

**A PROGRAM PROVIDING FOR STATEWIDE
COLLECTION AND RECYCLING OF MERCURY-
CONTAINING LAMPS DISPOSED BY COVERED
ENTITIES IN VERMONT**

SUBMITTED BY:

*THE NATIONAL ELECTRICAL MANUFACTURERS
ASSOCIATION ON BEHALF OF DESIGNATED
MANUFACTURERS OF MERCURY-CONTAINING
LAMPS, PURSUANT TO 10 V.S.A. Chapter 164A*

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Executive Summary

This proposed program for the recycling of mercury-containing lamps (the "Program") has been prepared according to the requirements of *"An act relating to the collection and disposal of mercury-containing lamps,"* (the "Act"), signed by Vermont Governor Peter Shumlin in May 2011. This law requires manufacturers of mercury-containing lamps, individually or collaboratively, to submit a collection plan that provides for the collection of mercury-containing lamps from "covered entities," as defined in the Act. Collection must be available at no cost to consumers at the point of disposal. The required elements of the collection plan, as well as other manufacturer obligations, were enacted as Senate Bill 034 and are codified in 10 V.S.A. Chapter 164A.

This plan describes a program of activities that will extend from January 1, 2021, to December 31, 2023. The manufacturers obligated under the Act that have elected to comply by participating in this three-year program are listed in Appendix B together with copies of signed manufacturer agreements. These companies will fund the program collectively through the National Electrical Manufacturers Association (NEMA).¹ NEMA staff – or a designated representative thereof – will serve as principal point of contact for Program activities, heretofore cited as "Program Coordinator."

Section § 7154 of the Act lists four required elements of manufacturer collection programs:

- **Free collection of mercury-containing lamps.** The collection program shall provide for free collection of mercury-containing lamps from "covered entities," which are defined in the Act as *"any person who presents to a collection facility that is included in an approved plan:*
 - (A) any number of compact fluorescent mercury-containing lamps;*
 - or*
 - (B) Ten (10) or fewer mercury-containing lamps that are not compact fluorescent lamps."*

The Program shall accept all eligible, mercury-containing lamps brought to its collection sites, regardless of whether the manufacturer of the lamp is a program participant. All costs incurred through the collection, transport, and processing of eligible lamps will be borne by the Program.

- **Convenient collection locations.**
 - The program must provide its service to all municipal collection locations and all retailers that sell mercury-containing lamps to opt to be a collection facility; and.

¹ See www.nema.org. Most participants in this program are Member Companies of the NEMA Lighting Products Division.

- at a minimum, the program must have not less than two collection facilities in each county.
- Public Outreach. The collection plan must include an education and outreach program that may include “*media advertising, retail displays, articles in trade and other journals and publications, and other public educational efforts.*” At minimum, education and outreach activities shall notify the public of the following:
 - That there is a free, statewide collection program for mercury-containing lamps,
 - The location of collection points and how a covered entity can access the program, and
 - Special handling considerations associated with mercury-containing lamps.
- Compliance with appropriate environmental standards. The Act dictates that the Program must be designed and operated in compliance with “*all applicable laws related to the collection, transportation, and disposal of mercury-containing lamps*” as well as “*any special handling or disposal standards established by the secretary for a mercury-containing lamp or for the collection plan of the manufacturer.*”

This proposed Plan is submitted pursuant to the above-referenced provisions of the Act for all applicable types of lamps provided by “covered entities” (See Appendix A for definitions of this term and others used herein.) The manufacturers listed in Appendix B will fund all activities conducted by the Program, which will be under the administrative management of NEMA.

All aspects of the Program, as described herein, are subject to review and approval by the Vermont DEC, as outlined in §7156 of the Act.

Introduction

In May 2011, Vermont Governor Peter Shumlin signed S.034 into law, thereby enacting “*An act relating to the collection and disposal of mercury-containing lamps.*”² The second statewide lamp recycling mandate to be passed in the US (Maine was the first), S.034 dictates that manufacturers of mercury-added lamps sold or distributed in Vermont to “*...individually or as a participant in a stewardship organization, shall submit a collection plan to the secretary for review.*” The plan must outline a program for the collection and recycling of mercury-containing lamps from “covered entities” throughout the state. The Vermont DEC has administrative authority to approve the program, following review and public comment.

Important statutory definitions pertaining to various elements of the Act are provided in Appendix A.

