productcare RECYCLING

NEW BRUNSWICK LAMP STEWARDSHIP PLAN

Submitted to:

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1. INTRODUCTION

The Government of New Brunswick repealed the *Designated Materials Regulation 2008-54* and, effective July 15, 2024, replaced it with the *Designated Materials Regulation 2024-37* (the "Regulation") under the *Clean Environment Act* (O.C. 2024-166), requiring lamps to be managed under a designated stewardship plan. New Brunswick becomes the seventh province to regulate lamp products under an extended producer responsibility framework.

The Regulation outlines information on roles and responsibilities for Recycle New Brunswick ("Recycle NB") and designation of producer responsibility organizations ("PROs"):

"Powers of the stewardship board:

7(2)(d) establish and administer, with respect to the manufacture, importation, distribution, sale, supply, offering for sale or supply, packaging, labelling, use, storage, collection, transportation, recycling, processing, disposal or other handling of a designated material,

(i) a management program, or

(ii) an oversight program"

Recycle NB is responsible for establishing and administering oversight or management programs for designated materials, including lamps.

"Designation of a producer responsibility organization

37 *For the purpose of performing on their behalf the obligations imposed under this Regulation in relation to the management of a designated material,*

- *(a) a producer may designate a producer responsibility organization, and*
- *(b) more than one producer may designate the same producer responsibility organization."*

Producers may designate a PRO to carry out the obligations under the Regulation on their behalf, and multiple producers may designate the same PRO to operate a common lamp stewardship plan.

"Submission of a stewardship plan:

38(1) A producer shall, with its application for registration, submit a stewardship plan for the approval of the stewardship board."

All obligated producers must register with Recycle NB and submit a stewardship plan for approval. The plan must outline how the producer or their designated PRO will manage the designated materials in compliance with the Regulation.

This New Brunswick Lamp Stewardship Plan (the "Plan") was developed in accordance with the Regulation and is submitted on behalf of the producers listed in Appendix A, who have designated Product Care Association of Canada ("Product Care"), pursuant to Section 37(a), to implement and operate the Plan.

In accordance with Section 77(4) of the Regulation, the Plan will be implemented within 180 days of Recycle NB's approval, and in accordance with Section 40(4), the stewardship board shall set the expiry date of the plan, which shall not exceed five years from the date it comes into force.

2. ABOUT PRODUCT CARE ASSOCIATION OF CANADA

Product Care was formed in 1994 in response to North America's first paint stewardship regulation (British Columbia). Product Care is federally incorporated under the Canada Not-for-profit Corporations Act, as a not-for-profit product stewardship association. It was established as an agency to allow its members to meet their obligations under applicable extended producer responsibility legislation. Product Care is governed by a multi-sector industry Board of Directors.

Celebrating 30 years of leadership in extended producer responsibility programs, Product Care operates and manages over 20 stewardship programs, including all six of the regulated lamp stewardship programs in Canada:

- British Columbia
- Manitoba
- Ontario
- Québec
- Nova Scotia
- Prince Edward Island

Other products and programs managed by Product Care include paint, household hazardous waste/hazardous and special products, smoke, and carbon monoxide alarms. Product Care has been managing the New Brunswick Paint Stewardship Program since 2009.

3. PLAN MEMBERSHIP

This Plan is submitted by Product Care on behalf of obligated lamp producers ("producers") who have designated Product Care as their PRO in accordance with section 37 (a) of the Regulation. Product Care's membership includes producers (brand holders, importers, retailers, marketplace facilitators, or franchisors) of "lamps" as defined according to the Regulation. Membership in the Plan is open to any obligated producers, subject to the terms of Product Care's membership agreement.

Appendix A lists all producers (with corresponding addresses) that have designated Product Care to operate the Plan on their behalf. Any new producers entering the marketplace after the Plan submission date will be directed to register with Recycle NB and invited to designate Product Care as their PRO, become a Product Care member, and be included under this Plan.

Product Care will inform Recycle NB of any non-compliant producers and of any potential free-riders for compliance activities in the province. New obligated producers will be directed to register with Recycle NB and invited to designate Product Care as their PRO.

4. FUNDING

The Plan will be funded by membership fees, known as "environmental handling fees" (EHFs), remitted to Product Care by its members based on the quantity of sales of the designated lamp products sold in or into New Brunswick. The EHFs are not a tax or a refundable deposit.

Section 50(2) of the Regulation notes the following:

"A producer or retailer who recovers costs shall integrate those costs

> *(a) in the total advertised sales price of a designated material or a product containing or including a designated material, and*
>
> *(b) in the total sales price appearing on the receipt of sale of a designated material or a product containing or including a designated material."*

Therefore, the EHFs may not be shown as a separate fee and must be included in the total product price. Section 50(3) of the Regulation does permit a producer or retailer to inform the public that the total sales price includes the cost recovered (EHF rates).

"50(3)A producer or retailer is not prohibited from informing the public that the total sales price of a designated material includes costs recovered under subsection (1) and communicating the amount of those costs to the public."

Revenues generated by the EHF are used for the management of the Plan, including but not limited to:

- Administration,
- Public education and communication,
- Collection, transportation, recycling, recovery, and responsible disposal of collected lamps,
- Any fees assessed by Recycle NB's stewardship board for administration, as required by section 47(1) of the Regulation,
- Establishing and maintaining a reserve fund.

A reserve fund ensures the Plan's long-term sustainability and covers wind-up costs in case of regulatory changes. It provides stability if collection and recycling costs exceed EHF revenue and helps manage fluctuations in operating costs or revenue due to economic shifts or changes in lamp technology.

To meet Recycle NB's requirement that the amount held in the reserve fund for the plan not exceed the average of one year's operating expenses over the life of the plan, Product Care will apply its Board-approved Reserve Fund Policy and Environmental Handling Fee (EHF) Policy.

The reserve fund will be overseen by Product Care's Board of Directors. An annual review will be conducted for the year ending December 31, to be completed by June 30 of the following year, to determine whether the reserve is aligned with projected program expenses for the upcoming fiscal year.

Product Care will also annually undertake a review of the EHF and adjust the program fees by no later than April 1st of the following year, unless the financial forecast indicates that, by December 31st of that year, the reserve fund will be sufficient to cover the forecasted expenses for the subsequent year in accordance with Recycle NB's reserve fund policy.

While this is the objective, maintaining alignment of the reserve fund with annual expenses can be challenging, particularly in the early years of a program or when unexpected market fluctuations occur. Given the complexity of the lamp sector, EHF changes can have wide-ranging impacts. Product Care, therefore, aims to maintain stable fees to ensure predictability and minimize disruptions, avoiding frequent adjustments where possible.

The EHF rates are set by Product Care and are subject to change as needed to address surpluses or deficits and to ensure the sustainability of the program. Given that the program does not have direct control over its revenue stream, EHFs are reviewed on a regular basis to ensure the Plan is financially sustainable. EHF rates will be posted to Product Care's website.

5. PRODUCT DEFINITION

Regulatory Requirement
39(b): a description of categories of material to be used for the purposes of annual reports and performance measures and targets

5.1. PRODUCTS ACCEPTED

Lamps are marketed and sold through various channels to both residential and commercial end users. This Plan is designed to collect and manage end-of-life lamps whether they are marketed for residential, industrial, or commercial purposes.

The Plan will accept lamps as defined in Section 69 of the Regulation,
"Definition of "lamp"
69 For the purposes of this Division, "lamp" means a replaceable light source designed to produce light from electricity, including but not limited to:
(a) a fluorescent tube;
(b) a compact fluorescent lamp;

(c) a high-intensity discharge lamp;
(d) an incandescent lamp; and
(e) a light-emitting diode lamp."
A lamp can be sold individually, as a replacement lamp, or integrated into a product (such as a fixture, a flashlight, etc.). When sold integrated into a product, the lamp must be designed to be easily removable from that product by the consumer and intended to be replaced with a new lamp.

For the Plan's annual reports, applicable performance measures, and targets, all lamps under the Plan will be classified into two categories of materials, mercury-containing lamps (MCLs) and non-mercury containing lamps (Non-MCLs). These categories are outlined in Table 1.

Table 1. Categories of Material

Category	Description
Category 1 – Non-MCLs	Non-mercury containing lamps, including: Incandescent, halogen, and LED lamps/tubes
Category 2 - MCLs	Mercury-containing lamps (MCLs), including: HID and CFL lamps, fluorescent tubes

5.2. PRODUCTS NOT ACCEPTED

The Plan is only responsible for accepting and managing products under the Plan. Minimization of non-accepted products will be achieved through a comprehensive program of public education, signage, and collection facility staff training.

When users return lamps accepted under the Plan, lamps must be removed from all fixtures/products and not be attached to or integrated into products.

Not accepted products include, but are not limited to, the following:

- Lamps integrated into products that are not intended for replacement by end users,
- Christmas lights and string lights with integrated lamps, for which, the lamps are not intended for replacement by end-users,
- Lamps included in new vehicles i.e. cars, boats, ATVs, etc. that are not intended for replacement by end-users,
- Fixtures,
- Ballasts.

6. COLLECTION AND MANAGEMENT SYSTEM

6.1. COLLECTION SYSTEM

Lamps from all sectors, residential, institutional, commercial, and industrial, will be accepted through the collection system, regardless of brand, and there will be no charge for accepting lamps at any collection site.

Regulatory Requirement

39(g): a description of the manner in which existing collection and processing systems have been taken into account to maximize waste diversion in the Province

While other designated product categories, such as batteries and electronics, already had established province-wide collection systems prior to their inclusion in the Designated Materials Regulation, no equivalent established program exists for lamps in New Brunswick. The existing lamp collection is limited to specific lamp types, particularly mercury-containing lamps, through certain RSC-led household hazardous waste programs. These programs are generally seasonal or event-based, with limited permanent infrastructure.

To support the development of a province-wide lamp collection network under this Plan, Product Care has reviewed existing collection activities and infrastructure across New Brunswick. This has included direct engagement with all 12 RSCs and outreach to a range of potential partners, including:

- Existing paint collection sites
- Other Producer Responsibility Organizations (PROs)
- Retailers
- Not-for-profit organizations

All current paint collection sites in New Brunswick were contacted through a bilingual fact sheet mailout, followed by individual outreach. Agreements have been sent to sites that expressed interest, with discussions ongoing with the remainder. Several partners have confirmed participation or are in the process of finalizing agreements ahead of the program launch.

Existing Collection Activity Overview

Through discussions and research, the following lamp collection activities were identified:

- **RSC 5 (Greater Miramichi):** Hosts annual events where EcoDiversion accepts all lamp types; no permanent drop-off depots.
- **RSC 7 (Southeast):** Offers permanent collection at its landfill and operates periodic collection events across municipalities for mercury-containing lamps.
- **RSC 8 (Kings):** Collects mercury-containing lamps through event-based programs.
- **RSC 12 (Western Valley):** Offers lamp collection exclusively through events.

Product Care will build on these efforts by partnering with interested RSCs as part of a broader strategy to develop an accessible, province-wide network.

Expanded Outreach Strategy

In addition to existing partners, Product Care is expanding outreach efforts to include:

- Not-for-profit organizations such as the **Eastern Recyclers Association (ERA)**
- Other PROs such as the **Electronic Products Recycling Association (EPRA)**
- Retailers identified from pilots in other provinces

Leveraging National Experience

While building the collection network for this Plan, Product Care will draw upon its 30 years of experience in developing collection networks in other provinces and managing New Brunswick's paint stewardship program.

Experience has shown that consumers prefer a "one-stop shop" or to return/recycle products to where they purchased them. Leveraging this knowledge to maximize waste diversion, Product Care will also seek to partner

with existing businesses, local governments/regional service commissions, and recycling organizations and associations to provide collection services for lamps, including but not limited to:

- Entities or programs that are already collecting lamps
- household hazardous waste programs,
- Product Care's paint collection partners
- other PROs,
- redemption centres,
- retailers,
- private businesses, and not-for-profit organizations.

Regulatory Requirement

39(e): information on service delivery to remote or rural areas

The collection system will aim to provide accessible and convenient service across the province, including remote and rural areas.

To ensure the system meets provincial needs, the Plan will establish an accessibility standard and set accessibility targets within the first two years of implementation. The accessibility standard will guide efforts to recruit collection site partners in remote and rural communities, where there is a willing partner. If permanent sites cannot be established, Product Care will explore collection events as an alternative as per the criteria set out in the accessibility standard.

Regulatory Requirement

39(c): information on the province-wide collection system to be used by the consumer, including return facilities, by category of material

6.1.1. COLLECTION FACILITIES

Product Care recognizes consumer preference for a "one-stop shop" experience where they can drop off more than one type of product for recycling or conduct other activities such as shopping. Focusing on this preference alongside providing collection services in both urban and rural areas will result in higher participation by end-users.

The Plan will not directly own or manage collection sites but rather will contract with existing businesses and organizations that can provide drop-off services in the province.

All return collection sites will accept all categories of materials as described in Table 1. Each site will be listed on Product Care's webpage through the recycling locator with details on their address and hours of operation. Any changes to collection sites will be updated on Product Care's webpage. Annual updates of the Plan's return collection sites will be provided within the annual report.

