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**REGULATIONS IMPLEMENTING THE
MASSACHUSETTS MERCURY MANAGEMENT ACT
(Chapter 190 of the Acts of 2006)**

PHASE 2:

- **MERCURY PRODUCT SALES BAN AND EXEMPTION PROCESS**
- **LABELING OF MERCURY PRODUCTS**
- **DISPOSAL PROHIBITION**

**RESPONSE TO COMMENTS RECEIVED DURING
THE PUBLIC COMMENT PERIOD**

MAY 6, 2009



List of Commenters

1. Jim Field, University of Massachusetts Amherst
2. Lorenzo Macaluso, Center for Ecological Technology
3. Robert Rio, Associated Industries of Massachusetts
4. John McNabb, Clean Water Action
5. Brian Rippon, End-of-Life Vehicle Solutions
6. Michael Hornbrook, Massachusetts Water Resources Authority
7. Jeanne Schmeichel, Schnitzer Steel Industries
8. Melissa J. Lawler, The Soap and Detergent Association

Comments and MassDEP’s Responses

1. Labeling of hazardous waste

Comment: The exemptions from the labeling requirement do not specifically exempt those materials that are labeled and managed as hazardous waste. The requirement simply states that hazardous waste and universal waste will continue being managed under appropriate regulations. If we have containers labeled as hazardous for mercury do we have to add an additional label as described in this regulation?

Commenter: 1

Response: The labeling regulations in 310 CMR 75.08 only apply to new manufactured products and do not change the labeling requirements for hazardous waste in 310 CMR 30.000.

2. Exemptions for mercury use in research

Comment: Foot note 3, page 10 indicates exemptions for coal ash, semi-conductors, and dental amalgam. Should this include an exemption for research environments such as nano-tech or other research areas that might use mercury in an environment that is under the control of a competent person and will not be offered for sale or transferred to any other entity?

I think the exemption process is too tough to deal with in the research environment. We never know what a researcher might find as a beneficial need for any product. I know we have some mercury pumps that are used to measure the inter and intra cellular space of plant cells. They can measure cell wall thickness and elasticity. Some new techniques are available that help provide the same information but depending on what the researcher wants to see this may be the only mechanism. The issue with research is we don't know what benefit might be derived from the use of a compound and creating barriers to its use can limit or even prohibit this effort. OSHA has defined what they term a "Competent Person". EPA under the new lab rule and DHS under the chemical vulnerability have used this definition to provide some flexibility under their regulations. Chemicals under the control of a "Competent Person" do not fall under these regulatory requirements. I think this phrase might have some value here.

Commenter: 1

Response: The Mercury Management Act and its corresponding regulations do not restrict the use of elemental mercury or mercury compounds in a laboratory or for research. The statute specifically exempts *mercury-added formulated products* from its requirements. These are defined as a “chemical product to which mercury has been added, intentionally or unintentionally, including, but not limited to, laboratory chemicals...” If a scientific research project must use a mercury-containing device that has been banned from sale, the researcher may apply to MassDEP for an exemption from the sales ban for a specific purpose.

The statute’s ban on the sale or distribution applies only to a list of specific mercury-added products, and allows MassDEP to grant exemptions from the ban for specific applications. The

application for an exemption will ask the applicant to make a case for why the non-mercury alternative is insufficient. Under appropriate circumstances, an exemption to the sales ban will be granted. The Mercury Management Act does not give MassDEP the authority to use the “Competent Person” concept that has been used by OSHA and other regulatory agencies.

3. Purchase and use of thermometers in research

Comment: Page 21 "The ban on sale or distribution shall not apply to thermometers if determined to be medically necessary by a licensed physician or ordered by prescription." I have an inventory of specific and unique precision thermometers with special characteristics that may be the only suitable process for managing precise temperatures. Shouldn't the researcher be allowed to purchase specialty mercury thermometers when needed?

Commenter: 1

Response: The Massachusetts Mercury Management Act does not ban the sale of thermometers used in scientific, commercial and industrial applications. The sales ban only applies to fever and basal thermometers. Manufacturers of other types of thermometers can continue to sell and distribute them to Massachusetts purchasers, but will need to label them so the purchasers/users will know that the thermometers contain mercury and that they need to be recycled at the end of their useful life.

4. Solid waste collectors' responsibilities

Comment: The language in 76.04 states that “A solid waste collector shall refuse to collect the contents of a solid waste container that the solid waste collector knows or reasonably should know contains one or more mercury-added products...” Haulers are apprehensive to do anything but provide effective service to the client. The industry is so competitive that there is a real fear of losing customers if they take any action on issues like this. Ideally, DEP should dedicate the staff and resources to enforce these rules directly.

