



CONSULTATION DOCUMENT:  
PROPOSED AMENDMENTS TO  
THE PRODUCTS CONTAINING  
MERCURY REGULATIONS

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## 1 Introduction

The [Products Containing Mercury Regulations](#) (the regulations) were published in the Canada Gazette, Part II, on November 19, 2014 and came into force on November 8, 2015<sup>1</sup>. The regulations prohibit the import and manufacture of products containing mercury or any of its compounds, with some exemptions for essential products which have no technically or economically viable alternatives (e.g., certain medical and research applications, and dental amalgam). In the case of lamps, such as fluorescent lamps, rather than prohibiting them, the regulations set a limit on the amount of mercury that they can contain.

In October 2013, Canada signed the [Minamata Convention on Mercury](#) (the convention). In April 2017, Canada ratified the convention, becoming the 41<sup>st</sup> Party to the treaty<sup>2</sup>. The convention includes measures to phase-out, by 2020, certain mercury-containing products, such as lamps.<sup>3</sup> Amendments to the regulations are required to bring Canadian requirements in line with the convention. Other amendments are also proposed in order to align with recent industry standards and international regulatory initiatives.

This consultation is intended to inform stakeholders on the main elements of the proposed amendments and provide the public with an opportunity to submit comments.

In addition, the Government of Canada enacted the [National Strategy for Safe and Environmentally Sound Disposal of Lamps Containing Mercury Act](#) in June 2017, requiring the development of a national strategy for end-of-life management of lamps containing mercury<sup>4</sup>. As part of this consultation on the proposed amendments to the regulations, stakeholders are also invited to provide input on potential options for improving end-of-life management of lamps containing mercury in Canada. Please see section 7 for further details.

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<sup>1</sup> “Current Regulations – Products Containing Mercury Regulations (SOR/2014-254).” Environment and Climate Change Canada: <http://ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=203> (accessed in January 2018).

<sup>2</sup> “Mercury: Minamata Convention.” Environment and Climate Change Canada: <https://www.ec.gc.ca/international/default.asp?lang=En&n=5C03713D-1> (accessed in January 2018).

<sup>3</sup> “Convention.” UN Environment: <http://www.mercuryconvention.org/Convention/tabid/3426/language/en-US/Default.aspx> (accessed in January 2018).

<sup>4</sup> National Strategy for Safe and Environmentally Sound Disposal of Lamps Containing Mercury Act (S.C. 2017, c. 16): <http://laws-lois.justice.gc.ca/eng/acts/N-16.8/> (accessed in January 2018).

## 1.1 Objectives

Environment and Climate Change Canada (ECCC) is committed to ensuring that all initiatives aimed at developing regulatory measures include a process of meaningful and effective consultation with stakeholders. As such, stakeholders are invited to contribute to this consultation process by providing initial input on the proposed amendments to the regulations, in advance of publication in the Canada Gazette, Part I. Please see section 5 for further details.

This consultation also represents an opportunity for ECCC to obtain information on the costs and benefits of the proposed amendments to Canadians and to Canadian industry. The information collected will be compiled and shared with stakeholders and the public as part of the regulatory impact analysis statement that will accompany the publication of the proposed and final amended regulations.

## 2 Background

### 2.1 Substance information

Mercury is a heavy metal that can be present in the environment in many different forms. Elemental mercury is naturally present in the Earth's crust, in raw materials such as coal, crude oil and other fossil fuels, and in minerals such as limestone, soils and metal ores (including zinc, copper and gold). Mercury also enters into the environment as a result of natural processes such as volcanic activity and forest fires.

Mercury can also be released into the environment as a result of human activity, such as the combustion of coal and refined petroleum products, the extraction of metals from ore, and the use and disposal of consumer products containing mercury.

Once in the environment, mercury can be converted to various forms. For example, mercury can be transformed into a highly toxic compound called methyl mercury, which can accumulate in living organisms and biomagnify (i.e. increase in concentration) as it moves up the food chain. This is the form of mercury to which humans are most often exposed, primarily through consumption of fish and other seafood.

Mercury and its compounds are listed as [toxic substances](#) under the Canadian Environmental Protection Act, 1999 (CEPA)<sup>5</sup>. This enables the Government of Canada to propose and implement risk management instruments to reduce the risks to human health and the environment associated with mercury releases from anthropogenic sources.

### 2.2 The Minamata Convention on Mercury

Mercury pollution is a global problem that warrants international action due to the long-range atmospheric transport of mercury that can accumulate far from the original source of emissions. In fact, it is estimated that over 95% of mercury resulting from human activities that is deposited in Canada comes from foreign sources

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<sup>5</sup> "Toxic Substances List – Schedule 1." Environment and Climate Change Canada: <https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/substances-list/toxic/schedule-1.html> (accessed in January 2018).

and accumulates everywhere in Canada, including sensitive areas, such as the Canadian Arctic and the Great Lakes area.

The Minamata Convention on Mercury is a global, legally binding treaty that aims to protect the environment and human health by addressing all aspects of the mercury life-cycle. Specific actions include:

- controlling atmospheric emissions and releases
- phasing-out the manufacture, import, and export of listed products containing mercury by 2020
- reducing or eliminating the use of mercury in certain industrial processes such as polyurethane production and
- reducing the supply of mercury by, among other things, placing restrictions on the export of elemental mercury.

In April 2017, Canada ratified the Minamata Convention on Mercury, helping bring the treaty into force on August 16, 2017. As of January 10, 2018, there are 85 Parties to the treaty. In accordance with paragraph 1 of the article 6 of the convention, Canada also registered for a 5-year exemption on import, export and manufacture for three lamp categories, which will expire in 2025<sup>6</sup>. As a result, Canada is in compliance with the requirements of the treaty.

### 2.3 Risk management of mercury in Canada

Over the past several decades, the Government of Canada has implemented a wide range of regulatory and non-regulatory initiatives in collaboration with provincial and territorial governments, industry and other stakeholders to reduce mercury emissions. Canadian emissions of mercury from various industrial processes, such as electricity generation, smelting, and incineration, have been reduced by approximately 90% since the 1970s. Mercury emissions are currently being managed through federal, provincial and territorial legislation and programs.