Collection sites will accept all whole or incidentally broken lamps. Collection sites will not accept intentionally crushed lamps (i.e., those crushed by a drum-top crusher, or a bulb crusher) instead, the program will provide alternative collection services for them, on request (see 6.1.4 Collection of Intentionally Crushed Lamps). Sites will have the flexibility to accept varied amounts of bulbs depending on the space capability of their site at the time. To ensure collection sites have the capacity to continuously accept lamps, collection sites are advised to schedule the pickup of lamps when containers are half to three-quarters full. This will allow collection containers to be delivered prior to the collection site reaching capacity. In the event a collection site reaches capacity prior to the scheduled pickup, the program is able to quickly courier out additional collection containers.

Product Care currently has a province representative that supports the Program, stakeholders, and its service partners, including collection sites and transporters. Product Care will commit to transitioning the province representative, no later than three years after program plan approval, to a bilingual individual, as required by Recycle New Brunswick.

6.1.2. COLLECTION EVENTS

If a community is deemed underserved based on the Plan's accessibility standard and targets, and a permanent collection facility is not feasible, Product Care will aim to provide services through one-day collection events. Where feasible, events will accept one or both categories of materials. The number, location, and frequency of these events will be determined annually based on identified gaps in the permanent collection system, community interest, and expected collection volumes.

6.1.3. COLLECTION OF LARGE VOLUMES OF LAMPS

In addition to collection facilities, the program will provide a free direct pick-up service for large volume generators ("LVGs") of both categories of material, on a combined basis, subject to minimum quantities. Large volume generators are entities/companies that generate commercial quantities of lamps.

6.1.4. COLLECTION OF INTENTIONALLY CRUSHED LAMPS

Intentionally crushed lamps (such as those crushed by a drum-top crusher or bulb crusher) will not be accepted at collection facilities due to the additional regulatory requirements for the management of hazardous materials. The Plan will service intentionally crushed lamps, for both categories of material, on a combined basis, through direct pick-up services, similar to LVG service. To arrange a free pick-up service, a request must be made to Product Care, and transport will be dispatched.

Regulatory Requirement

39(a): information on the storage, collection, transportation, recycling, processing, disposal and other handling of designated material waste, including the designated material waste of other producers

39(d): the location of storage, recycling, processing, disposal and other handling facilities for designated materials

6.1.5. COLLECTION, CONSOLIDATION, AND TRANSPORTATION

A safe, reliable, and efficient system for the collection, storage, transportation, and processing of lamps, regardless of brand or producer will be administered through this Plan. Product Care will ensure its collection system complies with all requirements provisioned by New Brunswick's Department of Environment and Local Government on the handling and transport of hazardous materials, including mercury-containing lamps.

Collection

- Standard Containers: All collection sites, large volume generators (LVGs), and collection events will be supplied with standardized collection containers, such as cardboard boxes and plastic liners of various sizes to collect whole lamps.
- Intentionally crushed lamps are required to be contained in a securely closed metal drum and Product Care will provide replacement drums as necessary.
- Secure Storage: Collection sites are required to store containers securely, ensuring they are inaccessible to the public when the site is closed and protected from the weather.

Transportation

A safe and efficient transportation system is critical to the program's success. Key elements include:

- Regular Pick-ups: Contracted transporters will visit collection sites, as required, to pick up full containers and deliver empty ones, along with any necessary supplies.
- Consolidation facilities: The Plan may utilize consolidation facilities for temporary storage and to maximize transportation efficiencies by shipping full loads to the processor.

The Plan will track the number of lamps collected for reporting to Recycle NB. Sorting and unit counts of material collected will be performed and tracked at the time of material processing. The data sets will form the basis for reporting and management purposes.

Product Care will contract with service providers to fulfill transport, consolidation, and temporary storage needs of the Plan, as detailed in Table 2. Product Care will notify Recycle NB within 10 business days of any changes to transportation or storage service providers.

Table 2: Primary Transporters, Consolidators, and Temporary Storage Information (subject to change)

Material	Transporter, Consolidator, and Temporary Storage Company	Location
Lamps	MBW Courier	Moncton, NB
Lamps	GFL Environmental	Sussex, NB

6.2. MANAGEMENT OF LAMPS

Regulatory Requirement

39(a): information on the storage, collection, transportation, recycling, processing, disposal and other handling of designated material waste, including the designated material waste of other producers

39(d): the location of storage, recycling, processing, disposal and other handling facilities for designated materials

39(h): a management plan for designated material waste, by category of material, according to the following order of preference:

(i) reuse of the designated material;

(ii) recycling or composting of the designated material;

(iii) recovery of energy produced by the designated material; and

(iv) disposal of the designated material in accordance with the Act

39(o): a dispute resolution process to deal with disputes between a producer and a service provider

6.2.1. REUSE, RECYCLING, RECOVERY, AND DISPOSAL

Product Care is committed to managing both categories of material, on a combined basis (see section 5.1) according to the waste management hierarchy outlined in section 39(h) of the Regulation. The approach depends on factors such as product composition, availability of appropriate recycling technologies, qualified service providers, economies of scale, transportation and processing costs, end-market demand for recovered materials, and global market conditions.

Product Care works closely with its service providers to ensure that, where feasible, both categories of material, on a combined basis are managed in alignment with the preferred hierarchy of handling methods. The following outlines the management strategies for lamps and may be updated as new options become available:

Reuse

The Plan is designed to manage end-of-life lamps that are no longer functional. Therefore, both categories of material collected through the Plan will not be reused.

Recycling

At lamp processing facilities, collection containers for both categories of material, on a combined basis are opened, lamps are sorted, counted, and processed. All lamps are carefully broken down into their component materials in a controlled environment:

- **Material Separation**: Hazardous residuals such as mercury phosphor powder are safely removed during processing. Other components, such as glass, ceramics, plastics, and metals, are separated and prepared for recycling.
- **Recovered Materials**: Recyclable materials such as glass, ceramics, plastics, and metals are used in various applications, including metal smelting, construction fill, and sandblasting. All processed glass is tested to ensure mercury levels are below regulatory limits and meet acceptance criteria for downstream applications.
- **Mercury**: While recycling technologies exist for mercury and mercury phosphor powder, the absence of a viable end market in Canada has meant that most recovered mercury is exported to the United States. However, the U.S. export ban on mercury, combined with limited domestic demand for mercury, has resulted in an oversupply in the U.S. market. These conditions have limited the viability of recycling mercury, necessitating alternative disposal methods.

Energy Recovery and Disposal of Non-Mercury Commodities

The program strives to recycle as many of the output commodities as possible. However, in instances where certain materials cannot be recycled, such as certain grades of plastic or integrated materials where the components cannot be sufficiently mechanically separated, specialized disposal methods such as energy recovery or landfill may be required.

Long-Term Storage and Disposal of Mercury

During processing, mercury-containing components, including mercury phosphor powder from CFLs, fluorescent tubes, and HIDs are captured and managed by specialized waste management companies:

- **Mercury Phosphor Powder**: Treated chemically by retorting the mercury from the phosphor powder, then reacting the mercury into mercury sulfide (cinnabar) or physically to render it non-hazardous, then sent to secure landfills,
- **Liquid Mercury**: Stabilized through chemical treatment by reacting the mercury into mercury sulfide (cinnabar) to render it non-hazardous, then sent to secure landfills.

The management options described above in this section are subject to change depending on conditions outside the control of the Plan, such as vendor closures, commodities markets, etc. In the event of any changes to the management options as described above, an application for an amendment under section 42(2) of the regulation will be made to Recycle NB.

6.2.2. PROCESSORS AND DOWNSTREAM FACILITIES

After collection, both categories of material, on a combined basis are transported directly to the processor or a consolidation facility. From the consolidation facility, they are sent to the primary processor in Nova Scotia, as no recycling facilities for these products currently exist within New Brunswick. The Plan may add additional processors in the future as needed.

Processors and Downstream Facilities

Before becoming an approved Product Care processor for both categories of material, an audit process is completed to verify that the processor and its downstream processors meet Product Care's Lamp Processor Standard (see Section 6.3 for further information). All lamps collected and managed through the Plan are required to be sent only to approved downstream processors.

At the primary processing facility, all collected lamps are broken down into their component materials through a combination of manual and mechanical processing:

- **Sorting and Staging**: Workers sort lamps by type and stage them for mechanical processing.
- **Mechanical Processing**: Lamps are processed using a machine specifically designed and engineered for processing lamps that crushes the lamps and separates their components, under a controlled environment that prevents the release of hazardous contaminants.

- **Material Separation**: Glass, metal, plastic, ceramics, mercury, and phosphor powder are separated as part of the mechanical processing.

Any cardboard or plastic incidentally collected during operations will also be managed by the primary processor and sent to appropriate downstream facilities for recycling.

Downstream Processing

All materials recovered through the primary processing facility are sent to pre-approved downstream processors for further management, including recycling, recovery, or disposal.

Facility Locations and End-Fate

Tables 3 to 4 detail processing facilities, management options, and locations.

Processing options and facility locations may change due to market conditions or the availability of recycling solutions. Product Care will notify Recycle NB within 10 business days of any change in service providers. While the tables reflect identified service providers, some of the listed facilities may not ultimately be used under the Plan.

Table 3: Primary Processing Site Information

Material	Primary Processing Site Name	Primary Processing Site Location
Lamps	Dan-X Recycling	Dartmouth, NS
Lamps	GFL	Sussex, NB

Table 4: Downstream Materials Processing Locations and End-Fate

Material	Sub-Component	Downstream Processing	End-Fate	Downstream Processor or Contractor	Downstream Processor or Contractor Location
Lamps	Phosphor Powder	Chemical treatment, stabilization	Securely landfilled	Aevitas to Stablex facility	Blainville, QC
	Liquid Mercury	Chemical treatment, stabilization	Securely landfilled	Aevitas to Stablex facility	Blainville, QC
	Metal	Physical treatment	Recycled	Dartmouth Metals	Dartmouth, NS
	Glass	Physical treatment	Recycled	Verhagen Demolition Ltd.	New Glasgow, NS
	Plastic	Physical treatment	Recycled	C&D Recycling	Dartmouth, NS

Material	Sub-Component	Downstream Processing	End-Fate	Downstream Processor or Contractor	Downstream Processor or Contractor Location
	Ceramics	Physical treatment	Recycled	Verhagen Demolition Ltd.	New Glasgow, NS
Collection container packaging	Cardboard	Physical treatment	Recycled	Regroup Recycling	Halifax, NS
Collection container packaging	Plastic	Physical treatment	Recycled	Halifax C&D Recycling Ltd.	Halifax, NS

Dispute Resolution

Product Care contracts with service providers by way of commercial agreements. These agreements include built-in dispute-resolution mechanisms. For disputes that arise related to the collection and management of lamps during the operation of the Plan, Product Care's dispute resolution procedure follows normal commercial dispute resolution practices, including:

- Discussion between the service provider and Product Care manager
- If necessary, escalation of discussion to Product Care senior staff
- If necessary, escalation of discussion to Product Care board
- If necessary, undertaking legal proceedings, including the option of mediation or binding arbitration, with the consent of the parties.

The first two procedures can be conducted with the consent of both parties, via conference call and/or video conferencing.

6.3. ENVIRONMENTAL, HUMAN HEALTH, AND SAFETY RISK MANAGEMENT

Regulatory Requirement
39(l): a management plan for designated material waste, by category of material, which shall provide for the implementation of environmental and human health and safety standards, which shall meet or exceed those provided by applicable law

Product Care is cognizant of the need to minimize the potential of incidents that impact environmental and human health. Subsequently, Product Care diligently works with its partners (collection sites, transporters, and processors) to ensure compliance with environmental and safety regulations and the application of best environmental and safety practices with respect to collection, transportation, and processing of both categories of material.

Product Care staff will provide ongoing support to the collection network, ensuring that site staff have the proper information, tools, and resource materials to safely operate.

Product Care's environmental risk management system, for all categories of materials, includes:

- System-wide shipping documentation and tracking system
- Due diligence reviews of collection sites, transporters and processors to ensure compliance as well as tracking system verification

- Requirements for detailed volume tracking and reporting, inventory control, and use of only established, reputable processors
- Requirements for service providers to hold appropriate licenses, certifications, or permits where applicable.
- Lamp Processing Standard for processors
- Development of best management practices, including training, reporting and guidelines etc. for collection sites and transporters
- Maintaining an environmental impairment insurance policy

Lamps are used daily and are considered safe under normal conditions of use. Many lamps being collected, transported, and processed by the Plan are composed of inert glass material and metal, with the main safety risk being breakage of the glass. Product Care's handling and packing procedures, including containers, are designed to minimize the risk of breakage during handling and transportation. A copy of Product Care's NB Collection Facility Guidelines (see Appendix B) is attached to this Plan for reference purposes only and does not form part of the Plan itself. The most current version of the guidelines is available online on Product Care's Service Partner Dashboard at www.productcare.org/service-partners/resources/. Please note that the guidelines are subject to change.

