Australian Government

Department of the Environment and Energy

Submission Coversheet

National Phase down of Mercury: Ratification of the Minamata Convention on Mercury

Overview

This submission template should be used to provide comments on the Exposure Draft Final Regulation Impact Statement on the Ratification of the Minamata Convention of Mercury. Additional information/documents may be provided if you wish.

Contact Details

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Confidentiality

All submissions will be treated as public documents, unless the author of the submission has requested that the submission not be published on the grounds that its publication could reasonably be expected to substantially prejudice the commercial interests of the author or another person. Public submissions will be published in full on the Department of the Environment's website, including any personal information of authors and/or other third parties contained in the submission. Confidential submissions will not be published.

If any part of the submission should be treated as confidential then please provide two versions of the submission, one with the confidential information removed for publication.

A request made under the *Freedom of Information Act 1982* for access to a submission marked confidential will be determined in accordance with that Act.

Do you want this submission to be treated as confidential? ☐ **Yes** ☒ **No**

Submission Instructions

Submissions should be made by **close of business** on Friday 17 March 2017. The Department reserves the right not to consider late submissions.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text based formats, via the email address – minamata@environment.gov.au

Submissions may alternatively be sent to the postal address below to arrive by the due date.

Chemicals Management and Standards Section
Environment Standards Division
Department of the Environment and Energy
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General/overall comments

Before providing comment on this Regulation Impact Statement (RIS), the Australian Dental Association (ADA) would like to remind the Australian Government that dental amalgam is an alloy in which mercury is alloyed with other metals (including copper, silver and tin), resulting in a negligible amount of free mercury. Numerous scientific studies have shown that dental amalgam is a safe and effective dental filling material. While there are other restorative dental materials available to clinicians, dentists in consultation with their patients must be able to choose the most clinically appropriate material for a procedure. It was for reasons including this that in the Minamata Convention on Mercury (the Convention) dental amalgam was only to be phased down. Regulating to ban the availability of dental amalgam to clinicians would therefore jeopardize appropriate patient care. Similarly, it is important to note that not all dental clinics produce dental amalgam waste; only those clinics where amalgam restorations are placed, finished, polished, or removed have the need to adopt amalgam waste management protocols.

While the ADA supports the ratification of the Convention and the adoption of measures to reduce mercury pollution from Australian sources, the Australian Government must put into perspective dental amalgam's contribution towards mercury pollution. The RIS itself notes that globally the greatest anthropogenic sources of mercury emissions and releases, greater than dental amalgam, are:

- coal burning;
- mining;
- smelting and the production of iron and non-ferrous metals;
- cement production;
- oil refining;
- artisanal and small scale gold mining; and
- wastes from consumer products.

Australia's share of mercury pollution attributed to dental amalgam waste in 2014-15 was approximately 1.3 tonnes out of 17.8 tonnes for that year, i.e. 7% of total output. The ADA notes the Final Report on the cost and benefits of Australia phasing-down mercury states that use of the fungicide Shirtan in Australia is stated as releasing 5.285 tonnes of elemental mercury into the atmosphere. Shirtan's active ingredient, presented as methoxyethyl mercuric chloride, is far more volatile than as a compounded dental amalgam which presents as a metal solid. Also, from a worldwide perspective (Jones, 2009), dentistry is estimated to account for 0.1% of mercury pollution (33.4 tonnes), of which 54% is from crematoria.

With that in mind, the RIS has reported on the ADA's previous submissions about how Australia is already compliant with the Minamata Convention, applying measures to phase down dental amalgam as outlined by Annex A, Part II of the Convention (page 35). The ADA and the dental profession have taken measures to reduce mercury pollution far beyond the two-minimum measures required under the Convention, to reduce mercury pollution; the RIS reporting our view that the vast majority of the nine measures are already met or are well on the way to being implemented.

The ADA makes the following comments regarding the nine measures:

For many years, the ADA has been actively involved in promotions and programmes aimed to reduce dental disease and use the filling materials necessary to support this endeavour.

The ADA can confirm that the dental profession has experienced a considerable and consistent natural patient trend away from choosing dental amalgam in fillings. This is supported by university dental school curricula in restorative dentistry and in continuing professional development programmes which outline the options dental practitioners could offer patients to use non-amalgam restorative materials. Also, amalgam is only available in Australia in encapsulated form.