In 2010, a [Risk Management Strategy for Mercury](#) was developed by ECCC and Health Canada. This strategy provided a comprehensive and consolidated description of the Government of Canada's progress in managing the risks associated with mercury. It also outlined objectives, priorities, actions under way or planned, and monitoring programs in place in 2010 to address the ongoing risks associated with mercury. This included the prevention pollution plans for dental amalgam waste and mercury switches in end-of-life vehicle, and the development of the Products Containing Mercury Regulations.<sup>7</sup> Over the past few years, four risk management instruments were developed or amended by the federal government to address mercury releases from anthropogenic sources.

The Notice Requiring the Preparation and Implementation of Pollution Prevention Plans in Respect of Mercury Releases from Dental Amalgam Waste was published in 2010. The notice outlines the requirements to implement pollution prevention plans for mercury releases from dental amalgam waste, by targeting dental facilities that have not implemented the best management practices (BMPs) set out in the notice. The BMPs include, but are not limited to installing a certified amalgam separator and contacting a waste carrier to ensure

<sup>6</sup> The exemptions apply to the following 3 lamps categories: linear fluorescent lamps for general lighting purposes, and cold cathode fluorescent lamps and external electrode fluorescent lamps for electronic displays.

<sup>7</sup> "Risk Management Strategy for Mercury". Environment Canada and Health Canada: [http://www.ec.gc.ca/doc/mercure-mercury/1241/index\\_e.htm](http://www.ec.gc.ca/doc/mercure-mercury/1241/index_e.htm) (accessed in January 2018).

proper recycling or disposal of the amalgam waste. A 2012 survey indicated that 97% of dental facilities in Canada were using certified dental amalgam separators.

In November 2014, the Government of Canada introduced the Products Containing Mercury Regulations to address the largest remaining uncontrolled source of mercury emissions in Canada which was the use and disposal of mercury containing products.

More recently, amendments were made to the [Export of Substances on the Export Control List Regulations](#), which impose controls on the export of substances listed on Schedule 3 of CEPA, also known as the export control list<sup>8</sup>. The regulations enable Canada to meet its obligations under the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade as well as its export obligations under the Stockholm Convention on Persistent Organic Pollutants. The regulations were amended on February 22, 2017 to also control the export of mercury, positioning Canada to meet trade obligations under the Minamata Convention on Mercury. Export of mixtures containing elemental mercury at a concentration of 95% or more by weight are restricted, with some limited exemptions.

Also, published in February 2017, the [Code of Practice for the Environmentally Sound Management of End-of-life Lamps Containing Mercury](#) is designed to encourage collectors, transporters and recyclers to incorporate best practices in their management of end-of-life mercury-containing lamps to prevent releases of mercury to the environment<sup>9</sup>. It is a voluntary tool developed to complement provincial, territorial and other initiatives. It is based on current environmentally sound management practices and concepts that have been developed by domestic and international bodies to prevent and reduce releases of mercury to the environment, taking into account economic and technical considerations. The code of practice is intended to be applicable to facilities and operators who handle, collect, store, transport or process end-of-life mercury-containing lamps in Canada. The best practices in the code of practice may be used to manage various types of mercury-containing lamps including fluorescent tubes and compact fluorescent light bulbs, fluomeric lamps, metal halide lamps, mercury vapour discharge lamps, sodium vapour lamps, cold cathode and external fluorescent lamps, and automotive high-intensity discharge lamps.

### 3 Proposed amendments

For the most part, the proposed amendments to the Products Containing Mercury Regulations aim to:

- fully align with requirements under the Minamata Convention for mercury-containing products, including lamps and mercury containing catalysts to produce polyurethane
- align further with other international initiatives
- clarify certain aspects of the regulations and
- address some administrative issues to facilitate the implementation of the regulations.

The main elements of the proposed amendments are outlined in the sections below.

<sup>8</sup> "Current Regulations – Export of Substances on the Export Control List Regulations (SOR/2013-88)." Environment and Climate Change Canada: <http://www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=208> (accessed in January 2018).

<sup>9</sup> "Code of practice for the environmentally sound management of end-of-life lamps containing mercury." Environment and Climate Change Canada: <https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/guidelines-objectives-codes-practice/sound-management-lamps-containing-mercury.html> (accessed in January 2018).

### 3.1 Alignment with the requirements under the Minamata Convention

#### 3.1.1 Adjustment of mercury content limits allowed for certain exempted products

The content limit currently allowed for three product categories listed in the schedule of the regulations must be adjusted to bring them in line with the requirements of article 4 of the convention. These product categories and their respective adjustments are as follows:

a) Item 3 of the schedule: Straight fluorescent lamps for general lighting purposes;

Under the Minamata Convention, linear (straight) fluorescent lamps (LFLs) are broken down into two subcategories: triband phosphor and halophosphate phosphor lamps. The convention will prohibit triband phosphor LFLs < 60 watts containing more than 5 milligrams (mg) of mercury per lamp and halophosphate phosphor LFLs ≤ 40 watts containing more than 10 mg of mercury per lamp, by 2020.

Currently, items 3(a) to 3(d) of the schedule of the regulations already meet the requirements for triband phosphor and halophosphate phosphor LFLs under the convention. However, the regulations establish a mercury content limit of:

- 10 mg per lamp for item 3(e) of the schedule (**T12, 4-foot or less, rapid start, medium bi-pin base**) and
- 15 mg per lamp for item 3(f) of the schedule (**T12, 8-foot, instant start, single pin base**).

Therefore, the limit for item 3(f) of the schedule (T12, 8-foot) will need to be lowered from 15 mg to a maximum of 10 mg of mercury per lamp in order to meet the requirements for halophosphate phosphor LFLs under the convention. Furthermore, although the information received to date by ECCC indicates that the mercury content limit for item 3(e) of the schedule (T12, 4-foot or less) meets the requirements for halophosphate phosphor LFLs under the Minamata Convention, ECCC would appreciate receiving comments to confirm this information. ECCC also welcomes comments on the possibility of decreasing the current mercury content limit of these lamps under 10 mg.

b) Item 10(a) of the schedule: Cold cathode fluorescent lamps – 1.5 m or less in length;

This category of cold cathode fluorescent lamps (CCFLs) includes two subcategories from the Minamata Convention: short length CCFLs (≤ 0.5 meter [m]) and medium length CCFLs (> 0.5 m and ≤ 1.5 m). The convention will prohibit short length CCFLs exceeding 3.5 mg of mercury per lamp and medium length CCFLs exceeding 5 mg of mercury per lamp, by 2020.

