



P.O. Box 1749  
Halifax, Nova Scotia  
B3J 3A5 Canada

**Info Item No. 2**  
**Environment and Sustainability Committee**  
**February 7, 2019**

**TO:** Chair and Members of Environment and Sustainability Committee

**SUBMITTED BY:** *-Original Signed-*  
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Brad Anguish, Transportation and Public Works

*-Original Signed-*  
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Jacques Dubé, Chief Administrative Officer

**DATE:** September 10, 2018

**SUBJECT:** Strategy for the Safe Disposal of Light Bulbs Containing Mercury

**INFORMATION REPORT**

**ORIGIN**

At the April 5, 2018, Environment and Sustainability Standing Committee session, a motion was approved to “request a staff report on a strategy for the safe disposal of light bulbs containing mercury and consideration of banning them from landfills”.

**LEGISLATIVE AUTHORITY**

Section 335 of the *Halifax Regional Municipality Charter* provides that:

“The Council may make by-laws respecting solid waste, including, but not limited to,

- (a) prohibiting persons from depositing any solid waste except at a solid-waste management facility;
- (b) regulating the disposal, collection and removal of solid waste;
- ...
- (e) prescribing the materials that may or may not be deposited at a solid-waste management facility of the Municipality or in which the Municipality participates;
- ...
- (g) requiring the separation of solid waste prior to collection; ...”

## **BACKGROUND**

Mercury is a naturally occurring element that is found in air, water and soil. Mercury is also an essential component of some energy efficient lighting (lamps) and is contained in minute quantities (milligrams) as phosphorus dust composition. Mercury is commonly secured in the manufacture of products and is not currently regulated by either the Federal or Provincial government in terms of its disposal. Mercury is found in products such as fluorescent tubes, high pressure sodium street lamps, compact fluorescent light bulbs (curly light bulbs or CFLs).

Mercury is a transboundary pollutant and is on the list of toxic substances under Schedule 1 of the Canadian Environmental Protection Act. The US Environmental Protection Agency (EPA) reports that mercury can be a health concern when exposed to water where fish may ingest and certain microorganisms can change it into methyl mercury. There is currently a voluntary code of practice for the environmentally sound management of end-of-life mercury. There is no Federal or Provincial producer responsibility program for the recovery of mercury in bulbs, however Environment and Climate Change Canada is consulting to develop a national strategy for safe and environmentally sound disposal of lamps containing mercury, expected to be introduced Spring 2019.

## **DISCUSSION**

In 2015, a Nova Scotia Mercury Collection program was introduced, funded by Nova Scotia Power Incorporated (NSPI), administered by Efficiency NS and delivered by Scout Environmental. The program is designed to keep mercury-bulbs and other residential and commercial lighting products containing mercury out of landfills. The commercial sector program includes collection and recovery of mercury-containing streetlights, appliance switches, thermostats, and business lighting. Business services includes free mercury collection. Drop off locations are available on the website at <https://www.efficiencyns.ca/service/mercury-collection/>



HRM commercial business operators have access to a no-cost drop off or pick-up services. The drop off location is Dan-X Recycling in Dartmouth, located at 64 Trider Crescent (Burnside Industrial Park).

Program parameters for free pick up service are that the business makes a request for a pick up of over 1,000 lighting units, businesses can either e-mail the request to [info@efficiencyns.ca](mailto:info@efficiencyns.ca) or call their hotline at 1-877-999-6035 (8am to 5pm).

This facility in Dartmouth processes the bulbs, separating the glass and metal components and the phosphorus powder and is under contract with Scout Environmental. Dan-X provides all light recycling/recovery services for the program now. Dan-X will accept all lighting that contains mercury including fluorescent tubes, CFLs, UV lighting, and High Intensity Discharge (HID) lamps. The drop off is operational Monday-Friday, 9:00 a.m. – 3:00 p.m.

