Nova Scotia's Mercury Collection Program: Best Practices in Mercury Collection and Recycling

Jennifer Court, Senior Director Scout Environmental January 14, 2016

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Overview

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- Mercury in a Nutshell
- Our Approach
- Nova Scotia's Mercury Collection Program
- Priorities

Meet Scout Environmental

- Formerly Summerhill Impact
- Scout is a not-for-profit organization dedicated to developing and implementing product stewardship, retail sustainability and public engagement programs.
- We specialize in delivering innovative and meaningful programs that engage people to achieve measurable outcomes.
- Since 2001, we have delivered a portfolio of stewardship programs focused on mercury collection and recycling



Legacy Programs























Current Programs















Mercury Waste Storage and Management in Canada

- Research and stakeholder consultation project undertaken in 2012 for Environment Canada to assess mercury waste storage and management in Canada
- Prompted by imminent US regulatory change
- Focus on creating a snapshot of industry's practices around accepting, transporting, storing and managing mercury waste products
- Profiled 123 companies and conducted 26 in-depth interviews
- Researched best available technologies and best environmental practices

Best Practices in Waste Management for the Canadian Dental Community

- Stakeholder engagement project conducted in 2013 on behalf of Environment Canada to create a national guide to best management practices for hazardous and toxic wastes, including mercury
- Included overview of best management practices, acceptable practices, and dangerous disposal methods for all dental industry wastes
- Provided tailored content for all jurisdictions, including northern and remote regions, including specific regulatory requirements



Mercury Reduction – Crematoria Outreach and Consultation

- Stakeholder outreach and education project conducted on behalf of the City of Toronto in 2014
- Goals were to explore ways to reduce mercury emissions from crematoria and develop an industry guide to best practices for mercury management
- Scout engaged 40 stakeholders from government, dental industry associations and the funeral industry and conducted an extensive literature review to develop a guide to best practices for mercury management



Switch Out

- A program designed and delivered by Scout since 2001 to collect and manage mercury containing convenience lighting switches and anti-lock braking system sensor modules from ELVs
- Operating nationally since 2008 (truly national, operates coast to coast to coast!)
- Funded and supported by the Canadian Steel Producers Association (CSPA) and Canadian Vehicle Manufacturers' Association (CVMA)



Switch Out (continued)

- Delivered in partnership with the Automotive Recyclers of Canada (ARC) and the Canadian Association of Recycling Industries (CARI)
- Collection through automotive recyclers; switches are removed during depollution process
- Over 708,000 switches collected, equivalent to over 600 Kg of mercury
- Award-winning program



Switch the 'Stat

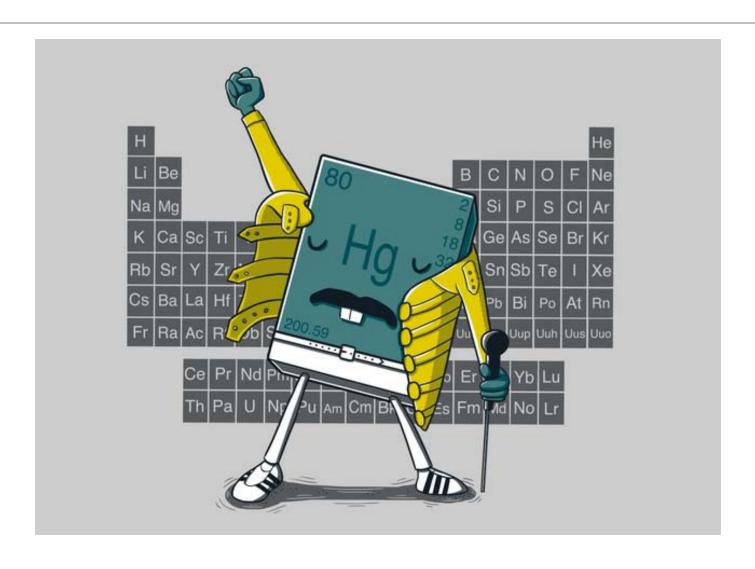
- A thermostat collection program, designed and piloted by Scout in 2006, in partnership with Union Gas
- Delivered nationally since 2010 on behalf of participating thermostat manufacturers
- Administered by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) and supported by the Canadian Institute of Plumbing and Heating (CIPH)
- Regulated in British Columbia and Manitoba, delivered voluntarily across Canada
- Voluntary collection by plumbing and HVAC contractors and wholesalers