Under the regulations, the current mercury content limit for item 10(a) of the schedule is 10 mg per lamp. To meet the convention's requirements, ECCC is proposing to lower this limit to 3.5 mg of mercury. ECCC welcomes comments on the feasibility of this approach.

c) Item 11(a) of the schedule: External electrode fluorescent lamps – 1.5 m or less in length;

Similar to CCFLs, this category incorporates two subcategories from the Minamata Convention: short length external electrode fluorescent lamps (EEFLs) (≤ 0.5 m) and medium length EEFLs (> 0.5 m and ≤ 1.5 m). The convention will prohibit short length EEFLs exceeding 3.5 mg of mercury per lamp and medium length EEFLs exceeding 5 mg of mercury per lamp, by 2020.

Currently, the regulations establish a mercury content limit of 5 mg per lamp for item 11(a) of the schedule. ECCC is proposing to lower this limit to 3.5 mg of mercury. ECCC welcomes comments on the feasibility of this approach.

Table 1 below summarizes the amendments required to the regulations in order to align with the requirements of article 4 of the convention.

**Table 1: Summary of proposed amendments to the Products Containing Mercury Regulations to align with the Minamata Convention**

Products containing mercury	Prohibition under the Minamata Convention (Article 4, Annex A)	Prohibition under the Products Containing Mercury Regulations	Proposed amendment(s) to align with the Minamata Convention
Straight fluorescent lamps for general lighting purposes	By 2020, prohibit: (a) Triband phosphor < 60 watts with a mercury content exceeding 5 mg per lamp (b) Halophosphate phosphor ≤ 40 watts with a mercury content exceeding 10 mg per lamp.	Item 3 of the schedule prohibit the following straight fluorescent lamps: (a) T5, program start, with a normal lifetime (< 25,000 hours) with a mercury content exceeding 3 mg per lamp (b) T8, 4-foot or less, instant and program start, medium bi-pin base, with a normal lifetime (< 25,000 hours), with a mercury content exceeding 4 mg per lamp (c) T5, program start, with a long lifetime (≥ 25,000 hours), with a mercury content exceeding 5 mg per lamp (d) T8, 4-foot or less, instant and program start, medium bi-pin base, with a long lifetime (≥ 25,000 hours), with a mercury content exceeding 5 mg per lamp (e) T12, 4-foot or less, rapid start, medium bi-pin base, with a mercury content exceeding 10 mg per lamp (f) T12, 8-foot, instant start, single pin base, with a mercury content exceeding 15 mg per lamp.	<ul style="list-style-type: none"> <li>• Lower the mercury content limit of item 3(f) (T12, 8-foot) to 10 mg per lamp</li> <li>• Consult on compliance of the limit for item 3(e) (T12, 4-foot) and on possibility of decreasing the limit further for T12 lamps.</li> </ul>
Cold cathode fluorescent lamps	By 2020, prohibit CCFLs for electronic displays: (a) short length (≤ 0.5 m) with a mercury content exceeding 3.5 mg per lamp (b) medium length (> 0.5 m and ≤ 1.5 m) with a mercury content exceeding 5 mg per lamp (c) long length (> 1.5 m) with a mercury content exceeding 13 mg per lamp.	Item 10 of the schedule prohibit CCFLs of: (a) 1.5 m or less in length with a mercury content exceeding 10 mg per lamp (b) more than 1.5 m in length with a mercury content exceeding 13 mg per lamp.	<ul style="list-style-type: none"> <li>• Lower the mercury content limit for CCFLs of 1.5 m or less in length to 3.5 mg per lamp.</li> </ul>

Products containing mercury	Prohibition under the Minamata Convention (Article 4, Annex A)	Prohibition under the Products Containing Mercury Regulations	Proposed amendment(s) to align with the Minamata Convention
External electrode fluorescent lamps	By 2020, prohibit EEFLs for electronic displays: (a) short length ( $\leq 0.5$ m) with a mercury content exceeding 3.5 mg per lamp (b) medium length ( $> 0.5$ m and $\leq 1.5$ m) with a mercury content exceeding 5 mg per lamp (c) long length ( $> 1.5$ m) with a mercury content exceeding 13 mg per lamp.	Item 11 of the schedule prohibit EEFLs of: (a) 1.5 m or less in length with a mercury content exceeding 5 mg per lamp (b) more than 1.5 m in length with a mercury content exceeding 13 mg per lamp.	<ul style="list-style-type: none"> <li>Lower the mercury content limit for EEFLs of 1.5 m or less in length to 3.5 mg per lamp.</li> </ul>

### 3.1.2 Removing exemption or adding an exemption end date for catalysts used in the manufacturing of polyurethane (item 30 of the schedule)

Polyurethane is a versatile plastic material that can be found in many forms (e.g.: foams, coatings, adhesives, sealants, elastomers, etc.). It is used for countless applications in various sectors, such as the electronics, flooring, packaging, automotive, and constructions industries. In Canada, certain types of polyurethanes are currently produced using mercury-containing catalysts.

While Canada has implemented measures that meet the requirements of the Minamata Convention regarding production of polyurethane using mercury-containing catalysts under article 5 of the treaty on manufacturing processes, the convention aims for, but does not require, the phase-out of the use of mercury-containing catalysts in the manufacturing of polyurethane within 10 years of entry into force of the convention.

The European Union (EU) is also taking measures to restrict the manufacture and use of catalysts used in the manufacturing of polyurethane. In October 2017, the [Commission Regulation \(EU\) No. 848/2012](#) prohibited the manufacture, use and placement on the market of “five phenylmercury compounds [...] known to be used [...] as catalysts in the polyurethane systems used for coatings, adhesives, sealants and elastomer applications”<sup>10</sup>.

Considering that there are known alternatives to mercury-containing catalysts, ECCC is proposing to remove the exemption from the schedule of the regulations (item 30) or add an end date to the exemption.