Commenter: 2

Response: MassDEP is developing an enforcement strategy for all components of the Mercury Management Act and will not rely solely on solid waste collectors to enforce the law. However, the Act is clear with regard to the responsibilities of solid waste collectors, stating “A solid waste collector shall refuse to collect the contents of a solid waste container that the solid waste collector knows or reasonably should know contains one or more mercury-added products...” and MassDEP plans to work collaboratively with them to help them prevent mercury-added products from entering the waste stream.

5. Amend the definition of a “mercury added product” to exempt mercury vapor monitoring equipment

Comment: Electric generating facilities in Massachusetts are required to comply with the mercury provisions of 310 CMR 7.29. Therefore, mercury continuous emissions monitors, mercury sorbent traps, and their ancillary equipment, consumables and calibration gases are essential in Massachusetts in order for these facilities to remain in compliance. Since the

facilities that are required to use mercury CEMs and sorbent traps are limited to three facilities in the Commonwealth, it does not make sense to require the manufacturers to apply to the Department for an exemption from the prohibition on sale or distribution and to further be potentially subject to additional conditions by the Department. Since the facilities subject to the mercury emission restrictions of DEP’s rules are very few and are environmentally sophisticated in handling hazardous materials, the amendments suggested here will have no effect on the Act’s goals to limit public exposure to mercury containing products.

It is in the Commonwealth’s best interest to ensure that as few barriers as possible exist regarding the beneficial use of wet or dry scrubber by-product material. The alternative to beneficial use of this by-product material is land filling, which contravenes the Commonwealth’s goals for minimizing land fill use.

The Department should amend the definition of “mercury added product” to explicitly exempt wet or dry scrubber by-product material and mercury continuous emissions monitors (CEMs), mercury sorbent traps, and their ancillary equipment, consumables and calibration gases.

Commenter: 3

Response: Air pollution monitoring equipment and associated consumables (such as calibration gas) that contain mercury are not banned from sale in Massachusetts under the Mercury Management Act. However, manufacturers of devices that are classified under the statute as “mercury added products” must properly label them. When the equipment reaches the end of its useful life, the mercury it contains must be recycled before the equipment can be disposed of. MassDEP does not expect that the labeling requirement and requirement for proper end-of-life management will pose an undue burden on the power plants that use this monitoring equipment.

Scrubber by-product material that is contaminated with mercury does not meet the definition of a “mercury-added product” because the mercury is not intentionally added. Therefore, there would be no labeling requirement for the sale of the scrubber by-product material.

6. Labeling visibility and foreign language requirement

Comment: Detailed requirements should be established in the regulations about the visibility of the label to prospective purchasers. Language should be in English, Chinese, and Spanish. Labels should be on both the packaging and the product, as well as on a product component that contains mercury. Images should be used.

Commenter: 4

Response: The labeling regulation (310 CMR 75.08) establishes performance standards to achieve the goals for product labeling of the Mercury Management Act, while providing manufacturers with enough flexibility to allow compliance for a very wide range of products and components. 310 CMR 75.08(3)(c) specifically states that the labels shall be placed on products so they can be seen by prospective purchasers and specifies when the label must be on both the product and packaging. Some mercury-added products are so small that printing any words at all on them is difficult and requiring labeling in multiple languages would be even more difficult. Manufacturers who provide operating or care and use manuals in multiple languages already

provide mercury component handling information in those languages. As part of MassDEP's mercury education efforts, MassDEP will be producing and distributing information on the management of mercury products in some of the most commonly spoken foreign languages.

7. Add “mercury-added products” to waste ban list

Comment: In addition to the new regulation 310 CMR 76.000, this disposal prohibition should be implemented by adding “mercury-added products” to the Waste Bans, 310 CMR 19.017, requiring the amendment of Facility Operation & Maintenance Plans to include how the Facility will implement the ban, and similar enforcement for this waste ban as for others – but with added guidance on reducing breakage of lamps and identification of other mercury-containing products such as thermostats.

Commenter: 4

Response: MassDEP discussed the option of adding mercury-added products to the list of waste ban items in 310 CMR 19.017 with a working group of the Solid Waste Advisory Committee that included a number of facility operators and municipal recycling staff. After considering pros and cons, the agency decided to establish the mercury disposal prohibition in a separate regulation (310 CMR 76.00), because implementation of a Waste Ban by facilities would not generally be practical given the small size and fragile nature of many of the covered products. MassDEP has issued guidance to solid waste facilities that establish management standards and protocols when mercury containing products are found at a solid waste facility. These management standards and protocols will be incorporated into a facility’s operating permit under 310 CMR 19.130 Operation and Maintenance Requirements as these permits come up for renewal.

8. Publish applications for exemptions from sales ban in the Massachusetts Environmental Monitor

Comment: In addition to being placed in a legal notice in a newspaper, applications for exemptions from the sales ban and the decision on the application should also be published in the Environmental Monitor.