To minimize risks, all lamps must be packaged in containers lined with thick plastic. The plastic liners and containers are then required to be tightly secured. Additionally, contractors must follow breakage procedures, with breakage kits provided by Product Care. Unbroken mercury-containing bulbs pose no health or environmental safety risk. However, in the event of a breakage, Product Care's guidelines for collection sites will outline careful clean-up procedures to ensure safety.

Product Care adheres to "The code of practice for the Environmental Sound Management of End-of-Life Lamps Containing Mercury" (ECCC, 2017), for processing lamps, and to ensure material is managed in a manner safe for both environmental and human health. However, this code may evolve over time, and where applicable, Product Care will apply more current practices through its own Lamp Processing Standard ("Standard"). The Standard reflects industry best practices to ensure proper and safe recycling of lamps. A copy of the Standard (see Appendix C) is attached to this Plan for reference purposes only and does not form part of the Plan itself. The most current version of the guidelines is available online on Product Care's Service Partner Dashboard at www.productcare.org/service-partners/resources/. Please note that the Standard is subject to change.

Lamp processors are required to conform to the Standard, which defines the minimum requirements to operate as an approved Product Care processor, including managing materials in accordance with all federal and provincial regulatory requirements.

The Standard also sets out environmental, occupational health and safety, and material handling rules to ensure materials are managed appropriately. The final use (end fate) of materials is considered when selecting processors. Processors are audited to ensure they are operating in accordance with the Standard.

Product Care's processors utilize specifically designed and engineered equipment that safely processes both mercury-containing and non-mercury-containing lamps at the same time.

As previously mentioned, the only potential environmental hazard associated with lamps comes from mercury, which is only in HIDs, CFLs, and some fluorescent lamps. Mercury in most lamp technologies is generally present in very low volumes, except for HIDs. Product Care's collection facilities, transporters, and processors follow careful handling and packaging procedures to prevent exposure of harmful quantities of mercury to both people and the environment. Therefore, the risk of an environmental emergency is minimal. However, in the event of an environmental emergency involving Product Care's service providers, Product Care will follow Recycle NB's Emergency Reporting Clause and immediately notify, whether during regular business hours or after hours, Recycle NB and the New Brunswick Department of Environment. Service providers include but are not limited to contracted collection sites, transportation companies, and processing facilities.

7. DESIGN FOR ENVIRONMENT

7.1. PRODUCER EFFORTS TO REDUCE WASTE IN PRODUCT LIFECYCLE

Regulatory Requirements

39(i): a description of the efforts being made by the producer to redesign designated materials to improve opportunities for reuse and recycling

39(j): information on current and future research and development activities in the Province related to the management of the designated material

39(m): a plan for the elimination or reduction of the environmental impacts of designated material waste, by category of material

The Plan's objective is to reduce the environmental impact of used lamps through the application of the pollution prevention hierarchy of reduce, reuse, recycle. The Plan fulfills end-of-life management requirements but has little influence on the front-end design of lamps which is dictated by other market forces such as energy-saving requirements, regulatory requirements, consumer demands, etc.

Although the Plan does not have a direct hand in the design of lamps, feedback from lighting producers indicates they are actively reducing environmental impact through innovative design and technology, emphasizing durability, reusability, and recyclability across the product lifecycle. The adoption of energy-efficient technologies like LEDs has revolutionized the industry, slashing energy use and fostering sustainability.

Here are some trends reflecting environmental sustainability within the lighting industry for all categories of materials:

Market-Driven Transition to More Energy-Efficient Lighting Technologies

The adoption of new lighting technologies has led to significant environmental and economic benefits, as demonstrated by various life cycle assessment studies. Historically, the use phase of older lighting products has accounted for 80–90% of their total environmental impact, primarily due to high energy consumption. By transitioning to advanced technologies, the lighting industry is effectively reducing electricity usage and mitigating pollution associated with energy generation.

Traditional incandescent bulbs convert only about 10% of energy into light, with the rest lost as heat, presenting major opportunities for efficiency gains. Compact Fluorescent Lamps (CFLs) improved efficiency by about 70% over incandescent bulbs but contain mercury, raising disposal concerns. The industry now favors Light Emitting Diode (LED) technology, which is up to 85% more efficient, mercury-free, and significantly longer-lasting.

Regulation-Driven Transition to Non-Mercury-Containing Lighting Technologies

Recent federal regulations under the Canadian Environmental Protection Act (CEPA) have been set out to prohibit the sale of most lamps containing mercury. The regulatory deadlines are scheduled to come into force in the coming years and as a result, the lighting industry is not seeking to invest in and amend the design of such lamp technologies. This shift away from mercury-containing lamps will reduce the increased health and environmental considerations associated with the manufacturing and end-of-life management of this lamp technology.

Shift in Industry Trend towards More Durable Products

In recent years, the lighting industry has shifted its focus from traditional lighting technologies to the development and adoption of energy-efficient and long-lasting lamp technology. As an example, the advancement of LED lighting technology is having a significant impact on the lighting market. Manufacturers are now focusing their efforts on this type of product, and are no longer spending research energy on expanding any of the traditional product lines, such as fluorescent, HID, incandescent, or halogen.

LEDs (Light Emitting Diodes) stand out due to their durability and positive environmental impact. Consider the following:

- **Lifespan**: LEDs boast an impressive lifespan of approximately 15,000-25,000 hours, far surpassing CFLs, incandescent bulbs, and halogen lamps (with average lifespans of 8,000 hours, 1,000 hours, and 3,000 hours, respectively).
- **Reduced Replacement Frequency**: The increased lifespan of LEDs translates to fewer replacements, minimizing the need for new bulbs and lamps. Consequently, this reduces the associated environmental impact related to manufacturing and end-of-life management.
- **Mercury-Free and Energy Efficiency**: LEDs are mercury-free and highly energy-efficient, making them an attractive choice. The industry is actively pushing for further integration of LEDs into fixtures.

Lighting as a Service (LaaS)

Beyond LED efficiency, the lighting industry embraces the "Lighting as a Service" (LaaS) model to optimize energy consumption. LaaS involves integrating and managing lighting systems as part of facility management. Intelligent controls collect data, enabling efficient lighting control based on occupancy, activity patterns, and daylight levels. This strategic approach contributes to improved energy and carbon management performance.

Developing a Circular Economy in the Lighting Industry

The lighting industry actively implements product design strategies rooted in circular economy principles, promoting a more sustainable and environmentally friendly approach. Here are the key initiatives:

1. Enhancing Reusability:

- Lighting product manufacturers prioritize increasing the reusability of their products. By creating items that can be upgraded for different purposes, they reduce the need for consumers to purchase new products. This shift contributes significantly to minimizing the environmental impact associated with frequent replacements.
- Additionally, producers focus on designing products with easily replaceable parts, such as drivers, controls, and LED boards. These improvements not only enhance product durability but also facilitate disassembly and recycling.

2. Packaging Waste Reduction:

- Lighting companies are actively redesigning their packaging to minimize waste. Innovative packaging design and technology allow them to achieve this goal while maintaining the necessary protection for their products.
- Sustainable materials, including those with recycled content or bamboo, are increasingly used in packaging. These choices further reduce the environmental footprint associated with packaging materials.

The lighting industry is a consolidating industry, and most producers manufacture for a market area that includes more than one province or country.

Product Care is not aware of any current research and development activities in the province related to the management of lamps. Nevertheless, Product Care is open to exploring opportunities with provincial stakeholders as they emerge.

In summary, the lighting industry is transitioning to more sustainable practices by embracing energy-efficient technology, phasing out traditional lighting technologies, adopting low-impact service models, and focusing on reducing product impact and improving reusability and recyclability. These efforts are not only promoting a more sustainable future but also driving innovation in the industry.

7.2. GREENHOUSE GAS (GHG) EMISSIONS

Regulatory Requirement(s)
39(n): a description of greenhouse gas emissions resulting from the implementation of the stewardship plan and opportunities to reduce environmental impact

Lamps have environmental impacts throughout their lifecycle, from the extraction of raw materials such as metals, glass, and phosphor, to the production of components like aluminum, glass, and ceramics, and the

creation of packaging. Recycling lamps reduces these impacts by replacing the energy-intensive extraction and processing of virgin materials with recycled ones.

While efforts to reduce GHGs are a priority, considerations must be given to fact that the regulation requires the establishment of a collection system, transportation and proper management of collected lamps. These requirements and the resulting activities will naturally generate GHGs.

Although certain environmental impacts may be reduced, the implementation of the Plan may lead to increased GHG emissions from activities such as:

- Transportation of end-of-life lamps from collection facilities or collection events to consolidation hubs and processors;
- Transportation of supplies from consolidation hubs to collection facilities and events (e.g. collection supplies, spill kits, signage);
- Mechanical and chemical processes used to recycle lamps or disposal of certain outputs;
- Transportation of sorted and processed materials to facilities utilizing the raw materials for reuse in new products.

Product Care actively works to minimize the greenhouse gas emissions of lamp recycling by:

- Leveraging existing facilities to minimize generation of GHG from construction activities of new collection sites.
- Maximizing transportation load management; including utilizing contractors that work to improve efficiencies through technologies that optimize collection routes, and logistics for consolidating, transferring, and processing lamps and their components, especially where fossil fuels power these systems.
- Coordinating with local governments on their collection events to include lamps where possible.
- Supporting local recycling markets where available and offering equal or better environmental and of economic value.
- Where possible by choosing recycling processes that:
  - Maximize the recovery of materials
  - Minimize the consumption of non-renewable energy.

However, opportunities to reduce GHG emissions are expected to be limited, given the current regulatory and operational context:

- Processing activities inherently generate emissions, and with only a small number of specialized processors available to handle mercury-containing lamps, there is little to no flexibility in selecting lower-emission alternatives.
- Transportation requirements are driven by accessibility obligations under the regulation, which necessitate a dispersed collection network and long-haul transport to consolidation and processing facilities, activities that inherently contribute to GHG emissions.
- The program's low product volumes and absence of economies of scale reduce the feasibility of investing in alternative technologies, such as electric transport or local processing infrastructure.
- The inability to achieve economies of scale limits the program's ability to adopt lower-emission logistics options, particularly in jurisdictions like New Brunswick where transportation markets and service providers are limited.

To meet the requirements of Section 39(n) of the Regulation, Product Care will develop a framework within the first two years of program implementation to describe the greenhouse gas emissions associated with program activities and to assess whether any opportunities for reduction exist, given the regulatory and operational context. This framework will define the scope of emissions and the methodology used, including frequency, calculations, and format of future reporting.

8. COMMUNICATIONS AND PUBLIC AWARENESS

Regulatory Requirement(s)
39(k): a communications plan to inform consumers about the stewardship plan, including

(i) information concerning reasonable and free access to a method of collection, and

(ii) a plan for education and awareness;

The Communications Plan includes strategies for information-sharing with consumers, outlining key messaging, channels, and measurement.

The Communications Plan considers the diversity of the province, ensuring outreach efforts address the unique needs of English and French-speaking communities, as well as urban and rural populations. By tailoring communication strategies to reflect this diversity and by working with other key stakeholders where synergies exist, the program aims to maximize engagement across New Brunswick.

In support of continuous improvement, transparency, and coordination, Product Care will also submit an Annual Communications Plan to Recycle NB by December 31, outlining the tactics planned for the upcoming calendar year. The first Annual Communications Plan will be submitted by December 31 of the first year of the Plan's implementation, for the following year's activities.

Product Care is committed to working in partnership with Recycle NB to ensure consistency in communication for the benefit of all stakeholders. As requested by Recycle NB, educational and promotional materials for the Plan will be submitted to Recycle NB for approval and review at least 15 business days prior to release. All educational and promotional materials such as print, TV, bus, or radio ads, will feature Recycle NB's logo or be accompanied by a message that the campaign has been approved by Recycle NB (in the case of radio ads).

Although the Designated Materials Regulation does not specify requirements for stewardship plans to provide educational and promotional materials in both official languages of the province, and the Official Languages Act does not require not-for-profit organizations to meet language requirements unless they are providing services on behalf of the Government of New Brunswick, Product Care will provide educational and promotional materials in both official languages.

To support program success, the Communications Plan includes clear objectives that guide the development of outreach and education strategies. The following objectives will shape communication efforts throughout the duration of the program:

8.1. COMMUNICATIONS PLAN OBJECTIVE 1 - RAISE CONSUMER AWARENESS ABOUT THE RECYCLABILITY OF LAMPS IN NEW BRUNSWICK

Strategy 1: Information Hub

Product Care operates an online information hub—productcare.org—to serve as a digital destination for the Plan's diverse stakeholder groups, including producers, consumers, and service partners.

- The website is a valuable tool used by the Plan to satisfy Section 39(k)(i) of the Regulation, as it will provide information concerning reasonable and free access to a method of collection for the public and educational content to inform consumers about accepted product types. The website will include: A recycling locator, with the address and operating hours of participating collection sites and other collection services
- Detailed descriptions of both accepted and not-accepted products
- Details on applicable environmental handling fees
- Answers to Frequently Asked Questions (FAQs)
- Contact information (phone and email)
- A link to Recycle New Brunswick's Lamps (Lightbulbs) Recycling page

Strategy 2: Advertising Campaigns

Advertising campaigns will be undertaken to increase the general knowledge and understanding of the recyclability of lamps. Given the ubiquity of lamps in modern households, a broad, widespread approach to audiences will be undertaken. Similarly, utilizing multiple channels will enable us to capture a range of demographics.