## 3.2 Amendments to further align with initiatives abroad

ECCC remains committed to ensuring regulatory efficiency in the implementation of the regulations, including the benefits to the health of Canadians and the environment, as well as further alignment with initiatives abroad where possible, including the United States and European Union.

ECCC is therefore proposing the following amendments:

<sup>10</sup> “Document 32012R0848.” EUR-Lex: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0848> (accessed in January 2018).

### 3.2.1 Lowering mercury content limit for compact fluorescent lamps for general lighting purposes (item 2 of the schedule)

Since the development and the publication of the regulations, the mercury content limits for these compact fluorescent lamps (CFLs) have been further reduced in Europe.

Under the European Union [Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment](#) (Directive 2011/65/EU, also known as RoHS Directive), current mercury content limit for CFLs for general lighting purposes are the following:

- 2.5 mg per < 30 watts burner
- 3.5 mg per  $\geq$  30 watts and < 50 watts burner
- 5 mg per  $\geq$  50 watts and < 150 watts burner
- 15 mg per  $\geq$  150 watts burner and
- 5 mg per burner for special purposes.<sup>11</sup>

In the United States, the state of California adopted the same rules specified in the EU Directive by restricting the manufacture for sale, sale or offer for sale of general purpose lights that “contain levels of hazardous substances that would result in the prohibition of those general purpose lights being sold or offered for sale in the European Union pursuant to the RoHS Directive”.<sup>12</sup>

The Products Containing Mercury Regulations currently exempt CFLs for general lighting purposes with a maximum total quantity of mercury of 4 mg per lamp for item 2(a) of the schedule (CFLs  $\leq$  25 watts), and 5 mg per lamps for item 2(b) of the schedule (CFLs > 25 watts). In order to increase the environmental benefits of the regulations, ECCC is proposing to lower the mercury content of CFLs that operate at:

- $\leq$  25 watts to 2.5 mg per lamp and
- > 25 watts to 3.5 mg per lamps.

### 3.2.2 Adding an end date for the exemption for the compact fluorescent lamps

Light emitting diodes (LEDs) have become more accessible and affordable over the last few years and could eventually replace CFLs. Furthermore, some players have already announced that they are stopping the production or sale of CFLs<sup>13,14</sup>. ECCC is acknowledging this trend and is interested in receiving comments on the possible addition of 2023 as an end date for the exemption for the CFLs for general lighting purposes (item 2 of the schedule of the regulations).

## 3.3 Amendments to the automobile headlamps exemption (item 9 of the schedule)

The regulations currently exempt automobile headlamps with a maximum total quantity of mercury of 10 mg per lamp. Use of mercury-containing automobile headlamps is now very limited to certain models of

<sup>11</sup> “Document 32011L0065.” EUR-Lex: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32011L0065> (accessed in January 2018).

<sup>12</sup> “Lighting Toxics Reductions.” California Department of Toxic Substances Control: <http://dtsc.ca.gov/HazardousWaste/UniversalWaste/LightingToxicsReduction.cfm> (accessed in January 2018).

<sup>13</sup> “Say Goodbye, Say Hello: GE Stops Making CFLs, Says Go, Go, Go To LEDs.” GE Reports: <http://www.ge.com/reports/say-goodbye-say-hello-ge-stops-making-cfls-says-go-go-go-to-leds/> (accessed in January 2018).

<sup>14</sup> “Disrupting the disrupter – Tesla faces the challenge of the mini-fluorescent” CBCnews |Business: <http://www.cbc.ca/news/business/disruption-mercury-bulbs-tesla-1.4192692> (accessed in January 2018).

automobiles and is likely to be completely phased-out in the near future. Considering that there are accessible and known mercury-free alternatives, ECCC is proposing to remove the exemption for automobile headlamps. ECCC could consider adding a transition period and is proposing 2023 as an end date, which should cover model-year of 2024 as the last model-year that could have mercury-containing automobile headlamps.

It should be noted that the exemption for replacement parts (item 34 of the schedule of the regulations) would still apply.

### **3.4 Amendments to the non-applications (section 2 of the regulations)**

Section 2 of the regulations contains the list of products that are excluded from the application of the regulations. To align with other regulations, ECCC is proposing two amendments:

#### **3.4.1 To clarify paragraph 2(f) of the regulations – Pest control products as defined in subsection 2(1) of the Pest Control Products Act**

ECCC is proposing to clarify that mercury-containing lamps used for pest control purposes, such as UV lamps, are not excluded from the application of the regulations under paragraph 2(f) of the regulations. They would be covered by item 14 of the schedule of the regulations (fluorescent and discharge lamps other than those referred to in items 2 to 13), and thus subject to labelling, reporting and record keeping requirements.

#### **3.4.2 Addition of a non-application for personal use**

In order to align with other product-related regulations, such as the Prohibition of Certain Toxic Substances Regulations, ECCC is proposing to add a personal use exclusion in section 2 of the regulations to allow the entry in Canada of mercury-containing products used or intended to be used for a personal use. The objective of this exclusion would be to clarify that individuals traveling with personal belongings containing mercury (e.g.: some laptops with a mercury-containing component) in compliance with the regulations can enter the country without being considered importers of products containing mercury under the regulations. Those belongings would need to already be in the possession of the individuals before their travel. It should be noted that this non-application is not intended to allow individuals to use this as a back-door to bring into Canada products (that were not already in the possession of the individuals) that would otherwise be prohibited, such as an antique barometer or new mercury thermometer.

### **3.5 Adjustments to certain elements of the labelling requirements (sections 8 and 9 of the regulations)**

ECCC's overall intentions with the labelling requirements are to inform consumers they are purchasing a mercury-containing product and to ensure they are aware the product requires appropriate end-of-life management. To address comments submitted by stakeholders, ECCC is proposing the following amendments to the labelling requirements:

#### **3.5.1 To clarify that the website found on the label has to be available in both official languages**

The intent of the regulations is to have the information provided on the label in both official languages. ECCC is proposing to clarify that the information provided on a website in order to comply with paragraphs 8(1)(b) and 8(1)(c) also has to be available in both French and English.

