental Mercury, IMERC reporters	318	1	318
Manufacturers/Processors of Elemental Mercury, other	137	1	137
Manufacturers/Processors of Mercury Compounds, CDR reporters	1	1	1
Manufacturers/Processors of Mercury Compounds, IMERC reporters	0	1	0
Manufacturers/Processors of Mercury Compounds, other	278	1	278
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, CDR reporters	2	1	2
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, IMERC reporters	0	1	0
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, other	14	1	14
<b>CBI Substantiation</b>	750	1	750
<b>Electronic Submission</b>	750	1	750
<b>Recordkeeping</b>	750	1	750

Table 12 presents the total estimated respondent burden and costs for mercury manufacturers/processors. As presented in Table 12, EPA estimates the total industry burden for a total of 750 mercury manufacturers to be approximately 74,000 hours and the total cost to be approximately \$5.9 million.

**Table 12: Total Estimated Respondent Burden and Cost Associated with this ICR Addendum**

<b>Respondent Type</b>	<b>Number of Sites</b>	<b>Reports per Site</b>	<b>Burden per Firm</b>	<b>Cost per Firm (2016\$)</b>	<b>Total Industry Burden</b>	<b>Total Industry Cost (2016\$)</b>
Manufacturers/Processors of Elemental Mercury, CDR reporters	0	1	86	\$6,901	0	\$0
Manufacturers/Processors of Elemental Mercury, IMERC reporters	318	1	87	\$7,036	27,814	\$2,237,578
Manufacturers/Processors of Elemental Mercury, other	137	1	88	\$7,105	12,100	\$973,330
Manufacturers/Processors of Mercury Compounds, CDR reporters	1	1	90	\$7,227	90	\$7,227
Manufacturers/Processors of Mercury Compounds, IMERC reporters	0	1	112	\$8,979	0	\$0
Manufacturers/Processors of Mercury Compounds, other	278	1	114	\$9,115	31,642	\$2,534,091
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, CDR reporters	2	1	137	\$10,927	273	\$21,854
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, IMERC reporters	0	1	161	\$12,814	0	\$0
Manufacturers/Processors of Both Elemental Mercury and Mercury Compounds, other	14	1	163	\$13,019	2,284	\$182,260
<b>TOTAL</b>	<b>750</b>				<b>74,202</b>	<b>\$5,956,339</b>

Table 13 presents the estimated total and average annual burden and cost associated with this ICR addendum. EPA estimates the annual average burden and cost over three years at approximately 25,000 hours and \$2.0 million dollars, respectively, with a total burden of approximately 74,000 hours and \$5.9 million over the three-year period.

**Table 13: Estimated Annual Average Burden and Cost Associated with this ICR Addendum**

Year	Number of Respondents	Responses per Respondent	Average Burden per Response	Total Number of Responses	Total Burden Hours	Total Costs (2016\$)
1	750	1	98.94	750	74,202	\$5,956,339
2	0	0	0	0	0	\$0
3	0	0	0	0	0	\$0
<b>Total</b>	<b>750</b>	<b>1</b>	<b>98.94</b>	<b>750</b>	<b>74,202</b>	<b>5,956,339</b>
<b>Average per Year</b>	<b>250</b>	<b>0.33</b>	<b>32.98</b>	<b>250</b>	<b>24,734</b>	<b>1,985,446</b>

**Agency Tally**

Table 14 presents the Agency costs in the first year. EPA multiplied the costs per report by the total number of reports to calculate the total burden and cost associated with the number of reports EPA expects to be submitted. The total Agency burden for year one is approximately 4,785 hours with an estimated cost of \$0.40 million.

**Table 14: Total Cost and Burden of Agency Activities in the First Year (2016\$)**

Activity	Staff	Total Burden per Activity	Total Cost per Activity (2016\$)	Total Number of Units	Total Burden (Hours)	Total Cost (Millions 2016\$)
Industry/Public Assistance	EPA Employee (GS 13 Step 5)	1.25	\$100.08	750	938	\$75,060
Data Processing and System Support Personnel		3.13	\$250.59	750	2,348	\$187,943
Review of CBI Claim Substantiations		0.5	\$40.03	750	375	\$30,023
Review of CBI Claim Substantiations	EPA Employee (GS 14 Step 5)	1.5	\$141.92	750	1,125	\$106,440
<b>Total Burden and Cost</b>					<b>\$4,785</b>	<b>\$399,465</b>

**Note:** Some burden estimate subtotals may not calculate due to rounding of unit burden estimates.

**6(f) Reasons for Change in Burden**

This is a new data collection activity resulting from the TSCA amendments, which requires EPA to collect information to assist in the preparation of an “inventory of mercury supply, use, and trade in the United States.” As such, the change being implemented in this ICR period is the addition of new burden and cost, as presented in Table 13 and Table 14. This increase is solely due to program changes that result from the new reporting requirements for manufacturers/processors of mercury and mercury-containing products. The annual average burden to industry for this ICR period is 24,734 hours per year.

## 6(g) Burden Statement

The annual public burden for this collection of information is estimated to average approximately 33 hours per respondent over the three-year period. According to the Paperwork Reduction Act, “burden” means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For this collection it includes the time needed to review and understand instructions; prepare and submit reports (including searching data sources); complete and review the collection of information; transmit the information; and keep records.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number for this information collection appears above. The OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the Federal Register when approved, are listed in 40 CFR Part 9, are displayed either by publication in the Federal Register or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR Part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a docket for this ICR under Docket ID No. EPA-HQ-OPPT-2017-0421 which is available for public viewing at the Pollution Prevention and Toxics Docket in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1544 and the telephone number for the Pollution Prevention and Toxics Docket is (202) 566-0280.

An electronic version of this docket is available at <http://www.regulations.gov/>. Use the federal government wide electronic docket and comment system at [www.regulations.gov](http://www.regulations.gov) to submit or view public comments, access the index listing of the docket contents, and to access those documents in the docket that are available electronically. Once in the system, select “advance search,” then key in the docket ID number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Office for EPA. Please include the EPA Docket ID No. EPA-HQ-OPPT-2017-0421 and OMB control number 2070-NEW in any correspondence.

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