AUDIENCE	- General public - Ages 18+ - French speakers and English speakers - Urban and rural markets as applicable
KEY MESSAGING	- Lamp products can be recycled and materials reused - The Plan's collection network should be used instead of disposing of lamps through the garbage since disposal raises landfill volumes and creates potential negative environmental impacts - Clarification on the type of lamps that are included in the Plan and what products are not - Information concerning reasonable and free access to the nearest collection site
KEY PERFORMANCE INDICATORS (KPIS)	- Reach - Impressions - Views
PRIMARY CHANNEL(S)	Traditional channels may include: - Linear television - Print: Bus wraps, billboards, etc. Digital channels may include: - Online television - Social media platforms - Paid Google advertisements and SEO campaigns

Strategy 3: Print Materials

Physical materials will be distributed to collection sites, to be made available to visitors. These existing 'recyclers' present an optimal audience given their existing behaviour and interest in recycling. Print assets will aim to educate consumers on accepted lamps and direct them to the information hub for further details. All educational and promotional print assets will be available in French and English and will include the Recycle NB logo.

8.2. COMMUNICATIONS PLAN OBJECTIVE 2 - INFLUENCE CONSUMER BEHAVIOUR TO RECYCLE LAMPS

Strategy 1: Digital Advertising Campaign

The Plan will leverage digital channels to reach consumers who currently have quantities of unwanted lamps in their homes and are uncertain about disposal. Reputable digital platforms, like Google, utilize consumer search history to provide relevant advertisements, enabling us to hyper-target consumers at the point of decision-making.

AUDIENCE	- Consumers, users of product - Ages 18+ - French and English speakers - Urban and rural markets as applicable
KEY MESSAGING	- Location and accessibility of collection sites across NB - Convenience of drop-off process - Clarification on types of lamps accepted by program - Transparency into recycling process – circularity of materials

	- Information concerning reasonable and free access to the nearest collection site
KEY PERFORMANCE INDICATORS (KPIs)	- Conversions (clicks) - Website traffic
PRIMARY CHANNEL(S)	Digital channels may include: - Online television - Social media platforms (YouTube, Meta, etc.) - Paid Google advertisements and SEO campaigns

8.3. MEASUREMENT AND CONTINUOUS IMPROVEMENT

Communication activities promoting the program will benefit from a continuous review of their efficacy and long-term viability.

Consumer Awareness Surveys

Utilizing a reputable third-party research firm, Product Care will conduct a consumer awareness survey every two years to gauge the effectiveness of communication efforts. The surveys will be representative of the entire adult population of New Brunswick and its demographic and geographical distribution.

The first survey for the Plan will be conducted in 2026, establishing a baseline figure. Insights from the survey will be incorporated into future communication strategies.

9. AUDITING MECHANISMS

Regulatory Requirement(s)
45(1)i: the annual financial statements, as prepared by an independent auditor, of the revenues received and the expenditures incurred in connection with the stewardship plan

In each annual report, Product Care will provide the annual financial statements of the revenues received and the expenditures incurred through the Plan, as prepared and signed by an independent auditor.

10. PERFORMANCE MEASURES AND TARGETS

10.1. PERFORMANCE MEASURES

Regulatory Requirement(s)
44(1): Each producer that is subject to a stewardship plan shall submit to the stewardship board for approval one or more performance measures and targets, by category of material, that the producer will use to assess the effectiveness of the plan.

44(3) The performance measures and targets shall be submitted: (a) in the case of a producer's first plan, within two years following its implementation under section 43

In accordance with Section 44(3) of the regulation, Product Care will submit performance measures and targets, by category of material, within two years following the Plan's implementation date under Section 43.

Plan performance for lamps is influenced by a wide range of factors, including the vast number of lamp types, varying product life spans depending on manufacturers and consumer usage, and changing market conditions and behaviors. These factors make it difficult to establish precise or accurate performance metrics. As a result, traditional performance measures can be misleading and do not reflect the realities of lamp recycling. Performance evaluation should instead rely on a combination of metrics, such as awareness and accessibility, and focus on trends observed over time rather than predetermined absolute targets.

Waste Composition Audits

To support evaluation of the Plan's effectiveness in diverting all categories of materials from landfill, Product Care commits to participating in waste composition audits where appropriate. These audits will be undertaken in collaboration with the Province, Recycle NB, and other stewardship organizations. However, given the logistics,

scope, and costs involved, it is important to retain flexibility regarding the number, timing, and methodology of such audits.

Accessibility

The Plan's collection system will deliver accessible and convenient service across the province for all categories of materials. The Plan will introduce an accessibility standard and set targets within the first two years of implementation. It is important to note that the establishment of such targets will need to account for factors such as regional population density, service provider availability, and historical collection volumes.

Consumer Awareness

The Plan will conduct its initial consumer awareness survey, for all categories of materials on a combined basis, in 2026 to establish a baseline awareness level in the province. Thereafter, the Plan commits to conducting biennial awareness surveys. Following each survey, the communications plan will be reviewed and re-evaluated. Upon establishing the baseline awareness level in 2026, the Plan will determine an awareness target for future surveys.

Regarding consumer awareness levels, it is important to note that lamp technology is at a significant turning point. Integrated lamps and long-lasting technologies, such as LEDs, are now commonplace. Unlike a decade ago, when lamps burned out frequently and consumers routinely purchased and disposed of them, today's longer-lasting lamps result in less frequent consumer engagement at both the point of sale and disposal. This shift in technology reduces the "top of mind" nature of the product.

Currently, no data exists to forecast how this shift from a fast-moving consumable to a durable consumable will impact awareness levels of end-of-life lamp recycling options.

10.2. SUBMISSION OF PLAN TARGETS

Targets for the Plan's performance for all categories of material will be submitted to Recycle NB within two years of the Plan's implementation date.

11. ANNUAL REPORT REQUIREMENTS

11.1. COLLECTION DATA REPORTING

Regulatory Requirement(s)
39(f): the geographic areas to be used for the purposes of the annual report

Product Care will utilize collection data organized by geographical areas that align with the 12 Regional Service Commissions (RSC) for the purposes of the annual report.

Regional Service Commissions:

- Northwest Regional Service Commission (RSC 1)
- Restigouche Regional Service Commission (RSC 2)
- Chaleur Regional Service Commission (RSC 3)
- Acadian Peninsula Regional Service Commission (RSC 4)
- Greater Miramichi Regional Service Commission (RSC 5)
- Kent Regional Service Commission (RSC 6)
- Southeast Regional Service Commission (RSC 7)
- Kings Regional Service Commission (RSC 8)
- Fundy Regional Service Commission (RSC 9)
- Southwest New Brunswick Service Commission (RSC 10)
- Capital Regional Service Commission (RSC 11)
- Western Valley Regional Service Commission (RSC 12)

11.2. ANNUAL REPORT COMMITMENTS

Table 5 outlines the metrics that will be used to track the Plan's performance for all category of materials. As required by Section 45(1) of the Regulation, the Plan will report on each of the following performance measures on an annual basis for the previous calendar year by May 31st.

Table 5: Annual Performance Measures and Reporting Commitments

Performance/Reporting Measures	Reporting Commitment	Regulation
Lamps sold	Report annually on total estimated units sold, by the following category of materials: Category 1 – Non-MCLs Category 2 – MCLs	*45(2)* *at the same time a producer submits its annual report, the producer shall provide to the stewardship board a statement in writing specifying the total amount of designated materials, by category of material, distributed by the producer during the previous calendar year or during the period approved by the stewardship board*
Lamps collected	Report annually on the total estimated units of lamps collected, by the following category of materials: Category 1 – Non-MCLs Category 2 – MCLs	*45(1)(a)i)* *the total amount of designated material waste, by category of material, collected:* *(i) in the Province, or* *(ii) in the geographical areas specified in the stewardship plan;*
	Report annually the total estimated units of lamps collected by Regional Service Commission by the following category of materials: Category 1 – Non MCLs Category 2 – MCLs	
Collection sites	Report annually on the number, type and location (community and Regional Service Commission) of contracted collection sites for all categories of materials on a combined basis.	*45(1)b)* *a description of collection systems used and the location of return facilities, if any;*
Collection events	Report annually on the number and location of collection events for all categories of materials on a combined basis.	
End fate management	Report annually on the amount of designated material waste, by category of material, that was reused, recycled, composted, recovered for the purposes of energy, stored, processed, disposed of or otherwise handled for both Category 1 (non-MCLs) and Category 2 (MCLs), as a combined total. See Section 6.2.2 for further explanation, as both categories are managed using the same processing methods and end fate.	*45(1)c)* *the amount of designated material waste, by category of material, that was reused, recycled, composted, recovered for the purposes of energy, stored, processed, disposed of or otherwise handled;*
End fate processes	Report annually a description of the end fate processes used to manage lamps for both Category 1 (non-MCLs) and Category 2 (MCLs), as a combined description. See Section 6.2.2 for further detail, as both categories are processed using the same methods and managed through the same end fate processes.	*45(1)d)* *a description of the types of processes used to reuse, recycle, compost, recover energy from, store, process, dispose of or otherwise handle designated material waste, by category of material;*

Performance/Reporting Measures	Reporting Commitment	Regulation
End fate facilities	Report annually the location of any storage, processing, or handling facilities for all types of materials.	*45(1)e)* *the location of any storage, processing or handling facilities for designated material waste;*
Design for environment	Report annually on the efforts to redesign all types of materials on a combined basis to improve opportunities for reuse and recycling, for all categories of materials.	*45(1)f)* *a description of the efforts to redesign designated materials to improve opportunities for reuse and recycling, by category of material;*
Consumer awareness	Report annually on the types of consumer information, educational materials and strategies undertaken by the Plan for all categories of material on a combined basis.	*45(1) g)* *the types of consumer information, educational materials and strategies adopted by the producer;*
Consumer awareness survey	Conduct a consumer awareness survey for all types of material on a combined basis every two (2) years, starting in 2026.	*45(1) g)* *the types of consumer information, educational materials and strategies adopted by the producer;*
Program website visits	Report annually on user visits to the program's website.	*45(1) g)* *the types of consumer information, educational materials and strategies adopted by the producer;*
Plan assessment	Once Recycle NB approves the performance measures and targets, the Plan's effectiveness will be assessed annually against these criteria and reported accordingly. No assessment is required in the years prior to their approval.	*45(1)h)* *an assessment of the effectiveness of its stewardship plan against the performance measures and the targets that were approved or imposed by the stewardship board;*
Financial statements	Report annually the audited financial statements of the annual statement of revenues and expenses incurred in connection with the stewardship plan for all types of material on a combined basis.	*45(1)i)* *the annual financial statements, as prepared by an independent auditor, of the revenues received and the expenditures incurred in connection with the stewardship plan;*

APPENDIX A – LIST OF PRODUCERS

The following is a list of producers (as of October 17th, 2025) that have designated Product Care as the third party to operate the New Brunswick Lamp Stewardship Plan on their behalf. An updated list of producers will be submitted to Recycle NB on the start date of the Plan.

Company Name	Address
Acklands - Grainger Inc.	210-25 Forks Market Road Winnipeg, MB R3C 4S8 Canada
Arteriors Home	1901 Midway Rd, Suite 100 Lewisville, TX 75056 United States
Arani Systems Corp.	2555 Rue Leger, LaSalle, QC H8N 2V9 Canada
BEGA North America	1000 BEGA Way, Carpinteria, CA 93013 United States
BenQ Canada Corp	3-1750 The Queensway, Suite 1265 Toronto, ON M9C 5H5 Canada
Cambridge Agencies Limited	2040 rue Onesime-Gagnon Lachine, QC H8T 3M8 Canada
Canadian Tire Corporation, Limited	2180 Yonge Street, 11th Floor (south) Toronto, ON M4P 2V8 Canada
Christie Digital Systems Canada Inc.	809 Wellington St. N Kitchener, ON N2G 4Y7 Canada
Conglom Inc.	2600 Ave Marie Curie St. Laurent, QC H4S 2C3 Canada
Costco Wholesale Canada Ltd.	415 West Hunt Club Rd Ottawa, ON K2E 1C5 Canada
CTG Brands Inc.	123 Great Gulf Drive, Vaughn, ON L4K 5V1 Canada
Current Lighting Solutions Canada Inc.	1940 Onesime-Gagnon Lachine, QC H8T 3M6 Canada