3.5.2 To evaluate the relevance of the Hg symbol labelling requirements for certain items of the schedule

ECCC will evaluate the particularities associated with the import and manufacture of some commercial and industrial products containing mercury subject to section 9 of the regulations (e.g. cold cathode tubing and electrode for use in cold cathode tubing for signage or cove lighting, listed in items 12 and 13 of the schedule of the regulations) in order to determine if the Hg symbol requirement fulfills its intended objective.

3.5.3 To add a requirement to identify component(s) containing mercury on the label

To improve consumer information related to products containing mercury, ECCC is proposing to add a requirement to identify and specify on the label which component (incorporated in a product) contains mercury. This is the approach taken by the Interstate Mercury Education and Reduction Clearinghouse (IMERC) in the United States<sup>15</sup>.

### **3.6 Amendments to testing requirements to broaden the accreditation bodies recognized under the regulations (section 10 of the regulations)**

ECCC is proposing to broaden the accreditation bodies recognized under the regulations to include signatories to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

This amendment is intended to align with the other ECCC regulations and to facilitate trade or prevent technical barriers to trade.

### **3.7 Amendments to the reporting requirements (section 12 of the regulations)**

The purpose of the reporting requirements is for the Government to know the quantity of mercury entering the country in products in order to assess the effectiveness of the regulations. To better achieve this objective, two amendments are proposed:

3.7.1 To add the requirement of providing a Canadian address in the report

To facilitate the enforcement of the regulations, ECCC is proposing to add the requirement that importers and manufacturers of products containing mercury must provide a Canadian address in the report they have to submit pursuant to section 12 of the regulations.

3.7.2 To add the requirement of reporting the quantity of products exported

The reporting requirements currently require manufacturers and importers to report every three years to ECCC and to provide information on the quantity of products they import and manufacture. However, the requirements do not include providing information on the quantity of products exported. Information on exportations would help ECCC to have a better understanding of the quantity of mercury that remains in Canada. As such, ECCC also welcomes comments on the possibility of adding the requirement, for importers and manufacturers of mercury-containing products, of reporting the quantity of products exported.

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<sup>15</sup> "State Mercury Added Labeling Guidelines". NEWMOA: <http://www.newmoa.org/prevention/mercury/imerc/labelinginfo.cfm> (accessed in January 2018).

### **3.8 Amendments to the record keeping requirements (sections 14 to 16 of the regulations)**

The purpose of the record-keeping requirements is for those subject to the regulations to demonstrate their compliance. To address comments submitted by stakeholders and facilitate the enforcement of the regulations, the following amendments are proposed:

#### **3.8.1 To add the requirement to maintain records on the quantity of products exported**

The proposed amendment outlined in subsection 3.7.2 should also be reflected in the record keeping requirements in order to facilitate its enforcement. Consequently, ECCC is proposing to require that manufacturers and importers also maintain records of the quantity of products exported.

#### **3.8.2 To adjust the record keeping requirements to accommodate changing technology**

Currently, the regulations require manufacturers and importers of products containing mercury to keep physical records in Canada. ECCC is proposing to adjust the language of the record keeping requirements related to the “place of retention” of records to accommodate changing technology and allow records to be kept electronically.

### **3.9 Adjustments to clarify certain exemptions in the schedule of the regulations**

#### **3.9.1 To clarify the scope of item 19 of the schedule – Laboratory analytical standard or reference material**

To address questions raised by stakeholders, ECCC is proposing to better define item 19 of the schedule and to clarify that its scope is broader than what it reads. This item is also intended to allow for the use of reagents in laboratory settings, such as the analysis of chemical oxygen demand. ECCC welcomes suggestions of wording that would cover all products manufactured or imported for these uses, in order to clarify the scope of this item in the schedule of the regulations.

#### **3.9.2 To clarify item 34 of the schedule – Replacement parts**

To address questions raised by stakeholders, ECCC is proposing to clarify that item 34 applies to the mercury-containing component that has to be replaced, and not to the whole product. Furthermore, ECCC is proposing to clarify that item 34 does not apply if the product containing mercury is listed in the schedule of the regulations.

Please refer to Annex 1 for a summary of the proposed amendments.

## **4 One-for-One Rule and Small Business Lens**

As part of its Red Tape Reduction Action Plan, the Government of Canada has introduced the One-for-One Rule and the Small Business Lens, to ensure that the administrative burden<sup>16</sup> on business is reduced where possible and that small businesses<sup>17</sup> are taken into account with respect to any foreseeable administrative and compliance challenges.

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<sup>16</sup> Administrative burden is defined as anything that is necessary to demonstrate compliance with a regulation, including the collecting, processing, reporting, and retaining of information, and completing of forms.

<sup>17</sup> A small business is defined as any business, including its affiliates, that has fewer than 100 employees or has between \$30,000 and \$5 million in annual gross revenues.

The One-for-One Rule is aimed at reducing the administrative burden on business and at limiting the growth in the number of federal regulations. The One-for-One rule requires the calculation of administrative burden on business in new regulations and in regulatory amendments. Any increases in administrative burden must be offset (by an equivalent reduction in administrative burden) from the existing stock of federal regulations. The rule further requires departments to consult affected businesses on the estimated administrative burden prior to seeking approval to publish draft regulations.

The purpose of the Small Business Lens is to ensure that the specific needs of small business are considered and that the least burdensome but most effective approach to addressing these needs is identified. This will be achieved through the analysis of small business realities and consultation at the earliest stages of regulatory design. Consideration will be given to approaches that minimize costs for small business.

Although the proposed amendments are not expected to create an additional administrative burden or impact on small businesses, ECCC will undertake a detailed cost and benefit analysis based on information and feedback received from stakeholders and, if needed, will engage in consultations with affected businesses prior to finalizing the proposed regulatory measures.

## **5 Submission of comments for the proposed amendments to the Products Containing Mercury Regulations**

In soliciting input from stakeholders, ECCC has posted a copy of this document on the Department's Environmental Registry and is available at:

<https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/products-mercury-regulations-proposed-amendments.html>

ECCC has also distributed it by email or mail to Canadian stakeholders, including representatives from other federal departments, provinces, territories, Indigenous groups and organizations, industry, environmental groups and public advocacy groups.