² See <https://legislature.vermont.gov/statutes/chapter/10/164A>

Participating Manufacturers

This proposed plan for recycling of mercury-containing lamps from covered entities in Vermont has been facilitated through the NEMA Light Source Section. The plan is submitted on behalf of NEMA Member companies and other, non-NEMA Member lamp manufacturers in fulfillment of their obligations under the Act. All participating companies are listed in Appendix B.

The manufacturers listed in Appendix B will fund all activities conducted by the Program, which will be under the administrative management of NEMA. In addition, each participating manufacturer has provided adequate representation, through signed agreements attached in Appendix F, to certify that:

- NEMA is not a stewardship organization and therefore the manufacturer assumes all responsibilities, obligations, and liabilities of the Plan and Program.
- NEMA is providing recycling program coordination services to multiple individual lamp manufacturers under a common mercury-containing lamp collection and recycling Plan and Program to facilitate a more efficient Program than individual manufacturers could provide on their own.
- Any failure to meet statutory requirements and obligations of the Plan or Program is the responsibility of the manufacturer. Any violation of statute may result in Vermont Department of Environmental Conservation taking action against the manufacturer for failure to meet statutory obligations.

NEMA will facilitate and manage Program operations on behalf of the companies listed in Appendix B for the full term approved by DEC but will not function as a Stewardship Organization as that term is defined and used in 10 V.S.A. Chapter 164A. The NEMA role will be solely administrative, and all legal obligations under the Act will remain with the participating manufacturers.

Additional manufacturers of mercury-containing lamps used by covered entities are eligible to participate in the Program by meeting the requisite financial requirements established by NEMA in accordance with existing participants. Interested companies are advised to contact NEMA, Attention: Lamp Recycling Program Coordinator, 1300 N. 17th Street, Suite 900, Rosslyn, VA 22209, email: support@lamprecycle.org, Phone: 800-301-1852.

Following approval of the plan by the Vermont DEC, NEMA will commence implementing the Program on January 1, 2021, as required by the Act. The Program will remain in effect for the 3-year period ending December 31st, 2023.

Covered Products

As specified by 10 V.S.A. 164A, products eligible for collection under the Program include general purpose lamps to which mercury is intentionally added during the manufacturing process. “Mercury-containing lamp” does not mean a lamp used for medical, disinfection, treatment, or industrial purposes. [See § 7151 (5) of the Act.] General purpose lamps can include compact fluorescent lamps as well as ten (10) or fewer general service lamps, including linear fluorescent lamps that are less than or equal to 8 feet in length, U-tube or Circline fluorescent lamps, and high intensity discharge (HID) lamps.

Products Sold by Manufacturers Not Participating in this Program

§ 7152 of the Act states that manufacturers of mercury-containing lamps cannot provide mercury-containing lamps for sale in Vermont beyond July 1, 2012 unless they implement an approved collection plan and satisfy other requirements. The Vermont DEC retains the authority to ensure that current and past manufacturers of mercury-containing lamps sold in Vermont are compliant with the law.

The Program – through NEMA – may, upon request, provide DEC with information on costs incurred by the Program due to non-participating manufacturers. Any information supplied to DEC will be deemed business confidential.

Planned Program Operations

Under the Program, all municipal solid waste management facilities and retailers who sell mercury-containing lamps in Vermont will have access to the services of a designated lamp recycler. These services may be obtained by completing and submitting a participation agreement to the Program. Upon receipt, the Program will authorize the designated lamp recycler to create an account and email information to the facility or retailer point-of-contact on how to access Program services.

The designated lamp recycler will, without charge:

- Provide containers, services, and support for the collection of each type of eligible lamp returned by covered entities;
- Arrange for the transport of eligible lamps from collection sites to the recyclers' processing facility;
- Recycle waste lamps in accordance with all applicable federal, state, and local regulations; and
- Provide information on handling and practices for compliance with the universal waste rules adopted pursuant to Subchapter 9 of Vermont Hazardous Waste Management Regulations and all other applicable requirements.

The Program will compensate the designated lamp recycler(s) for these services.

Alternatively, qualified collection sites that provide such services on their own may request reimbursement from the Program for eligible costs incurred for transportation and recycling activities in amounts up to but not exceeding the amount established under contract with the designated lamp recycler(s).

The Program provides the services outlined above through vendors selected under a competitive bidding process. These companies are retained by the Program through private contracts, which specify the services to be provided in detail and list the terms and conditions applicable to collection sites. The Program, at its sole discretion, may modify or extend the term of the agreement(s) with current vendors or, if circumstances warrant, terminate existing contracts, and retain new vendors through a further competitive solicitation.