Company Name	Address
Dell Technologies	155 Gordon Baker Road, Suite 501 North York, ON M3H 2N5 Canada
Dollarama L.P.	5805 Royalmount Ave Montreal, QC H4P 0A1 Canada
Eddi's Wholesale Garden Supplies Ltd.	15030 54A Avenue, Unit 103 Surrey, BC, V3S 5X7 Canada
Eddie Bauer of Canada Corporation	2200 1st Ave S., Suite 400 Seattle, WA 98134 United States
EiKO Canada, Limited	7900 Goreway Drive Units 6-8 Brampton, ON L6T 5W6 Canada
Envirogard Products Limited	446 Major Mackenzie Drive East Richmond Hill, ON L4C 1J2 Canada
Fastenal Canada Ltd.	900 Wabanaki Drive Kitchener, ON N2C 0B7 Canada
Giant Tiger Stores Limited	2480 Walkley Road Ottawa, ON K1G 6A9 Canada
Groupe BMR Inc.	1501 rue Ampère suite 200 Boucherville, QC J4B 5Z5 Canada
Guillevin International Co.	6555 boul. Metropolitain Est - Suite 301 St-Leonard, QC H1P 3H3 Canada
Hawthorne Canada Ltd	202-6835 Century Ave Mississauga, ON L5N 7K2 Canada
Home Hardware Stores Limited	34 Henry Street West St. Jacobs, ON N0B 2N0 Canada
Honda Canada Inc.	180 Honda Blvd Markham, ON L6C 0H9 Canada
IKEA Canada Limited Partnership	1065 Plains Rd. E Burlington, ON L7T 4K1 Canada

Company Name	Address
Lawson Products, Inc.	7315 Rapistan Ct Mississauga, ON L5N 5Z4 Canada
LEDVANCE Ltd	5450 Explorer Drive, #100 Mississauga, ON L4W 5N1 Canada
Lenovo (Canada) Inc.	55 Idema Rd, Markham, ON L3R 1B1 Canada
Les Éclairages Électroniques C.B.M. Inc.	82 rue Irwin local 3, Granby, QC J2J 2P1 Canada
Loblaws Inc.	1 President Choice Circle Brampton, ON L6Y 5S5 Canada
Lutron Electronics Canada Inc.	1200 Waterfront Centre, 200 Burrard Street Vancouver, BC V6C 3L6 Canada
Makita Canada Inc.	1950 Forbes Street Whitby, ON L1N 7B7 Canada
Mercedes-Benz Canada Inc.	2680 Matheson Blvd. E, Suite 400 Mississauga, ON L4W 0A5 Canada
Michael Rossy	450 Bd Lebeau Saint-Laurent, QC H4N 1R7 Canada
Mitsubishi Electric Sales Canada	4299 14th Avenue, Markham, ON L3R 0J2 Canada
Mohindru Trading Co Ltd	9409 120th Street Delta, BC V4C 6S2 Canada
Mountain Equipment Company	887 Great Northern Way - Suite 101 Vancouver, BC V5T 4T5 Canada
Musco Sports Lighting Canada Co	600-1741 Lower Water Street, PO Box 997 Halifax, NS B3J 2X2 Canada
Nissan Canada Inc.	5290 Orbitor Drive Mississauga, ON L4W 4Z5 Canada

Company Name	Address
Orgill Canada Hardlines ULC	3232 White Oak Rd London, ON N6E 1L8 Canada
Quality Wholesale Ltd.	101 - 7575 North Fraser Way, Burnaby, BC V5J 4Z3 Canada
RONA Inc.	220 chemin du Tremblay Boucherville, QC J4B 8H7 Canada
Satco Products Inc.	110 Heartland Blvd Brentwood, NY 11717 United States
Scotts Canada Ltd.	202-6835 Century Ave Mississauga, ON L5N 7K2 Canada
Sharp Electronics of Canada	5995 Avebury Road, Suite 900 Mississauga, ON L5R 3P9 Canada
Sonepar Canada Inc	4655, aut. 440 O. Laval, QC H7P 5P9 Canada
Sony Electronics Inc.	16535 Via Esprillo San Diego, CA 92127 United States
Standard Products Inc.	2233 Rue de l'Aviation Dorval, QC H9P 2X6 Canada
Staples Canada	6 Staples Ave Richmond Hill, ON L4B 4W3 Canada
Subaru Canada	560 Suffolk Court Mississauga, ON L5R4J7 Canada
Tanses Technologies inc.	4450 Autoroute 13 Laval, QC H7R 6E9 Canada
Tenaquip Limited	22555 Route Transcanadienne Senneville, QC H9X3L7 Canada
The Home Depot Canada	400-1 Concorde Gate Toronto, ON M3C 4H9 Canada

Company Name	Address
Torre & Tagus Designs Ltd.	11420 Blacksmith Place, 2nd Floor Richmond, BC V7A 4X1 Canada
Toyota Canada Inc.	One Toyota Place Scarborough, ON M1H 1H9 Canada
UAP INC.	2015 Ave Haig Montréal, QC H1N 3E2 Canada
Uline Canada Inc.	3333 James Snow Parkway North, Milton, ON L9T 8L1 Canada
Uni-Select Inc. (Bumper to Bumper)	170 boul. Industriel Boucherville, QC j4b2x3 Canada
Ushio America Inc.	5440 Cerritos Ave. Cypress, CA 90630 USA
Uvalux International Inc.	470 Industrial Ave Woodstock, ON N4S 7L1 Canada
Villa Lighting Supply Inc.	2929 Chouteau Ave St-Louis, 63103-2903 United States
Volkswagen Group Canada Inc.	777 Bayly Street West Ajax, ON L1S 7G7 Canada
Wayfair LLC	4 Copley Place, Suite 7000 Boston, MA 02116 United States
Wesco Distribution Canada LP	500 Hood Rd, Suite 120 Markham, ON L3R 9Z3 Canada
Winners Merchants Int.	60 Standish Ct. Mississauga, ON L5R0G1 Canada
Wurth Canada	345 Hanlon Creek Blvd. Guelph ON N1C 0A1 Canada

APPENDIX B – COLLECTION FACILITY GUIDELINES

New Brunswick Lights Collection Guidelines

September 2025

COLLECTION SITE GUIDELINE REVIEW

After reading the guidelines and any future updates, please indicate so below. By signing below, I confirm that I have reviewed the guidelines effective the date of review and I understand the program's operation and requirements. I am aware of all health and safety requirements with regards to the program, and I understand the acceptance criteria as outlined in these guidelines.

Employee Name	Signature	Date of Review

New Brunswick Lights Collection Guidelines

September 2025

DISCLAIMER

The Collection Site Guidelines ("Guidelines") are intended to provide guidance to operators participating as a collection site in New Brunswick's Lights Program. Agreements or contracts referencing Product Care training, collection site or depot manual, guide, or guidelines are all referring to these guidelines.

The practices described in the Guidelines are not intended to replace any standards, acts or regulations required under Local, Provincial or Federal law; nor are the Guidelines intended to relieve the collection site operator or staff of requirements under the law.

Product Care Association ("Product Care") accepts no responsibility and assumes no liability resulting from the incorrect use of information contained in the Guidelines or from the use of this information in any circumstances other than those described.

Forms provided in the Guidelines may not be current due to changes in processes, regulations and procedures. Updates will be provided to your collection site as required and posted on the www.productcare.org website. Please ensure you are using the most updated version.

The collection site is a place of work regulated by the WorkSafe NB. Further information should be provided by your supervisor.

In addition to the Guidelines, collection sites must comply with all environmental, health and safety regulations to ensure workers are properly trained and equipped for their work and they understand the:

- Hazards they may encounter in their work;
- Safety practices needed to protect themselves from harm; and
- Actions they may need to take in the event of an emergency, such as a spill.

QUICK REFERENCE SHEET

Shipment Requests:

Email: nbopslights@productcare.org
Fax: 604-592-2982
Phone: 1-877-592-2972 ext. 216

Ordering Communication Materials:

www.productcare.org/service-partners/promotion-and-education

In Event of a Spill:

Report to Product Care:
1-877-592-2972 ext. 216

Resources:

Health Canada: https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/environmental-contaminants/mercury-health.html
Health Canada: https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/everyday-things-emit-radiation/compact-flourescent-lamps.html#a6

Important Information:

Accepted and Not Accepted Products – See Appendix A

Forms:

Pickup Request Form – See Appendix B
Incident Report Form – See Appendix B

Promo Material:

Poster Example – See Appendix C
Brochure Example – See Appendix C

Websites:

Product Care Recycling:
www.productcare.org

WorkSafeNB:
www.worksafenb.ca

Occupational Health and Safety Regulations:
www.worksafenb.ca/policy-and-legal

Table of Contents

1. About New Brunswick's Lights Program

Product Care manages the Light Recycling Program in New Brunswick. This program is a way for consumers to return used lamps to local collection sites. New Brunswick's Lights Program is the consumer-facing brand Product Care created for the recycling of used lamps. These Guidelines provide information about the standard practices and procedures for collecting lights.

Under the New Brunswick Regulation 2024-37 enacted under section 32 of the Clean Environment Act (2024-166), lamp product producers are required to operate a province-wide stewardship program to manage end-of-life lamps from both residential and commercial sectors. Product Care Recycling is the non-profit industry association which has developed and will operate the Program on behalf of the lamps products producers.

New Brunswick's Lights Recycling Program is funded by Environmental Handling Fees (also referred to as EHF or Eco-Fees), and therefore products where an Eco-Fee has not been paid, are not acceptable in this program. This Program is meant for post-consumer products only.

Additional Information Contact
For more information regarding the Program, or if you have any questions after reading these Guidelines, please contact:

Product Care Recycling
nbopslights@productcare.org
Tel: 604-592-2972 or Toll-Free 1-877-592-2972 ext. 216
Fax: 604-592-2982

2. Collection Site Operator/Employee Responsibilities

2.1 Site Operator:

1. Ensure the requirements described in these Guidelines are applied correctly at the collection site
2. Ensure employees have read the Guidelines
3. Ensure employees have access to spill kits and PPE as supplied.
4. Evaluate their site operations to ensure they are in compliance with the Occupational Health and Safety (OHS) regulations

Change of Collection Site Information:
Collection sites must advise Product Care of any changes to contact and/or site info including email addresses, operating hours, location, or changes in ownership.

2.2 Site Employee:

1. Take part in any instruction or training offered
2. Employees are responsible to report any condition to their supervisor that may be a risk.
3. Employees are responsible for following the instructions as provided in the Guidelines when handling lights.

2.3 Training

All collection sites shall ensure that staff are trained in:
The handling and management of lamps including but not limited to:

1. Potential hazards and risks associated with handling of lamps
2. Proper and safe handling of lamps
3. Spill/breakage cleanup procedures and management
4. The program policies/procedures
5. The identification of which products are accepted and not accepted by the program
6. The completion of proper shipping documentation and record keeping and that all such training is documented

3. Collection Site Set-up

3.1 Facility Requirements

The collection site shall:

1. Provide a supervised are for drop off with mechanisms or systems in place to minimize breakage. Unsupervised, self-service drop off is not permitted.

2. Ensure the storage area has sufficient space for safe storage, is protected from weather, and the floor is constructed of impervious material.

3. Ensure that unauthorized access to the premises and storage area is prohibited or restricted through security measures.

4. Have appropriate signage to inform consumers that it is a collection site and has program information available for the customer.

5. Only accept program products as defined in these Guidelines

6. Accept post-consumer lights into the Program from any users: residential customers and institutional, commercial and industry users.

7. Provide notice of any incidents that require the assistance of first responders within 24 hours of the occurrence. Provide notice of any regulatory orders or fines within 48 hours of receiving such orders or fines.

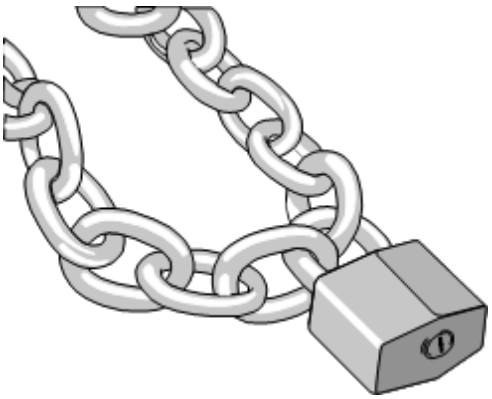
8. Not charge the users for the program services

3.2 Site Security:

During normal business hours, only staff members should have access to the collection containers. When the Collection Site is closed or not attended, the collected lamp products must be secured or locked inside the premises so they are not accessible by animals or other people.

Do not allow public access to the collection area without supervision.

This Program is not a self-drop system. Do not let consumers leave lamps without reviewing them with your staff or allow them to place products directly into the containers. They may break the lamps or store them incorrectly.



4. Collection Supplies

4.1 Collection Materials:

Product Care supplies the collection site with the following equipment:

1. Storage containers:
    a. Compact fluorescent lights boxes - 24”x20”x24”
    b. 4 foot boxes - 48”x12”x12”
    c. 8 foot boxes - 96”x10”x10”
    d. Gaylord boxes – 48”x40”x48”

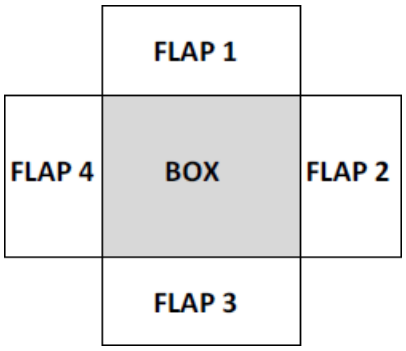
These boxes must be assembled prior to use.

Storage containers (boxes) must be stored in a dry area to prevent water damage. Transporters may not be able to pick up boxes that are water damaged.