Commenter: 4

Response: MassDEP added a requirement to the final version of 310 CMR 75.07(5) to publish a notice in the Environmental Monitor.

9. Require mercury-added product manufacturers to continue collection plans until all end-of-life products have been disposed

Comment: Amend 310 CMR 75.03 to add the word “discarded” so it will now read: “(3) After December 28, 2007, once a mercury-added product is no longer sold, offered for sale, discarded, or distributed in Massachusetts, the product’s manufacturer will no longer be subject to the requirements of 310 CMR 75.04.”

Commenter: 4

Response: The regulations governing manufacturers’ plans for collecting and recycling their end-of-life products (310 CMR 75.00), were promulgated December 28, 2007, after a public comment period in which input was sought on this specific issue. The “Response to Comments” document that MassDEP published with the final regulation explains why this suggestion was not adopted (see <http://www.mass.gov/dep/service/approvals/erpregs.htm#hg>).

10. Periodic updating of the number of vehicle switches available for collection

Comment: Table 1 of 310 CMR 74.07 reflects switch estimates that National Vehicle Mercury Switch Recovery Plan (NVMSRP) developed in September 2007 with End of Life Vehicle Solutions’ (ELVS) assistance. The team that developed the model understood that we would learn more about the switch population available for collection as the program progressed and that the model would be continuously improved as more information became available. We are presently reviewing a revision with NVMSRP partners that takes into account the increased export of used vehicles and the decreasing number of retired vehicles in the recent economic down-turn. These are data-driven adjustments which increase the accuracy of the model. The current evaluation of these data indicates that the number of switches available for retirement in 2008 is lower by approximately 12% from the earlier determination indicated in Table 1. An adjustment to use this updated assessment would increase the model’s accuracy.

Commenter: 5

Response: 310 CMR 74.06 requires vehicle manufacturers to implement a mercury switch recovery program that achieves at least 90% capture of all the switches available. Modifying the estimate of switches available may impact whether the manufacturers meet this target recovery rate. MassDEP will consider a future change in the regulations if the Department is provided with adequate documentation demonstrating the need for such a change.

11. Publish alternative methods of disposal on MassDEP website

Comment: The process under 310 CMR 76.04(2) for approval of alternative methods of disposal doesn’t specify how MassDEP will provide notice of these approved methods. MWRA suggests posting approval letters on MassDEP’s website.

Commenter: 6

Response: MassDEP will follow the regulation promulgation process outlined in M.G.L. Chapter 30A to add alternative methods of disposal that it determines to be acceptable to 310 CMR 76.04(2)(a) for categories or types of mercury-added products. The promulgation process includes a public comment period. Anyone interested in receiving notice of any proposed alternative method of disposal and the deadline for providing public comment on such proposal should provide their contact information to MassDEP’s mercury program manager. In addition, final regulatory changes will be posted on MassDEP’s website and published in the *Massachusetts Register*.

Applicants for case-by-case disposal alternatives will be required to follow a public comment process similar to the one for the exemption from the sales ban at 310 CMR 75.07(5). The

applicant must publish a notice of the proposed alternative for a specific case in a Massachusetts newspaper of general circulation as well as the Massachusetts Environmental Monitor. Both notices must include instructions on how to obtain a copy of the application. MassDEP will accept comments for a period of 21 days and will publish the decision on the agency website.

MassDEP has revised 310 CMR 76.04(2) to reflect this change.

12. Granting exemptions from sales ban is contrary to focus on source reduction

Comment: The regulations allow manufacturers to continue to sell products with mercury switches and mercury lamps after May 1, 2008 if that manufacturer applied for and received an exemption. At its most basic level, this exemption appears contrary to the EPA’s focus on source reduction at the front end rather than dealing with the mercury at the end of the supply chain. Additionally, if such an exemption is available to the manufacturer, then a similar exemption should be automatically available to everyone else in the supply chain for that product. Manufacturers should not be allowed to abdicate their responsibility at the expense of homeowners, municipalities, haulers, scrap metal yards and others along the lifecycle of a product, without compensating them and advising them.

Commenter: 7

Response: The statute specifically allows for the manufacturer of banned products to seek an exemption from the sales ban. The statute does not provide an exemption from the disposal prohibition.

The experience of other New England states that have implemented mercury product sales bans and exemption processes for several years indicates that few manufacturers apply for exemptions and that only a small number of applicants have received an exemption. The application for an exemption requires that manufacturers demonstrate the need for their particular mercury-added product for a specific application. Other states have granted exemptions only in very limited circumstances and for a specific time frame of two to three years, with the expectation that a non-mercury alternative will be developed to meet the requirement of that specific application. Most of the exemptions that are still in effect are for specific industrial applications where high temperature or pressure in specific industrial applications preclude the effective use of non-mercury alternatives. The mercury in these devices is required to be recycled when the product reaches the end of its useful life, and the devices are not believed to be common items that will show up in scrap metal yards on a regular basis.