As of the date of this submittal, the Program has contracted with Veolia ES Technical Solutions LLC ("Veolia") until April 2022. The contract specifies procedures whereby retailers and municipalities who agree to participate in the collection of mercury-containing lamp waste pursuant to the Program can order and receive Veolia Recycle-Pak[®] collection containers for mercury-containing lamp waste, which are paid for by the Program. When filled, these containers are shipped to Veolia for recycling services, the cost of which are reimbursed by the Program pursuant to the NEMA Services Agreement with the company. Shipping terms may include Less than Truckload (LTL) or FedEx Ground. LTL shipping can be available by request for collection locations that receive large volumes of eligible lamps.

Requirements for Collection Sites

Participating retailers, individual towns and solid waste management entities (SWMES) must ensure that they – or collection locations in their purview - will take all necessary steps to satisfy the following criteria. Participants must:

1. Accept mercury-containing lamps from covered entities in Vermont and have a system in place that segregates lamps from parties that do not meet the definition of covered entities provided in § 7151. Costs incurred at the site for accepting, storing, and processing lamps, including but not limited to salaries and overhead, that fall outside of this definition are not eligible for reimbursement under this Program;
2. Utilize staff trained in the proper handling and storage of universal waste and emergency procedures in the event of a spill for tasks of accepting and processing waste lamps through this program. The Program and/or the designated lamp recycler will provide training materials on the proper management and storage of waste lamps on their respective websites. Collection locations may use these materials to

- train staff;
3. Comply with all applicable requirements of Vermont's universal waste law and regulations, including maintaining documentation of the training in accordance with state and/or federal universal waste rule;
 4. Maintain a permanent storage facility for waste that is secure, weathertight and complies with all additional local, state, or federal regulations; and
 5. Take reasonable steps to guard against incidental breakage of lamps.

Locations also are required to identify a point of contact for the Program, provide contact information, and agree to standard terms and conditions provided by the designated lamp recycler(s). Each site also must agree to indemnify the Program and lamp manufacturers - individually and collectively - against liability in the event of violations of CERCLA, RCRA, or other applicable laws and any regulations or requirements enacted under their authority. See Appendix C for examples of the agreements that embody these conditions and stipulations.

The designated lamp recyclers' standard terms and conditions are attached as Appendix D. They are provided with each container, and acceptance of the container is deemed to be acceptance of the terms and conditions.

Should the Program deny a collection site's application to participate in the Program for any reason, NEMA's program administrator will notify the Vermont DEC *via* electronic or physical mail within seven (7) days. The notification will include the contact information of the relevant applicant and the justification for the denial of services. The Program will consider and respond to any concerns the Department may express concerning the denial and seek to resolve any outstanding disagreements.

The Program remains open to additional retail or municipal locations that wish to serve as collection sites.

Obtaining Services Provided by the Program

As noted earlier, the Program holds a contract with a qualified lamp recycling company to provide lamp collection services to eligible individual municipalities, solid waste management districts, and retail locations participating in the Program. This lamp recycling company will transport and process all mercury-added lamps collected from covered entities and are currently the sole provider of services offered by the Program.

Collection locations can arrange services *via* the custom program website: <https://lamprecycle.veoliaes.com>, or toll-free number at (888) 669-9725. Collection locations can contact the Program toll-free at (800) 301-1852 or *via* email at support@lamprecycle.org for assistance with lost passwords or to update point-of-contact information for their location(s).

Retailers

The Program currently allows retail locations to choose from a menu of storage and shipping containers designed to hold varying numbers and types of general service, mercury-containing lamps. Initial orders may be restricted to a designated number of each container type per participating retailer. The Program and its designated lamp recycler(s) will review this restriction periodically and may adjust it to accommodate changes in demand/shipment volume. Larger orders will be addressed on a case-by-case basis.

Retailers may order storage and shipping containers from the lamp recycler(s) either through the internet or by calling a toll-free number. As noted above, the current vendor – Veolia - maintains a custom, secure website, accessible at <https://lamprecycle.veoliaes.com>. It is a single-source site for ordering and tracking orders from collection locations in Vermont.

User IDs and passwords needed for this process are administered by Veolia. Participating sites may request IDs and Passwords, obtain assistance with lost passwords, and update point-of-contact information for their location(s) by contacting the Program toll-free at (800) 301-1852 or via email at support@lamprecycle.org.