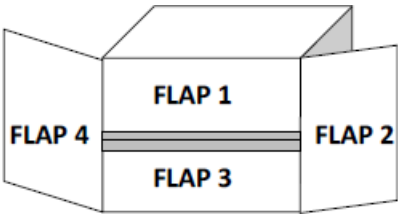
4.2 Packaging

Collection Box Assembly: CFL Bulbs

1. Start by unfolding the flattened box into a square shape.

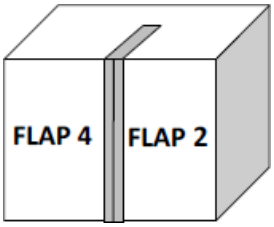


2. Fold Flap 1 and Flap 3 over the box opening until they meet in the middle.



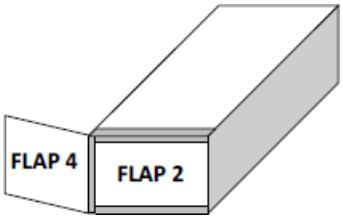
Affix two (2) strips of packing tape down the middle of the flaps.

3. Fold Flap 2 and Flap 4 until they meet in the middle.



Affix two (2) strips of packing tape down the middle of the flaps. Make sure that the strips of tape reach down the entire side of the box.

4. Affix two (2) strips of packing tape along each side of the box where the flaps were closed.



5. Ensure that all open edges of the bottom of the box are securely taped up.

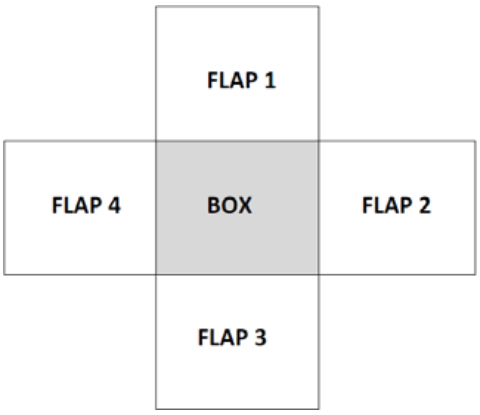
7. Open the plastic liner bag provided inside each box and fold the liner over the top of the box.

Upon completion of steps 1-7, the box is now ready for use.

Collection Box Assembly: Fluorescent Tubes

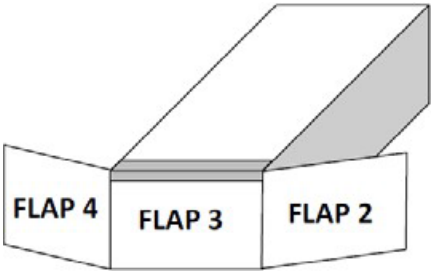
1. Start by unfolding the flattened box into a rectangular shape.

Note: All four flaps are full flaps.



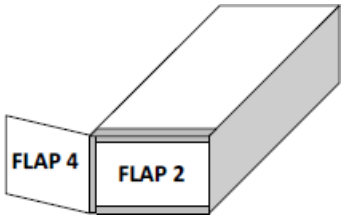
2. Fold Flap 1 and Flap 3 over the box opening.

Affix two (2) strips of packing tape along the edge of the box where the flap is closed.



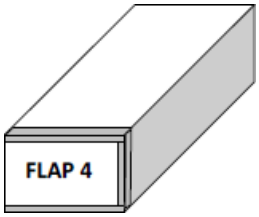
3. Fold Flap 2 over.

Affix two (2) strips of packing tape along each of the three (3) edges of the box where the flap was closed.



4. Fold Flap 4 over.

Affix two (2) strips of packing tape along each of the three (3) edges of the box where the flap was closed.



5. Make sure all the open edges of the bottom of the box are securely taped up.

6. Open the plastic liner bag provided inside each box and fold the liner over the top of the box.

Upon completion of steps 1-6, the box is now ready for use.

Gaylord Box Instructions

Gaylord boxes should be placed on pallets prior to being filled as they will be shipped on a pallet.

1. Gaylord boxes should be centered in the middle of the pallet.
3. Make sure that the box is placed securely on the pallet (should not extend or fall beyond the edges of the pallet).
4. Begin filling Gaylord boxes from the middle of the box going outward to prevent tubes from tipping over.
5. When the Gaylord box is full, pull the plastic liner over the top and tie or tape it shut to prevent the items from falling out of the box or to contain any breakage.
6. Ensure the box is completely full, as to minimize the amount of movement within the box during transport, to minimize the amount of breakage.
7. Do **NOT** overfill the Gaylord boxes.
8. Place the lid on top of the box opening and shrink wrap it to prevent it from shifting during transportation.
9. Write the name of your company on the shrink wrap.

4.3 Safety Equipment:

1. Spill kit

A spill kit will contain the following supplies:

a. Sealable Plastic Bags
b. Tape
c. Cardboard
d. Disposable gloves
e. Disposable mask
f. Eyedropper (for liquid mercury pickup)

4.4 Other supplies that will be provided:

1. Tape (for boxes)
2. Shrink wrap
3. Shipping Pallets
4. Copy of Guidelines
5. Communication Materials:
    a. Collection Site signage
    b. Brochures or Rack cards

See Appendix C for Communication Materials Photos

Communication materials may be obtained by phone (1.877.592.2972 ext. 216), fax (604.592.2982) or through our website at https://www.productcare.org/service-partners/promotion-and-education/. If ordering online, choose your province and program when ordering information materials and they will be shipped to you.

5. Products Accepted (See Appendix A for full list)

The Program includes all lamp products as defined by the regulation:

“Lamp product” means a replaceable light source designed to produce light from electricity and includes, but is not limited to, all of the following:

1. Fluorescent tubes,
2. Compact fluorescent lamps,
3. High-intensity discharge lamps,
4. Incandescent lamps,
5. Light-emitting diode lamps

The program's public collection sites are not to accept lamps that have been crushed on purpose. However, a resident or generator may bring their incidentally broken lamps and the materials used to clean it up (such as paper towel or cardboard) in a sealed plastic bag or sealed glass container. If a resident or generator brings in a broken lamp, ensure it is in a sealed bag or sealed glass container and put it in the program collection container for lamps.

Although collection sites are not to accept intentionally crushed lamps (ie those crushed by a drum-top crusher, or bulb crusher) the program can provide alternative collection services for them on request. For inquiries about recycling intentionally crushed lamps, please instruct generators to contact Product Care Recycling at 1-877-592-2972 ext. 216 or nbopslights@productcare.org.

String lights are considered light fixtures and are NOT accepted when bulbs are attached to the fixture. Consumers must remove bulbs from string lights for the bulbs to be accepted. The fixture portion of the product is not accepted through this program.

The Program accepts lamps products from any category of lamp products consumer including:

1. Homeowners

2. Institutional, commercial, and industry users

6. Collection Procedure

6.1 Receiving burned out lamp products from Consumers and Businesses:

- ► Storing products correctly:
  - ○ Immediately place the lamp products inside the appropriate boxes:
    - place tubes in 4’ or 8’ boxes according to length of tubes
    - CFL, LED, HID, incandescent, or halogen (all bulbs) in bulb boxes (cubic boxes)
  - ○ Do not overfill the boxes
  - ○ Properly close the boxes when full

- ► In case of breakage of lamps product:
  - ○ The program has provided a spill kit in case of lamp breakage
  - ○ The content of the spill kit should be used to recover lamp product (refer to section 9)
  - ○ The material used to collect the debris should be placed in the plastic bag provided and paced into a bulb box

6.2 Shipment Procedures

- ► Arranging for shipment:
  - ○ You should order a pickup once 1/2 – 3/4 of any of your box types have been filled to ensure your site does not reach over-capacity
  - ○ When you have full boxes and would like them picked up you can either call or email your information to us

By Phone/Fax:

Please call Product Care at 1-877-592-2972 ext. 216

Or complete the form found in Appendix B and fax to 604-592-2982

You can also request any supplies needed at that time.

By Email:

- Please complete the 'Container request form' found in appendix B.
- Please keep this form blank and photocopy as needed. Please request any supplies needed at this time using this form.
- Please email the completed form to: nbopslights@productcare.org

Whether you choose to phone, email or fax in your order, we will send the carrier to pick up the full boxes and deliver empty replacement ones to you.

Note: the pickup of full boxes and the drop off of new empty boxes is not necessarily done at the same time.

Make sure to order any supplies that you need and at the time you place your order for pickup. These supplies will likely be delivered to you separately from your pickup. Ensure that you place an order for supplies before you run out as it could take several days from the time you place an order to when you receive your order.

7. Occupational Health and Safety

You are responsible for ensuring that your facility and operations, including lamp products collection activities, meet the requirements of WorkSafeNB.

All collection sites shall:

1. Comply with all applicable health and safety regulations including but not limited to the Workers' Compensation Act
2. Possess written procedures to systematically manage environmental, health and safety matters such as but not limited to accidents and spills

3. Implement and maintain proper lamp handling and safe housekeeping procedures to ensure minimal risk of breakage
4. Provide adequate training for all employees to ensure safe and proper handling of lamps
5. Document health and safety training
6. Provide and enforce correct use of required personal protection equipment noted in Section 9
7. Implement spill/breakage cleanup procedure when needed and maintain equipment/supplies according to the Guidelines

8. Hazards related to Lamp Collection

8.1 Lifting

Moving boxes of lamps requires bending and lifting which can cause injury if done incorrectly. Simple precautions should be used as a means of prevention.

- When lifting, bring objects near to the body; do not try to lift at arm's length.
- Bend your knees and keep the back straight.
- Only lift what you can manage safely; ask for assistance if it is needed.
- Ensure that boxes are not overfilled to avoid unsafe lifting.

8.2 Broken Glass

A risk with handling lamps is getting cut with broken glass. Should a lamp get broken, follow the clean-up procedure found in Section 9.

8.3 Mercury Exposure

Inhaling mercury vapour is another risk associated with handling broken lamps. As with broken glass, follow the clean-up procedure in section 9.

8.4 Safety Equipment

No safety equipment is required for the regular handling of intact light bulbs.

The personal protective equipment (PPE) required to handle broken lamps is noted in Section 9.

9. Emergency Response

9.1 Summary of Emergency Response Procedures

Spills/Breakage

If you break a fluorescent lamp (CFL or fluorescent tubes) or HID lamp, follow these directions for clean-up:

1. Leave the room
2. Ventilation:

- Ventilate the room by opening windows and doors to the outdoors.
    - This will ensure that the mercury vapour levels are reduced before you start cleaning.

Fire or Explosion

In the event of a fire at the collection site, the person who discovers the fire will immediately initiate the response plan as follows:

1. **Set off** the fire alarm.
2. **Notify** all personnel in the vicinity of the fire, and direct them to evacuate the area.
3. **Contact** the primary or alternate ERC directly, or request nearby personnel to notify the ERC immediately.
4. **Contain** the fire using available fire protection equipment ***only*** if the fire is small or manageable.
5. **Clear** the area and allow the Fire Department to shut off the material. Persons at workstations are responsible for shutting down equipment as they evacuate, provided it is safe to do so.

9.2 Detailed Response Procedures

Spills/Breakage

If you break a fluorescent lamp (CFL or fluorescent tubes) or HID lamp, follow these directions for clean-up:

1. Leave the room

- Leave the room and keep people out from the room during the clean-up process.
- Avoid stepping on broken glass

2. Ventilation

- Ventilate the room for at least 15 minutes prior to starting clean-up by opening windows and doors to the outdoors.
    - This will ensure that the mercury vapour levels are reduced before you start cleaning

3. Clean-up

- Do **NOT** use a vacuum or broom to clean up the initial breakage.
    - This will spread the mercury vapour and dust throughout the area.
    - Additionally, contamination may occur within the vacuum and/or on the broom.
- Wear disposable gloves to avoid direct contact with mercury and to reduce the risk of cuts.
- Scoop or sweep up the broken pieces and debris with the two pieces of cardboard provided in the clean up kit and place into the sealable plastic bag.
    - Work from the outside of the spill to the centre.
    - Use the cardboard to gather the beads of mercury.
        - Tip- a flashlight held at a low angle in a darkened room can be used to find beads of mercury which can travel quite far on a hardened surface.
- Use eyedropper to collect mercury and then squeeze carefully into a damp paper towel.
    - Repeat this step as often as necessary to cover the affected area thoroughly.
    - Place the paper towel into the same sealable plastic bag (note this is only required for HID lamps with a visibly broken ampoule).
- Use packing tape to pick up smaller beads and place in plastic bag.
    - Note this is only required for HID lamps with a visibly broken ampoule.

- Residual mercury can be removed by wiping with vinegar followed by peroxide.
    - Note this is only required for HID lamps with a visibly broken ampoule.
- Keep the area well ventilated for 24 hours.
- Place the broken glass and all clean-up materials in the plastic bag and seal it to further minimize the release of mercury vapour.
- All contaminated items and mercury should be double or triple bagged.
- Once the clean-up effort is completed, place the sealed bags in a sturdy container (plastic container, glass jar etc.) and then place the container in a bulb box.
- Wash your hands after storing and disposing of waste.