Mercury in a Nutshell

- Mercury is a bioaccumulative, persistent, and toxic heavy metal that threatens human and ecosystem health. Mercury is a potent neurotoxin which is dangerous to the health of people and wildlife.
- Just one gram of mercury can contaminate an eighthectare lake to the point where the fish in that lake are not edible for one full year.
- Mercury was widely used in a variety of products due to its unique properties (the only metal that is liquid at room temperature)
- Mercury has been banned in most products in Canada and the US

Mercury in a Nutshell



Our Approach

- Keep mercury out of the waste stream
- Focus on safety
 - Training about safe mercury handling
 - Accept intact products whenever possible to reduce risks associated with dismantling
 - Collection containers and shipping methods comply with all health, safety and environmental regulations
- Appropriate storage/shipping containers
 - Containers are UN approved for storing and shipping mercury
 - Containers are durable and can be reused



Our Approach (continued)

- Collecting limited quantities of mercury allows flexible shipping options (e.g. Purolator, Canada Post)
- Programs are customized to user needs, optimizing public accessibility and ease of participation at collection locations
 - Easy for businesses to participate
- Free access
 - No registration fees
 - Pre-paid waybills for small containers
 - Costs of mercury recycling are covered by program
- Working with trusted partners for mercury processing and transportation



Nova Scotia Mercury Collection Program - Overview

- A multi-stream mercury collection program
- Goal to collect and safely recycle mercury-containing products
- Residential and commercial products including:
 - Mercury-containing streetlights
 - Business lighting
 - Appliance switches
 - Thermostats
 - Orphan mercury products
 - Residential lighting

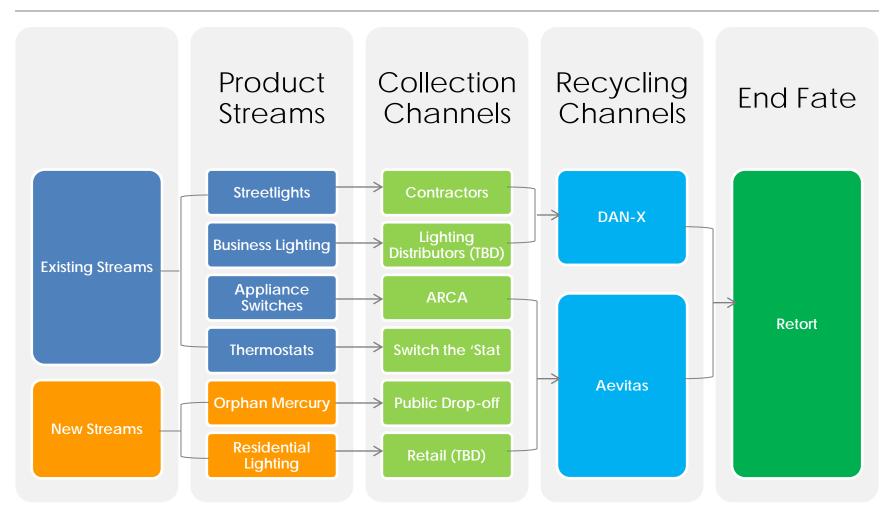
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Nova Scotia Mercury Collection Program - Snapshot



Priorities

- Diverting mercury from the waste stream
- Safe collection for all streams
- Program accessibility
- Continuous improvement
- Broad range of products accepted
- All components of all products are responsibly managed

Questions?

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To learn more about Nova Scotia's Mercury Collection Program:

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