13. Requirement of removal of mercury devices from “white goods” is onerous and may encourage abandonment

Comment: The regulations do not recognize the regional nature of the supply chain, from the manufacturer through the scrap dealer. Surrounding states do not have similar bans on “white goods.” Therefore, only Massachusetts scrap metal yards are impacted by this approach. While it is true that Massachusetts is currently the only New England state that requires certification of

mercury removal from vehicles, there is a national program that mandates new vehicles cannot be made containing mercury into which the mercury regulations fit. Hence, at some point, the issue of mercury in cars will become nonexistent. However, there is no corollary regional or national program for white goods. This, therefore, could have serious waste abandonment, dislocation or economic consequences for our state. The Phase 1 regulations included a bounty program for vehicles, paid for by the manufacturer to compensate for the removal of mercury devices. There is no similar program for white goods, placing the full financial burden on the consumer, municipality and middleman.

Commenter: 7

Response: The Mercury Management Act did not make manufacturers responsible for managing mercury components from products that are no longer produced, which is the case for most “white good” appliances that contain mercury components. MassDEP understands that the removal of mercury components from appliances requires time from staff at transfer stations and scrap yards. However, only a small number of white goods contain mercury components.

The Department recommends that removal of mercury components be handled in a manner similar to the evacuation of CFCs from appliances. Some facilities rely on specialized contractors, and others train staff to handle this material. Staff of facilities that receive white goods can be easily trained to identify the majority of types of appliances likely to contain mercury (see <http://www.mass.gov/dep/toxics/stypes/hgres.htm>, under Manage & Recycle Mercury Safely, click on Online Training: Recovering Mercury Devices from Appliances). Appliances that are suspected of containing mercury components can be segregated with other appliances containing CFCs for more specialized staff or contractors to manage. The cost of this added step will ultimately have to be borne by the generator of the end-of-life appliance through increased disposal charges or by the facility.

14. Exempt items with mercury devices that are difficult to access

Comment: We recommend that DEP undertake the same judicious public review for difficult-to-reach devices that was valid in the automobile sector. We understand that the scope of the situation for white goods may be significantly less than that for automobiles. However, a thorough vetting would be prudent and consistent with past actions.

Commenter: 7

Response: MassDEP has no evidence that most of the appliances that will end up at scrap recycling facilities have consistently difficult-to-reach mercury-added devices (whereas all motor vehicles have small mercury lamps behind their dashboards, and many new newer vehicles have these lamps in other electronic equipment). In fact, the percentage of appliances with any kind of mercury-added devices is small. MassDEP has published Guidance for Operators on Handling Products Containing Mercury at Conditionally Exempt Recycling Operations, which lists examples of end-of-life products containing mercury (<http://www.mass.gov/dep/recycle/laws/policies.htm#swmf>). MassDEP will update this document as we find other items that contain mercury that may be found in solid waste.

15. Public vetting of manufacturers’ collection plans

Comment: 310 CMR 75.04 required that manufacturers of mercury added products were to develop and file a plan with DEP for the collection, storage, transportation, and recycling of end-of-life mercury added products. It is critical to those of us further down the supply chain to know if the manufacturer plans were in fact filed, and do they provide any guidance to ease the burden on the middle man and others further along supply chain. A public vetting of these manufacturers’ plans is crucial to knowing if the regulations as proposed make practical sense.

Commenter: 7

Response: MassDEP will publish a list of manufacturers who have filed collection and recycling plans on our website, including the type of product and the mercury containing component. It will be updated annually or when new collection and recycling plans are filed.

16. Explicitly declare cleaning products non-applicable for 310 CMR 75.00

Comment: The Soap and Detergent Association recommends adding the words “cleaning products” to the description of mercury added formulated products that are exempt from the requirements of 310 CMR 75.04, found under 310 CMR 75.03, consistent with the statutory definition of mercury added formulated products.

Commenter: 8

Response: Cleaning products are specifically listed in the definition of “mercury added formulated product”, which are exempt from the definition of “mercury-added product”. MassDEP added the words “cleaning products” to this section for clarity.

ADDITIONAL REVISION AS A RESULT OF DEPARTMENT REVIEW

As a result of Department review, an additional revision was made to the proposed labeling regulations at 310 CMR 75.08 in order to ensure efficient and effective program implementation and manufacturer compliance. The revision clarifies MassDEP’s intent with respect to labeling of button cell batteries because of the practical difficulties of affixing a clearly visible and legible label on a button cell battery. 310 CMR 75.08(3)(c)3. states, therefore, that “[m]anufacturers of button cell batteries are not required to place a label on the product but shall place a label on the product packaging in accordance with 310 CMR 75.08(3)(d)3.”