NOTE: These procedures based off the recommended procedures from Health Canada that are at the following link: https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/everyday-things-emit-radiation/compact-flourescent-lamps.html#a6

Fire or Explosion

1. Notify a staff member who will then notify the Emergency Response Co-ordinator or alternate ERC. Set off the fire alarm.
2. The Emergency Response Co-ordinator will then ensure the following actions occur:
    - Call Fire Department (911)
    - Evacuate all other personnel to the rendezvous point
3. If the **FIRE IS MANAGEABLE,** the Emergency Response Co-ordinator will supervise the response team in the following:
    - Bearing down on fire with available extinguisher
    - Ensuring all process equipment is turned off
4. If the **FIRE IS RAPIDLY EXPANDING OR OUT OF CONTROL**, all personnel will be evacuated to the marshalling area indicated below:

Evacuation and Assembly Point

In the event of an evacuation due to emergency, all personnel will collect at the primary marshalling area indicated below:

Description of the primary marshalling area location

5. If the primary marshalling area is not safe due to wind direction or for other reasons, all personnel will proceed to the secondary marshalling area indicated below:

Description of the secondary marshalling area location

Personnel must remain at the marshalling location until otherwise directed by the Emergency Response Co-ordinator (ERC). The ERC will perform a head count at the marshalling area to ensure all personnel are accounted for.

5. Emergency Response Co-ordinator will take a head count at the marshalling area to ensure all employees are accounted for.
6. When the Fire Department arrives, all necessary assistance will be given to the Fire Department under the direct supervision of the Emergency Response Co-ordinator.

9.3 Notification

Product Care

Report any incident to Product Care (24 hrs) at 1-888-772-9772
After reporting the incident, complete the Emergency and/or Incident Report Form with all the details of the spill and send it to Product Care immediately:
Fax: 604.592.2982
Email: nbopslights@productcare.org

The report form is in appendix B of this guideline.

Regulatory

Fire or Major Incident

If the incident is a fire or major incident, report to the regulatory agencies below:

NB Emergency Measures Organization 1-800-561-4034 (24-hr)
Bathurst Regional Office (506) 547-2092
Miramichi Regional Office (506) 778-6032
Moncton Regional Office (506) 856-2374
Saint John Regional Office (506) 658-2558
Fredericton Regional Office (506) 444-5149
Grand Falls Regional Office (506) 473-7744

After hours, telephone Environment and Climate Change Canada's National Environmental Emergencies Centre (NEEC) until personal contact is made and provide as much information that is known about the environmental emergency. The telephone number for NEEC is provided below:

NEEC (Phone) at 1-800-565-1633

WorksafeNB 1-888-999-9775 (8am – 5pm) OR FAX 1-888-629-4722

9.4 Emergency Reporting

Initial Notification

Immediately following the discovery of an environmental emergency, a designate representing the owner or operator of the facility shall notify the Department in the following manner:

During normal business hours, telephone the Department's applicable Regional Office **until personal contact is made** (i.e. no voice mail messages will be accepted) and provide all information known about the environmental emergency. The telephone numbers for the Regional Offices are provided above.

Follow-Up

Within 24-hours of the time of initial notification, a copy of a **Preliminary Emergency Report** shall be faxed by a designate representing the owner or operator of the facility to the Department's applicable Regional Office *as well as* the Department's Central Office using the fax numbers provided below. The Preliminary Emergency Report shall clearly communicate all information available at the time about the environmental emergency.

Within five (5) days of the time of initial notification, a copy of a **Detailed Emergency Report** shall be faxed by a designate representing the owner or operator of the facility to the Department's applicable Regional Office *as well as* the Department's Central Office using the fax numbers provided below. The Detailed Emergency Report shall include, as a minimum, the following: i) a description of the problem that occurred; ii) a description of the impact that occurred; iii) a description of what was done to minimize the impact; and iv) a description of what was done to prevent recurrence of the problem.

APPENDIX A – ACCEPTED / NOT ACCEPTED PRODUCTS

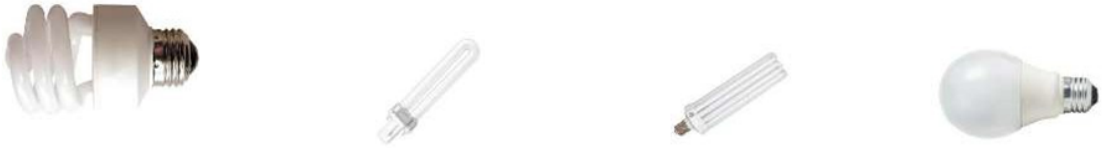
Accepted Products:

Lamp Category	Typical Size
1. Fluorescent Tubes measuring ≤ 2 feet - Includes all diameters, light outputs and shapes (curved etc.)	2 feet
2. Fluorescent Tubes measuring > 2 feet and ≤ 4 feet - Includes all diameters, light outputs and shapes (curved etc.)	4 feet
3. Fluorescent Tubes measuring > 4 feet - Includes all diameters, light outputs and shapes (curved etc.)	8 feet
4. Compact Fluorescent Lights (CFL) - Fluorescent bulbs that are typically similar in size and intended to replace an incandescent (traditional) light bulb, including pin-type sockets, covered CFLs and various output wattages	CFL
5. Light Emitting Diodes (LED) - Solid-state lamps used for specialty purposes and conventional lighting applications	LED
6. High Intensity Discharge (HID) and Other: High Pressure Sodium, Low Pressure Sodium, Mercury Vapour and Metal Halide, UV, Germicidal and UHP replacement lamps	HID
7. Incandescent and Halogen - Filament lamps of all shapes, sizes and wattages (unless captured under category 8)	Inc.
8. Miniature Bulbs - LED, halogen and/or incandescent lamps designed and sold as replacement lamps for decorative lights or hand-held lights (e.g. flashlights).	Miniature

Accepted Products:

ACCEPTED LIGHTS – Residential Lights
Fluorescent Tubes - Straight/Linear
Includes all diameters and light outputs in a straight/linear configuration. Can range in size from under 2 feet in length to 8 feet in length. 
Fluorescent Tubes - Curved/Circular
Includes all diameters and light outputs in a curved/circular configuration (curved, square, U, etc.). 
UV and Germicidal Lamps
UV or germicidal lamps of all shapes and sizes. All base types including pin-type, screw-in, etc. 

Accepted Products:

ACCEPTED LIGHTS – Residential Lights
Compact Fluorescent Lamps (CFLs)
Fluorescent bulbs that are typically similar in size and intended to replace an incandescent (traditional) light bulb.

Halogen and Incandescent- Bulbs
Filament lamps of all shapes, sizes and wattages. All base types including pin-type, screw-in, etc.

Light Emitting Diodes (LED)
Solid-state lamps used for specialty purposes and conventional lighting applications. All base types including pin-type, screw-in, etc.


ACCEPTED LIGHTS – Residential Lights
Ultra High Performance (UHP) / Mercury Arc Lamps
Replacement lamps designed for commercial projection systems, home theatre projectors, MD-PTVs and video walls. Often housed within a metal casing.

High Intensity Discharge (HID) and Other
Includes all HID technologies, such as high pressure sodium, low pressure sodium, mercury vapour and metal halide. These lamps vary in size but are much larger than a typical bulb. In some cases, they can be as big, or bigger, than a football.


Light Emitting Diodes (LED)

Solid-state lamps used for specialty purposes and conventional lighting applications. All base types including pin-type, screw-in, etc.


Not Accepted Items:

Lighting Fixtures:

Products considered light fixtures should NOT be placed in the boxes designed for lamps (bulbs and tubes).

Examples of lighting fixtures include:

- Bike Lights
- Ceiling Fixtures
- Chandeliers
- Flashlights
- Floor Lamps
- Light Strings (e.g. Christmas lights)
- Outdoor fixtures
- Recessed/Pot lights

All bulbs used within these fixtures that are easily removable/ replaceable are accepted, but the bulbs must be removed from the fixture before recycling.

APPENDIX B – FORMS (NEXT PAGE)

New Brunswick Lights Lamp Container Request Form

Please fax this form to *1-604-592-2982* or email to nbopslights@productcare.org

DATE: _____

CONTACT NAME: _____

DEPOT NAME: _____

ADDRESS: _____

PHONE: _____ **FAX:** _____

SHIPPING HOURS: _____

TO BE PICKED UP:

BULB BOXES (24" x 20" x 24")		8 FT. TUBE BOXES (96" x 10" x 10")	
4 FT. TUBE BOXES (48" x 12" x 12")		OTHER (GIVE DETAILS)	

SUPPLIES NEEDED:

4 FT. TUBE BOXES (48" x 12" x 12")		SPILL KIT	
8 FT. TUBE BOXES (96" x 10" x 10")		PACKING TAPE	
BULB BOXES (24" x 20" x 24")		SHIPPING PALLETS	
OTHER (GIVE DETAILS)			

SPECIAL SHIPPING INSTRUCTIONS and NOTES:

NEW BRUNSWICK LIGHTS PROGRAM INCIDENT REPORT

Only fill out this incident report if five (5) or more lamps were broken at one time.

Depot Name _____

Depot Address _____

Telephone Number _____

Date of Incident _____ Time of Incident _____

# of CFL Broken	☐ Five (5)	☐ Six (6) to nine (9)	☐ 10+	☐ Box dropped
# of Tubes Broken	☐ Five (5)	☐ Six (6) to nine (9)	☐ 10+	☐ Box dropped
# of Other Broken	☐ Five (5)	☐ Six (6) to nine (9)	☐ 10+	☐ Box dropped

If the box dropped and resulted in broken glass, please answer the following questions:

Did any broken glass spill onto the floor? ☐ Yes ☐ No

Did the box drop during: ☐ Packing ☐ Movement ☐ Shipping

Please describe the incident (use additional paper if needed):

_____

_____

Was the staff wearing protective gear to clean up? ☐ Yes ☐ No

Was anyone injured? ☐ Yes ☐ No

If yes, please attach a copy of the Workers Compensation Form and Record to this report.

What are your suggestions to help prevent this type of incident from happening in the future?

_____

_____

Please complete the information and fax or e-mail (and other forms if applicable) to Product Care. The mailing address, email, fax and telephone number are:

7781 Vantage Way, Delta, BC V4G 1A6
nbopslights@productcare.org

FAX: 604-592-2982
PHONE: 1-877-592-2972 Ext 216

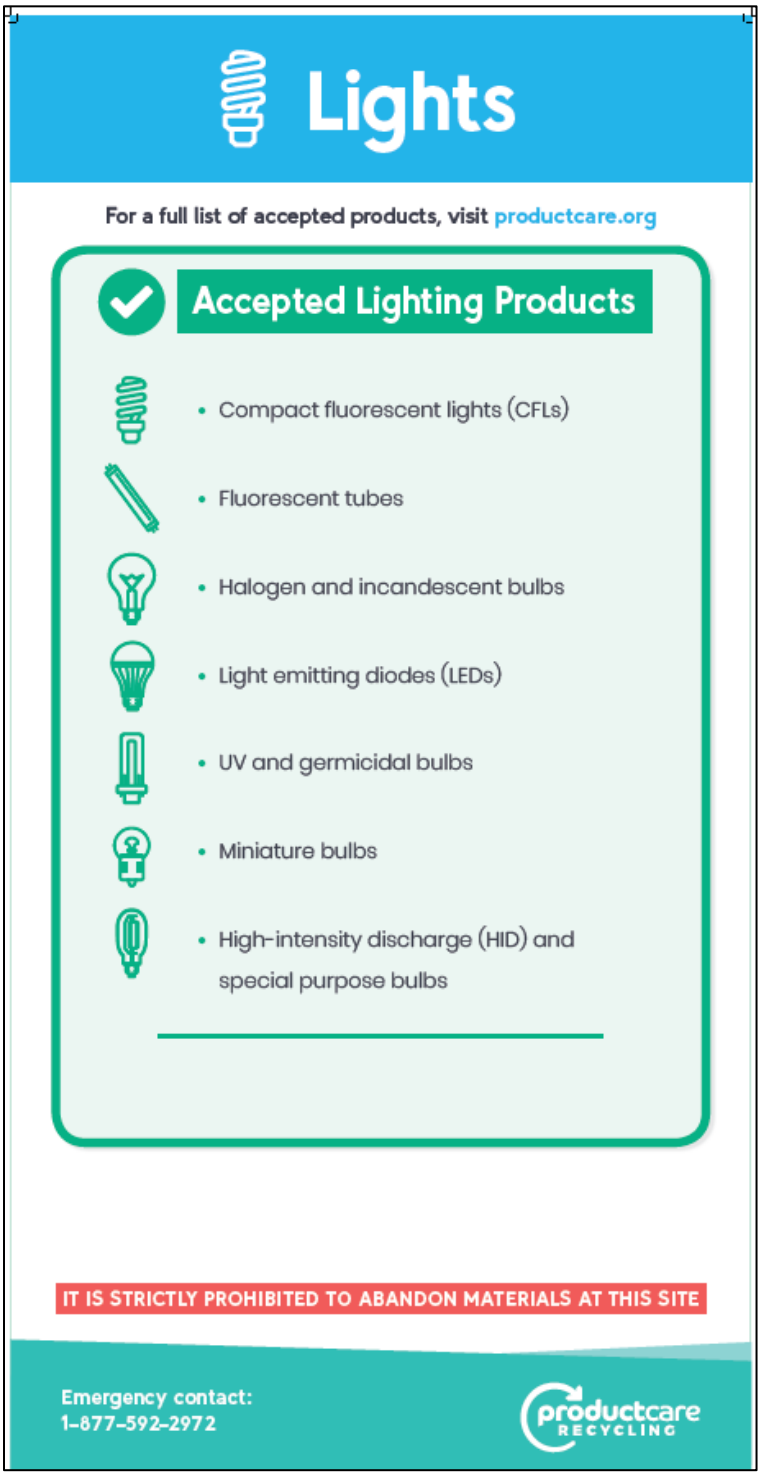
Employee Name_____ Signature _____

Manager Name _____ Signature _____

APPENDIX C: COMMUNICATION MATERIALS

https://www.productcare.org/service-partners/promotion-and-education/

Poster (46”x23”):