In addition to comments on the proposed regulatory amendments, as described above and outlined in Annex 1 below, ECCC is looking for information on exempted products listed in the schedule of the regulations, including information on:

- changes in mercury content of products listed in the schedule of the regulations due to newer technologies, industry standards, etc
- mercury-free alternatives to products listed in the schedule of the regulations
- other product categories listed in the schedule that have been, are being or could be phased-out (including expected timeline, if applicable). For example, a preliminary analysis conducted by ECCC seems to suggest that 16 product categories might be rarely used in Canada, not available on the Canadian market anymore or might soon become unavailable. ECCC will investigate these categories further in order to determine whether they could be removed from the schedule of the regulations and, as a result, welcomes any information on product categories listed in the schedule, such as (but not limited to):
  - Item 5 - Induction fluorescent lamp for general lighting purposes
  - Item 7 - High pressure sodium vapour lamp for general lighting purposes
  - Item 8 - Metal halide lamp for general lighting purposes

- Item 10 - Cold cathode fluorescent lamp
- Item 11 - External electrode fluorescent lamp
- Item 12 - Cold cathode tubing for signage or cove lighting
- Item 13 - Electrode for use in cold cathode tubing for signage or cove lighting
- Item 15 - Very high accuracy capacitance and loss measurement bridges and high frequency RF switches and relays in monitoring and control instruments
- Item 22 - Radiation light detector
- Item 23 - Infrared light detector
- Item 24 - Low mercury chloride reference electrode
- Item 25 - Low mercury sulphate reference electrode
- Item 26 - Low mercury oxide reference electrode
- Item 27 - Professional, commercial and industrial photographic film
- Item 28 - Professional, commercial and industrial photographic paper
- Item 29 - Composite resins and adhesive resins used in the aerospace industry.

ECCC invites stakeholders to provide comments on the proposed amendments to the Products Containing Mercury Regulations by **April 2<sup>nd</sup>, 2018**, either via mail, email or fax, to the following addresses:

<b>Mail</b>	<b>Products Division</b> Environment and Climate Change Canada 351 Saint-Joseph Boulevard, 9 <sup>th</sup> Floor Gatineau, QC K1A 0H3 Phone number: 819-938-4483 / 1-888-391-3426 (information)
<b>Email</b>	<b>to:</b> <a href="mailto:ec.produits-products.ec@canada.ca">ec.produits-products.ec@canada.ca</a> Please type " <b>Consultation - Mercury products</b> " in the subject line.
<b>Fax</b>	819-938-4480 / 1-888-391-3695

## 6 Path forward

ECCC will review and take into consideration all comments received in response to this consultation on the proposed amendments to the Products Containing Mercury Regulations. In addition, the results from the 2017 reporting period under the regulations will also be analyzed to help inform ECCC's proposed amendments. The first preliminary results are detailed in Annex 2.

It is expected that the proposed regulations will be published in Part I of the Canada Gazette for a 75-day public comment period, in the fall of 2018.

ECCC may also engage in bilateral discussions with stakeholders as part of this consultation process.

## 7 National Strategy for Safe and Environmentally Sound Disposal of Lamps Containing Mercury Act

In addition to the proposed amendments to the Products Containing Mercury Regulations, the Government of Canada is also taking action on end-of-life management of lamps containing mercury. In June 2017, the National Strategy for Safe and Environmentally Sound Disposal of Lamps Containing Mercury Act was enacted, and requires the Minister of Environment and Climate Change to develop a national strategy for end-of-life management of lamps containing mercury. This work is being led by ECCC in cooperation with provinces,

territories, and municipalities, and in consultation with Indigenous Peoples, environmental groups, and industry, and will build on efforts by other jurisdictions and industry that are already underway. The national strategy must be developed by June 2019, and progress on its implementation reported every 5 years thereafter.

A separate and more in-depth consultation on the potential elements and goals of a national strategy is currently being conducted. However, ECCC is interested in hearing views from interested stakeholders who have not been engaged in consultations to date on options for improving the recovery and environmentally sound end-of-life management of all lamps containing mercury.

Stakeholders are invited to provide this early input by **March 1<sup>st</sup>, 2018**.

<b>Mail</b>	<b>Mercury Unit</b> Waste Reduction and Management Division Environment and Climate Change Canada 351 Saint-Joseph Boulevard, 9 <sup>th</sup> Floor Gatineau, QC K1A 0H3 Phone number: 819-938-5161 or 1-888-524-5289 (information)
<b>Email</b>	<b>to:</b> <a href="mailto:ec.dechetsdemercure-mercurywastes.ec@canada.ca">ec.dechetsdemercure-mercurywastes.ec@canada.ca</a> Please type <b>“Input on National Strategy for disposal of lamps containing mercury”</b> in the subject line.
<b>Fax</b>	819-938-4553 or 1-888-391-3695