Each shipping container comes with a pre-printed return shipping label that includes a tracking number. When containers are ready to be shipped, retail, municipal, and district collection locations may call Federal Express Ground toll-free at (800) 463-3339 or visit the Veolia to request transportation of up to 25 shipping containers per request.

The Program can arrange alternative shipping arrangements for large quantities of lamps, including LTL ("less than truckload") orders, either as "one-off" events or on a recurring basis. Requests for alternative transportation are coordinated by NEMA designated program coordinator with the lamp recycler.

Collection locations are on "automatic reorder" status for shipping containers, whereby replacement containers are shipped to the site upon receipt of filled container. The system ensures that replacement containers match the containers received. If a collection site is not provided replacement containers, collectors may contact the designated recycler to request containers.

Individual Towns and Solid Waste Management Districts

The Program facilitates the collection of lamps from municipal SWMEs or individual towns through either prepaid storage and shipping containers using the same process articulated above for retailers or periodic pick-up using trucks operated by a designated lamp recycler. Scheduling of pick-ups will vary by location and be arranged, upon request, through coordination

with the NEMA program coordinator and lamp recycler. Enabling regular pick-up arrangements can help to maximize efficiency and limit costs.

The Program can arrange alternative shipping arrangements for large quantities of lamps, including LTL ("less than truckload") orders, either as "one-off" events or on a recurring basis. Requests for alternative transportation are coordinated by NEMA designated program coordinator with the lamp recycler.

Individual towns or municipal districts that opt-out of direct participation in the Program may request reimbursement for eligible lamps recycled through a vendor employed independently by the town or district.

Reimbursement requests for collections made outside of the Program may be submitted no more frequently than once per calendar quarter. NEMA will notify DEC for any requests received more than 30 days following the end of the program's fiscal year (December 31st).

At the end of each calendar quarter, the Program Coordinator will notify participants in the reimbursement program by email that reimbursement claims are due. The Program will provide a standard form for reimbursement requests, which must include supporting documentation for the stated quantities to qualify for payment.

The Program Coordinator processes reimbursement claims within 15 days of receipt. Claimants can expect payment *via* check to be mailed within 45 days of receipt of the claim.

Processing of Waste Lamps

Upon receipt of shipping containers or truck-borne quantities of waste lamps, the designated lamp recycler(s) will record the contents by lamp type received by container or truck. The recycler(s) will disassemble the lamps and reclaim the mercury content, either on-site or at facilities designated and approved within the contract.

The Program's website (<https://lamprecycle.veoliaes.com>) contains contact information for the designated lamp recycler for collection sites that desire further information on where and how the Program processes mercury-containing lamps.

Public Education and Outreach

The Vermont statute requires that manufacturers' mercury-containing lamp program feature education and outreach activities that may include media advertising, retail displays, and earned media in trade, digital platforms, or other media. These activities must be designed to notify the public, at minimum, of the following:

- A free program collection program for mercury-containing lamps exists across the state.

- The location of collection points and how to access the collection program.
- Special handling considerations for mercury-containing lamps.

Tactics

Lighting manufacturers promote the recycling of mercury-containing lamps through a variety of collective and company-specific mechanisms. Every mercury-containing lamp sold in North America contains a package label that warns of the presence of mercury and directs the purchaser to either a US EPA website or to www.lamprecycle.org. The latter is an industry-managed site that provides general information on recycling as well as material and guidance for the statewide programs in Vermont and Maine. Participation agreements, Program collateral, and reimbursement forms for Vermont collection sites all are available on this site.

With regard to Vermont, NEMA will undertake the following actions under the revised Program plan.

1. Location Communications – The Program will conduct one or more direct mailing(s) to collection locations each year to disseminate program and designated recycler contact information - including websites and toll-free phone numbers to order containers and arrange transport. Select mailings to collection locations or sponsoring organizations may include promotional collateral such as window clings or posters.

The Program will seek to expand its database to capture phone numbers and email addresses for points of contact at collection locations. To the extent this information is available, the Program and/or its designated recycler will use it to issue reminders to locations that have not shipped a container within the previous nine months.

Following plan approval, the program will mail correspondence to points-of-contact listed on existing participation agreements notifying them of recent changes to the agreement. Correspondence will indicate that continued participation in the program constitutes approval of the new agreement. For participants that desire a new agreement; instructions will include a website address to download a copy of the revised agreement and an email or postal address for transmitting a newly executed agreement.

2. Website – NEMA plans to update www.lamprecycle.org in the first quarter 2021. The update will include new site templates, refreshed content, and search engine optimization (SEO).