In 2010, Solid Waste Resources developed an operational policy: “Policy on Disposal of Fluorescent Tubes from Commercial Generators” permitting small quantity (up to 30 fluorescent tubes) in commercial load deliveries received at the Otter Lake landfill, but re-directing at that time larger generators e.g. (from building lighting efficiency upgrades or from the demolition of commercial buildings) to the fee for service mercury collection program. With the new NS Mercury Collection Program which became effective 2015, staff’s intent is to now rescind the 2010 policy and replace it with a new operational policy: “Policy for Diversion of Mercury Containing Lamps/Fluorescent Tubes” (Attachment A). This policy will designate mercury bulbs/tubes as unacceptable for receipt for landfill and provide a list of options for diversion. During ICI load inspections, information regarding alternative disposal for mercury containing materials will be provided and warnings or load rejections could be issued when these materials are identified in deliveries.

The Efficiency NS site also lists drop off and collection site locations for residential waste generators. Residential compact fluorescent lamps (CFL’s) are accepted for drop off at Kent store locations in HRM as well as HRM’s Household Special Waste (HSW) depot facility operation and mobile depot events.

The cost for this program delivery is through NSPI, Efficiency NS and Scout Environmental. This includes handling and disposing of mercury containing bulbs/tubes generated from residential homes. Based on 2017 data, thirty-two 205 litre drums of bulbs were collected through HRM’s HSW program. The cost to package and manage this quantity is \$5,120. There will continue to be a cost not covered by the NSPI program to receive, package, store and arrange for loading and pick up materials from HRM’s HSW Depot. Halifax will pay Clean Harbours \$35/per pallet. Based on the quantities collected in 2017/18, the cost to HRM is approximately \$2,000 which is included in the approved 2018/19 budget and proposed 2019/20 and 2020/21 budgets for HSW operations.

Through a brief jurisdictional scan, Metro Vancouver, BC, was found to be the only municipal jurisdiction to introduce landfill bans in Canada. They have done so for materials that have provincially regulated stewardship programs for recycling, that includes florescent tubes, mercury containing tubes and bulbs.

### **FINANCIAL IMPLICATIONS**

There are no financial implications associated with this report.

### **COMMUNITY ENGAGEMENT**

To implement this policy initiative, staff will be engaging with commercial haulers and business generators to provide a 3-month notification of this new policy and to promote the existing mercury recovery program.

### **ATTACHMENTS**

Attachment A - “Policy for the Diversion of Mercury Containing Lamps/Fluorescent Tubes – Otter Lake Waste Processing & Disposal Facilities “

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A copy of this report can be obtained online at [halifax.ca](http://halifax.ca) or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Laurie Lewis, Program Manager-Policy & Outreach, Solid Waste Resources,  
902.490.7176

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## **DRAFT - Policy for Diversion of Mercury Containing Lamps/Fluorescent Tubes Otter Lake Waste Processing & Disposal Facilities**

A mercury diversion program is currently operating in NS. Efficiency NS, on behalf of NS Power Inc, provides residents and businesses with services for recycling fluorescent tubes as well as compact fluorescent light bulbs. This policy is intended to provide direction to the facility operator, commercial waste haulers and residential and ICI sector generators for the diversion all quantities of this waste away from the Otter Lake facility.

Effective 14 May 2019 (TBD), mercury containing bulbs/lamps will no longer be accepted at Otter Lake Facility. Loads that contain this unacceptable waste will be rejected. Alternative options for ICI diversion of fluorescent tubes, compact fluorescent light bulbs, etc. are provided below:

### Recycling Services:

- Dan-X Recycling Limited, 64 Trider Crescent, Dartmouth (Burnside Industrial Park)
- Dan-X will accept all lighting that contains mercury including fluorescent tubes, CFLs, UV lighting, and High Intensity Discharge (HID) lamps.
- Dan X accept drop off Monday – Friday, 9:00 a.m to 3:00 p.m.
- Generators with more than 1,000 pieces of lighting products, can request no cost pick-up by e-mail to [info@efficiencyns.ca](mailto:info@efficiencyns.ca) or call the Efficiency NS hotline at 1-877-999-6035 (8am to 5pm).
- All products to be dropped off must be packaged securely in walled-containers such as cardboard boxes. Bulbs are not considered secured in a garbage bag. Broken bulbs are unsafely packaged and unlabeled

Household generators of compact fluorescent (or other mercury containing materials) may take these materials for proper handling to HRM's HSW Depot Program.

A full list of accepted products, drop-off location maps, drop-off location guidelines and other program information is available at [www.mercuryns.ca](http://www.mercuryns.ca).

Original policy dated May 28, 2010 – rescinded

New policy Effective: May 14, 2019