## Annex 1: List of proposed amendments to the Products Containing Mercury Regulations

Item	Proposed Amendments	Rationale
<b>Alignment with the Minamata Convention</b>		
1	<p><b>Item 3 of the schedule - Straight fluorescent lamp for general lighting purposes</b></p> <p>To lower the mercury content limit of item 3(f) of the schedule (T12, 8-foot, instant start, single pin base) from 15 mg to 10 mg per lamp.</p> <p>Conduct consultation to verify compliance and evaluate the possibility to lower the mercury content limit of item 3(e) of the schedule (T12, 4-foot or less, rapid start, medium bi-pin base).</p>	<p>To comply with requirements for halophosphate phosphor LFLs under the Minamata Convention.</p> <p>The convention lists 2 types of straight fluorescent lamps each with different content limit requirements: <math>\leq 5</math> mg for triband phosphor <math>&lt; 60</math> watts, and <math>\leq 10</math> mg for halophosphate phosphor <math>\leq 40</math> watts.</p> <p>The regulations do not make such distinction, and have a different nomenclature and mercury content requirements. Items 3(a) to 3(d) of the schedule of the regulations already meet the requirements for triband phosphor and halophosphate phosphor LFLs under the convention.</p>
2	<p><b>Item 10 of the schedule – Cold cathode fluorescent lamp (CCFL)</b></p> <p>To lower the mercury content limit of item 10(a) from 10 mg to 3.5 mg per lamp.</p>	<p>To comply with requirements for short and medium length CCFLs for electronic displays under the Minamata Convention.</p> <p>The convention specifies three lengths of CCFLs: short (<math>\leq 0.5</math> m), medium (<math>&gt; 0.5</math> m and <math>\leq 1.5</math> m) and long (<math>&gt; 1.5</math> m), and a different content limit for each length. The regulations only specify two lengths for these lamps: 1.5 m or less and more than 1.5 m.</p>
3	<p><b>Item 11 of the schedule – External electrode fluorescent lamp (EEFL)</b></p> <p>To lower the mercury content limit of item 11(a) from 5 mg to 3.5 mg per lamp.</p>	<p>To comply with requirements for short and medium length EEFLs for electronic displays under the Minamata Convention.</p> <p>The convention specifies three lengths of EEFLs: short (<math>\leq 0.5</math> m), medium (<math>&gt; 0.5</math> m and <math>\leq 1.5</math> m) and long (<math>&gt; 1.5</math> m), and a different content limit for each length. The regulations only specify two lengths for these lamps: 1.5 m or less and more than 1.5 m.</p>
4	<p><b>Item 30 of the schedule – Catalyst used in the manufacturing of polyurethane</b></p> <p>To remove the exemption from the schedule, or to add an end date to the exemption for catalysts.</p>	<p>The Minamata Convention calls for “measures to reduce the use of mercury aiming at phasing out as fast as possible, within 10 years of the entry into force of the convention” catalysts used in the manufacturing of polyurethane.</p> <p>Currently, the regulations exempt these catalysts with no end date to the exemption.</p>

Item	Proposed Amendments	Rationale
<b>Other Proposed Amendments</b>		
5	<p><b>Section 2 of the regulations – Non-application: Pest control products</b></p> <p>To clarify that mercury-containing lamps that are used for pest control purposes, are not excluded from the application of the regulations as per paragraph 2(f) of the regulations.</p>	<p>UV disinfection lamps for pest control products could be excluded from the application of the regulations, under section 2 of the regulations, as part of a pest control product covered under the Pest Control Products Act when the intent was to exempt them as per item 14 of the schedule of the regulations.</p>
6	<p><b>Section 2 of the regulations – Non-application: Personal use</b></p> <p>To add a personal use exclusion to allow the entry in Canada of mercury-containing products used or intended to be used for a personal use.</p>	<p>To be consistent with other product-related regulations (e.g. Prohibition of Certain Toxic Substances Regulations).</p>
7	<p><b>Section 8 of the regulations – Labelling requirements</b></p> <p>To clarify that information provided in a website to comply with paragraphs 8(1)(b) and 8(1)(c) is required in both official languages.</p>	<p>The intent of the regulations is to have information on the label available in both official languages.</p>
8	<p><b>Section 8 of the regulations – Labelling requirement</b></p> <p>To add a requirement to identify on the label the component (incorporated into a larger product) that contains mercury.</p>	<p>Would be aligned with current label practices under US IMERC.</p>
9	<p><b>Section 9 of the regulations – Labelling requirements</b></p> <p>To evaluate the relevance of the Hg symbol labelling requirements for certain items of the Schedule.</p>	<p>ECCC will evaluate the particularities associated with the import and manufacture of some commercial and industrial products containing mercury (e.g. items 12 or 13 of the schedule of the regulations) in order to determine if the Hg symbol requirement fulfills its intended objective.</p>
10	<p><b>Section 10 of the regulations – Testing requirements</b></p> <p>To broaden the accreditation bodies recognized under the regulations (currently limited to Canadian accredited bodies) to signatories to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.</p>	<p>Comments on the current regulatory provisions for testing requirements have been raised.</p> <p>This amendment is intended to align with the other ECCC regulations</p>
11	<p><b>Section 12 of the regulations – Reporting requirements</b></p> <p>To add the requirement that reporters must provide a Canadian address in their report.</p>	<p>To facilitate the enforcement of the regulations.</p>

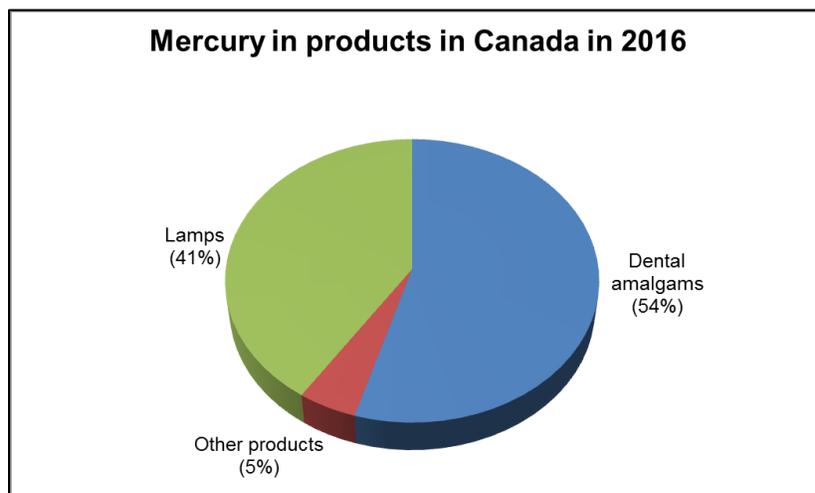
Item	Proposed Amendments	Rationale
12	<p><b>Section 12 of the regulations – Reporting requirements</b></p> <p>To add the requirement of reporting the quantity of exported products.</p>	<p>This would help ECCC to have a better understanding of the quantity of mercury that remains in Canada.</p>
13	<p><b>Section 14 of the regulations – Record keeping requirements</b></p> <p>To add the requirement to maintain records on the quantity of products exported.</p>	<p>To facilitate the enforcement of the regulations.</p>
14	<p><b>Section 16 of the regulations – Record keeping requirements</b></p> <p>To adjust language related to the “place of retention” of records to accommodate changing technology.</p>	<p>Comments raised by stakeholders during the consultation for the VOC in Certain Products Regulations.</p> <p>Current legal text requires manufacturers or importers of mercury-containing products to keep physical records in Canada.</p>
15	<p><b>Item 2 of the schedule – Compact fluorescent lamp (CFL) for general lighting purposes</b></p> <p>To lower the mercury content limits for CFLs for general lighting purposes to:</p> <ul style="list-style-type: none"> <li>• 2.5 mg per lamp for item 2(a) of the schedule and</li> <li>• 3.5 mg per lamp for item 2(b) of the schedule.</li> </ul> <p>To introduce an end date of 2023 to the CFLs exemption.</p>	<p>ECCC intends to further align with content limit requirements for CFLs in other jurisdictions, such as in the European Union and certain states in the United States. ECCC is also considering adding 2023 as an end date for the CFLs exemption.</p> <p>These amendments will increase the environmental benefits of the regulations by further reducing mercury content limits in CFLs that are imported into Canada.</p>
16	<p><b>Item 9 of the schedule – Automobile headlamp</b></p> <p>To remove the exemption from the schedule or to add 2023 as an end date to the exemption.</p>	<p>Use of mercury-containing automobile headlamps is now very limited to certain models of automobiles and are likely to be completely phased-out in the near future.</p>
17	<p><b>Item 19 of the schedule – Laboratory analytical standard or reference material</b></p> <p>To clarify the scope of this exemption.</p>	<p>Item 19 is broader than “Laboratory analytical standard or reference material”. It is also intended to allow for the use of reagents in laboratory settings.</p>
18	<p><b>Item 34 of the schedule – Replacement part</b></p> <p>To clarify that the exemption:</p> <ul style="list-style-type: none"> <li>• applies to the mercury-containing component that has to be replaced, and not the whole product and</li> <li>• does not apply if the product is listed on the schedule of the regulations.</li> </ul>	<p>Received questions from stakeholders on this matter.</p>