Concurrently, the Program will update the Vermont-specific page by creating a new subdomain for the Program, improving the usability of

the location locator, SEO optimization, and reorganizing content.

In addition, at least once per year, the Program will review collection locations and update the website's collection site locator. The review will use shipment data, phone calls to locations, returned mail from locations, internet searches, plus outreach to staff at waste management districts and the Department to validate site participation, physical and mailing information.

3. Promotional collateral – The Program reviewed and updated its promotional materials in the second quarter of 2020, and sufficient inventory was printed for several years. Modified collateral items include a poster, retail window cling, and retail shelf-talker. These items are available at no cost to participating collection locations, DEC staff, individual towns and SWMEs. Participating entities can order outreach materials from the designated recycler's website. Individual towns or SWMEs participating on a reimbursement basis may request collateral by contacting Program management staff.

The Program and or its designated recycler will remind locations periodically of the availability of these items. Reminders may come in the form of postal mail and/or electronic mail.

In the third year of this plan, the Program will review its collateral and determine, in consultation with the Department, if updates are warranted.

4. Advertising – The Program will conduct a yearly advertising campaign that targets covered entities through a variety of channels. Campaign messaging will raise public awareness of disposal prohibitions and ease of access to the Program. The campaign will target permanent and seasonal Vermont residents (*e.g.*, owners of second homes) geographically.

The campaign will primarily rely on digital advertising. Outlets will include social media platforms like Facebook and Instagram, Vermont news publications, other outlets like Front Porch Forum, and Vermont readers of national media outlets like the New York Times.

The Program may selectively include traditional media in the campaign such as print ads in major Vermont print publications.

The program will reserve a portion of its advertising budget to support participation in the annual, joint EPR campaign involving other industry-run recycling programs that is coordinated by the Department. This campaign may include digital or radio advertising.

5. Social Media – The Program created accounts on Facebook and Instagram in the spring of 2020. These platforms will serve as the basis

of a social media presence with an emphasis on Vermont consumers and small businesses.

6. Select Collection Location Visits – As in past years, the Program will conduct a minimum of five days field work annually in Vermont that will include personal visits to collection location or waste management districts.

Annual Report

As required by §7153 of the Act, the Program will continue to submit an annual report to the DEC on a calendar year basis, no later than April 1st of the year following the relevant plan year. As required in the DEC program guidelines, each annual report will provide:

- A description of the collection program;
- The number and type of mercury-containing lamps collected and the collection facility from which the lamps were collected;
- An estimate of the number of mercury-containing lamps available for collection and the methodology used to develop this number; and
- The steps the Program has taken during the past program year to improve the collection rate.

The third item above stems from §7153(a)(3) of the Act. The report will contain this estimate, but manufacturers continue to assert - based on prior experience with estimation attempts - that this number is extremely difficult to calculate with a reasonable degree of confidence. Aside from the usual uncertainty factors that affect the outcome of the estimation, the Act in Vermont provides additional challenges.

Under the Vermont statute, the Program must accept any number of CFLs from covered entities and up to ten non-CFL general purpose lights. This provides an incentive for small businesses and institutions such as schools or government facilities to bring their CFLs and other non-CFL mercury-containing lamps to Program collection sites.

Lamps for those uses typically are not acquired through retail channels, but through wholesale electrical distribution outlets that supply lamps to commercial users of all sizes on a multi-state or regional basis. There is no practical way for manufacturers to determine the number of lamps sold into this channel that ultimately go into service in a particular state, and there is no way to determine how many of these end up being recycled through the Program by either covered or non-covered entities. Any estimate would therefore be a poorly substantiated guess and an inadequate basis for estimating collection rates.

Plan Audit

Section 7153 of the Act requires that once every five years, the Program hires an independent third party to audit the plan and its operation. The purpose of the audit is to examine the program's effectiveness at collecting and disposing of mercury-containing lamps, evaluate the cost-efficiency of the program, and compare it to similar lamp collection programs in other jurisdictions. The auditor is required to make recommendations to the Secretary on measures to increase program efficacy and cost-effectiveness.

The Program conducted an audit in 2017, and the auditor submitted his report to the Secretary on August 31st of that year. The next audit will take place in the year 2022, and the recommendations will be sent to the Secretary no later than September 1st, 2022. The Program will notify the Vermont DEC on or before March 1st of that year of its plan to undertake an audit.

Amendment

If circumstances arise that threaten the viability or operability of the Program, manufacturers reserve the right to request submission of an amended program to the DEC.