The ADA's view is that while this phase down is occurring, the use of amalgam should remain available where clinically appropriate. There is no dental material perfect for all situations. Amalgam has its place

being cost efficient; maintaining strength and longevity in certain areas which often outweigh any perceived risk to the environment. Additionally, dentists' professional ethics and obligations require them to offer patients all the clinically appropriate and available options that are in their best interest to patients. Modern amalgam alloys contain far less free mercury content than older ones and alternatives to amalgam continue to develop.

Continuing to utilise amalgam as an option for patients, where clinically appropriate, as well as taking measures to reduce the mercury impact associated with its use or removal, is consistent with the 'phase down' objectives of the Convention. This applies to the scenario where a patient with amalgam fillings needs to have them removed. The Convention provides the dental profession with an opportunity to use existing technologies, namely amalgam separators and recycling systems, to capture dental amalgam in a way that is environmentally friendly and best reduces mercury pollution.

In Australia, the ADA and other stakeholders agree that it is not appropriate for any insurer to have policies or programmes that influence clinical decisions or materials used. These measures should not be introduced in Australia.

It is recommended the Australian Government consider the attached ADA Policy Statements *6.11 – Dental Amalgam Waste Management (including Guidelines for Amalgam Waste Management)* and *6.18 Safety of Dental Amalgam*. These Policy Statements outline how amalgam, when used as clinically appropriate, is done in a manner where the mercury and waste amalgam discharge is minimised.

From this perspective, the ADA supports further actions be taken as part of the Australian Government's ratification of the Convention beyond ratification alone (Option 2). To that end, while the ADA supports Option 3, it is also supportive of Option 4 as the latter includes an accelerated phase down of mercury in pesticides and represents the highest Net Present Value to benefit the community and environment.

The Australian Government should consider a similar programme for crematoriums to introduce filters on smoke stacks. Filters are available to capture over 90% of mercury released. Mercury vapour released this way is more easily absorbed in waterways and oceans than the mercury bound in amalgam waste.

Specific comments – please insert your specific comments below, listed against the part of the Exposure Draft Final Regulation Impact Statement to which they apply

RIS reference:	Comments
5.4 Option 4 – ratification of Minamata convention and Enhanced National Phase down (page 54)	The ADA supports this Option although makes the following observations. Care must be taken in terms of the communications campaign. It is highly advised that the Australian Government, including the states and territories, work closely with the ADA to ensure the take up of this voluntary option is made as easy as possible. While the RIS states in its cost estimates that the approximate $900 per unit and $500 annual waste collection and recycling cost will be borne by dental practices, it is the ADA's understanding that the current cost of purchasing and installing amalgam separators and traps can range from about $2000 for a battery-style unit, to over $7000 in which separation is one element of a multifunction suction device. Annual maintenance and waste collection contracts start at around $250. Considering the cost to business as well as the overall environment, the ADA urges the Australian Government to consider a subsidy which would more directly encourage the voluntary take up of amalgam separators and subsequent collection and recycling of amalgam waste. The Dentists for Cleaner Water Scheme implemented in Victoria is an example where the ADA Victorian Branch worked with the state Water Industry and Environmental Protection Authority to promote the installation and use of dental amalgam separators in private dental practices. The Victorian Government offered a rebate for private sector dentists to purchase and

	install amalgam separators and to enter into a dental amalgam waste collection agreement. This project resulted in over 700 separators installed in practices throughout Victoria alone, resulting in an annual reduction of approximately 95% of dental amalgam waste into the water system. A national rebate scheme would similarly help increase voluntary take up of amalgam separators. Such a national campaign could also refer to the financial benefits of voluntary purchase and installation amalgam separators, namely claiming the purchase and installation costs through the small business instant asset tax write-off. Although many waste collection businesses can collect amalgam waste from dental practices, it is the ADA's understanding that currently only one business is EPA-licensed to recycle amalgam waste – CMA Ecocycle. Government awareness campaigns aimed at dental practices should make this clear. It is important that businesses collecting amalgam waste from dental practices be required to transfer the waste to a licensed amalgam recycling specialist, and make their clients aware of this. The ADA understands that it can be very difficult to determine whether a business has an EPA licence to recycle mercury. The Australian Government should therefore develop a streamlined process to allow the public to easily check this in each state and territory if businesses have an EPA licence. It is not clear whether state and territory regulations require EPA-licenced mercury recyclers are required to provide their clients with evidence of a current licence.