## Annex 2: Reporting period under the Products Containing Mercury Regulations – Summary of preliminary results<sup>18</sup>

Under the Products Containing Mercury Regulations, manufacturers and importers of products containing mercury that are exempted (i.e. listed in the schedule of the regulations) or allowed through permits (i.e. “permitted”) are required to report to Environment and Climate Change Canada (ECCC) every three years. A first report was to be submitted by March 31, 2017, on data from the calendar year 2016.

The objective of the reporting requirements is to use the data collected to monitor the trend in reduction of mercury in Canada. ECCC also sees an opportunity to use that information to identify potential area(s) for improvement under the regulations.

As of September 13, 2017, ECCC had received 123 reports. A preliminary<sup>19</sup> analysis of the data collected indicates that a total of 66 202 320 units of permitted and exempted products were imported and manufactured in Canada in 2016. These products contained a total of 1.04 metric tons of mercury. Dental amalgams (item 1 of the schedule of the regulations) and lamps (items 2 to 14 of the schedule of the regulations) accounted together for approximately 95% of the total quantity of mercury contained in products in 2016. More specifically, dental amalgams represented approximately 54% of the total, while lamps represented approximately 41% (see Figure 1 below for overview; and Table 1 for more information on exempted products).



**Figure 1: Mercury in permitted and exempted products in Canada in 2016 (in % of total quantity of mercury reported)**

It was also noted that a vast majority of the data submitted was from organizations importing mercury-containing products into Canada: out of the 123 organizations that submitted a report, less than 10 organizations reported manufacturing products containing mercury in Canada.

<sup>18</sup> The results presented in this annex stem from a preliminary analysis conducted in September 2017 and are subject to change.

<sup>19</sup> ECCC is still working on the analysis of the reports and verifying the accuracy of the information received.

Furthermore, the preliminary analysis revealed that no import or manufacture was reported for 2016 for the following eight (8) product categories listed in the schedule of the regulations:

- Item 5 – Induction fluorescent lamp for general lighting purposes
- Item 10(b) – Cold cathode fluorescent lamp of more than 1.5 m in length
- Item 11(b) – External electrode fluorescent lamp of more than 1.5 m in length
- Item 13 – Electrode for use in cold cathode tubing for signage or cove lighting
- Item 15 – Very high accuracy capacitance and loss measurement bridges and high frequency RF switches and relays in monitoring and control instruments
- Item 20 – Scientific instrument used as reference for clinical validation studies
- Item 22 – Radiation light detector
- Item 32 – Medical device that is intended to remain in the body for at least 30 consecutive days.

These results seem to suggest that these product categories might not be needed on the Canadian market anymore or might soon become unavailable. ECCC might therefore consider investigating these categories further in order to determine whether these product categories could be removed from the schedule of the regulations.

Data on the exempted products reported were also compiled and analyzed to inform the proposed amendments to the regulations. To increase transparency and to facilitate access to information, Table 1 below summarizes the preliminary results that were compiled for exempted products that were imported and manufactured in 2016. It should be noted that this data is subject to change, and that due to confidential business information (CBI) concerns, it was decided that some information will not be disclosed<sup>20</sup>.

**Table 1: Summary of preliminary results for exempted products imported and manufactured in Canada in 2016 based on reports received under the Products Containing Mercury Regulations<sup>21</sup>**

Type of mercury-containing product	Item number(s) from the schedule of the regulations	Number of companies that reported this type of product	Total quantity of mercury in all products reported (in kg)
Dental amalgams	1	4	567.67
Lamps	2 to 14	110	423.12
Measuring instruments and reference material	16 to 26	14	12.37
Other	15, 27 to 33 (except 31)	6	36.76
TOTAL	1 to 33 (except 31)	123 <sup>22</sup>	1039.92

<sup>20</sup> Some information submitted in the reports was considered CBI by the submitters. As a result, CBI was masked prior to publication. Masking refers to the process whereby the information is used in such a manner so that CBI is not revealed. This can be done by, for example, aggregating data or by providing quantity ranges. For instances when masking could not adequately provide protection, CBI data elements were removed from the final version. Sensitive information, such as names of submitters, name of organization, or any information that could identify a submitter was also not included.

<sup>21</sup> Results current as of September 13, 2017

<sup>22</sup> As some organizations have reported importing or manufacturing products containing mercury from multiple product categories, the total number of reports (i.e. 123) does not correspond to the sum of the number of companies that reported in each category.