Brochures/Rack Cards (9”x4”):

Front:

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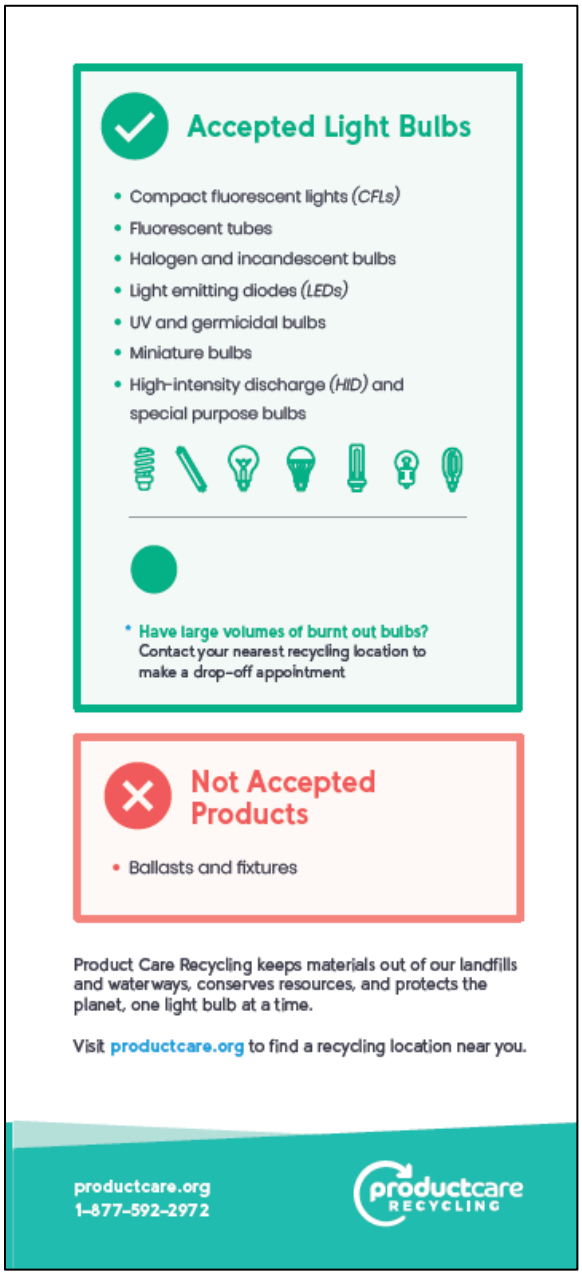

APPENDIX C – LAMP PROCESSING STANDARD

productcare RECYCLING

LIGHT RECYCLE PROCESSOR STANDARD

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FORWARD

The Light Recycle Processor Standard defines the minimum requirements for business and organizations to become an approved processor under Product Care Association's NB Lights Stewardship Program. This standard intends to ensure that Lights are managed and processed in a manner that will adequately safeguard the environment and worker health and safety. It also ensures that data is collected in order to track the materials. Product Care reserves the right to review and revise these standards on an on-going basis.

BACKGROUND

Many types of Lights are commonly used and are considered safe under normal conditions of use. The processing of lights, however, requires some safety controls and measures, especially for lights containing mercury, which is a highly toxic substance. The processors will be responsible for processing intact lights from the program but may also have the ability to handle and process lights that are intentionally pre-crushed or incidentally broken. The processing and recycling of lights typically involves some sort of mechanical dismantling and separation in which the lights are broken. During the process of recycling lights, if systems and procedures are not in place, there is potential risk of negative impact on the environment and employee health and safety. All processors and downstream processors (until the point where the components of the lights become commodities usable to produce new products or the final disposition for disposal) will be required to be approved under this standard. Prior to becoming an approved processor, the processor will have had to go through the program's audit process as well as having audits performed for its downstream processors. It is the responsibility of the primary processor to ensure that program materials are sent to only approved downstream processors. The program will ensure ongoing compliance with the standard through the audit system.

DISCLAIMER

The Lamp Processor Standard is not intended to absolve processors from the responsibility of compliance with any federal, provincial and/or municipal legislation and regulations applicable to the management of mercury-containing or other Lights, or the business operation of the processor. Nor is it intended to constitute or to provide legal advice. It is the responsibility of the processor to be aware of and abide by all such legislation and regulations.

1. GENERAL REQUIREMENTS

All Processors shall:

1.1. Possess a valid business license.

1.2. Comply with all applicable federal, state, provincial and local/ municipal laws and regulations.

1.3. Prohibit the export of hazardous waste throughout the recycling chain to non- OECD/non-EU countries.

1.4. Possess Comprehensive or Commercial General Liability Insurance including coverage for bodily injury, property damage, complete operations and contractual liability with combined single limits of not less than $2 million per occurrence and $2 million general aggregate.

1.5. Possess Environmental Liability Insurance with combined single limits of not less than $2 million per occurrence and $2 million general aggregate.

1.6. List Product Care Association on the insurance policies (in 1.4 and 1.5) as an additional insured party.

1.7. Possess and maintain in good standing workers compensation coverage as required under the Workers' Compensation Act of the designated program province and its Regulations or possess workers compensation coverage through either a provincial/state program or through private insurance policy.

1.8. Maintain all records for a minimum of 3 years, including but not limited to manifests, other shipping documents, waste records and chain of custody for all lamp materials processed.

1.9. Possess a valid provincial/state approved permit, plans, and approvals, as applicable.

1.10. Possess a valid waste generator number or EPA identification number, as applicable.

1.11. Possess a valid air emission permit and effluent discharge permit, as applicable.

1.12. Maintain a documented closure plan that identifies at a minimum the financial requirements upon closure and the financial mechanism for ensuring the availability of such funds, such as a security or performance bond or other similar financial instruments, and how the existing inventory of products/waste will be managed.

1.13. Maintain a process to provide written notice of closure to Product Care with a minimum of 90 days advance notice.

1.14. Maintain a process to provide notice to Product Care of any incidents that required the assistance of first responders within 24 hours of the occurrence. Provide written notice of any regulatory orders or fines within 48 hours of receiving such orders or fines.

1.15. Allow PCA or its agent's access to the processors facility to conduct site inspections and audits in order to verify conformance with the Light Recycle Lamp Processor Standard. The processor agrees to provide any documentation requested by PCA or its agents.

2. ENVIRONMENTAL HEALTH & SAFETY (EHS) MANAGEMENT SYSTEM

All Processors shall implement and maintain a documented environmental health and safety management system (EHSMS) to ensure the identification and adequate controls over environmental and health & safety impacts associated with the operations of recycling Lights. Notwithstanding any legislative requirements, the EHSMS shall at a minimum consist of the following:

2.1. Maintain a written policy approved by senior management outlining corporate commitment to environmental management and continuous improvement.

2.2. Maintain a summary of current applicable statutes, regulations and other applicable requirements such as this standard that are relevant to the processor's operations.

2.3. Maintain a documented process to identify, track, assess and ensure compliance with any changes to regulatory and other applicable requirements including this standard, on an ongoing basis, including but not limited to:

- Environmental regulations
- Waste and hazardous waste regulations
- Occupational health and safety regulations

- Air emissions and water discharge regulations
- Transportation regulations

2.4. Implement and maintain an emergency response plan to prepare for and respond to emergencies including fires, spills, and medical.

2.5. Maintain a documented process to record and track the results of an annual risk assessment of the potential environmental and health & safety impact of the operation and any corresponding corrective and/or preventive actions taken.

2.6. Maintain a documented process for employees to report, record and investigate any accidents, injuries, spills, near misses and other incidents that could have resulted in an injury or an unauthorized release to the environment and any corresponding corrective and/or preventive actions taken.

2.7. Maintain a documented process to communicate to employees the results of the risk assessment and investigations of any injuries, accidents, near misses, spills and unauthorized releases and the corresponding corrective/preventative actions taken.

2.8. Conduct and document a review of the EHSMS, by senior management, to ensure adequacy and effectiveness of the EHSMS. The review is required to be conducted at a minimum on an annual basis or:

- Whenever new lights processing equipment is installed.
- Whenever existing lights processing equipment is modified such that the modification may impact the environment and/or employee health & safety or
- Whenever there is substantial re-organization of personnel in lights processing

3. ENVIRONMENTAL HEALTH & SAFETY (EHS) RISK ASSESSMENT

An EHS risk assessment shall be conducted on an annual basis to identify and assess the environmental and health and safety impacts of the entire operations. Should the operations undergo significant changes that introduce potential new risks/hazards or increase the severity of such hazards, a new risk assessment must be conducted; either task specific or for the entire facility, dependent on the amount of change to the operations. The EHS risk assessment shall include at a minimum the following:

3.1. A process to identify physical and chemical hazards and to assess the probability and severity of such hazard.

3.2. A process to identify areas with potential negative impacts to the environment and to assess the probability and severity of such hazard.

3.3. A process to determine the appropriate level of control necessary to eliminate or effectively control the hazards.

3.4. A process to identify the frequency and need for air quality monitoring/assessment, noise level monitoring/assessment, medical surveillance and the development and implementation of an exposure plan as required by regulation.

3.5. Maintain a documented process to communicate to employees the results of the EHS risk assessment and the process involved in assessing the environmental and health and safety impact of the entire operation.

4. ENVIRONMENTAL HEALTH & SAFETY (EHS) CONTROLS

All processors will ensure that controls are in place to address the risks identified through the risk assessment process to prevent accidents, injuries, chemical exposure and unapproved releases to the environment. All processors, at a minimum shall:

4.1. Develop, maintain and document a training program for the handling and management of Lights including but not limited to:

- Potential hazards and risks associated with handling of Lights
- Proper and safe handling & storage of Lights
- Proper use of processing and safety equipment including proper use and care of personal protective equipment
- Proper spill/breakage clean up and management
- Safety and emergency procedures
- Accident/injury reporting and management
- Emergency response plan

4.2. Implement and enforce hygiene practices, eating, drinking, smoking restrictions and decontamination procedures to minimize risk of exposure to hazardous materials.

4.3. Implement and maintain good housekeeping procedures.

4.4. Provide adequate personal protective equipment and spill response equipment.

4.5. Provide physical guards to protect against mechanical hazard and other physical hazards.

4.6. Conduct a baseline sampling program for noise level monitoring, air quality monitoring, effluent discharge and hazardous waste delisting and develop a sampling program based on the risk assessment and baseline testing results.

4.7. Implement a medical surveillance program as needed based on the risk assessment and the baseline test results.

4.8. Conduct and document on an annual basis, testing of the emergency response plan, review results, and revise as necessary.

4.9. Conduct fire safety equipment inspection and testing at a minimum annually.

4.10. Implement and document an equipment inspection and maintenance schedule for any mechanical processing equipment and mechanical systems/apparatus engineered to reduce emissions and worker exposure.

4.11. For automated equipment, ensure there is an emergency shut-off system and that it is tested regularly.

4.12. Designate a person in charge of ensuring environmental health and safety controls are adequate and effective within the entire operations of the facility and provide Product Care with the name, job title and responsibilities of the designated person. Notify Product Care within one week of any change.

5. MATERIAL HANDLING

All Processors will:

5.1. Maintain adequate security measures to prevent unauthorized access to premise and storage areas.

5.2. Ensure that unprocessed lights and hazardous components are stored and processed in an area that is protected from environmental elements and away from drains and catch basins.

5.3. Ensure that lights are processed within 90 days of receipt and all resulting downstream products/commodities are shipped to approved downstream processors within 120 days of receipt.

5.4. Provide the program with written 90-day notification of intentions to change downstream processors and await written approval from program prior to changing downstream processors.

5.5. Maintain evidence of permits or licenses of transporters utilized for transportation of hazardous waste.

5.6. Maintain evidence of permits/approvals/license of downstream processors/service providers utilized for hazardous waste management.

5.7. Commit to a system of continuous improvement with respect to moving materials up the recycling hierarchy and to notify the program of any new opportunities or technologies to move the final destination of materials up the pollution prevention hierarchy.

6. ADMINISTRATION

All processors shall:

6.1. Maintain and document a tracking system for the facility that includes at a minimum the following information at the receiving and processing stages for all program materials on a monthly basis:

- Date shipment was received
- Generator name corresponding to shipment
- Bill of lading or manifest number corresponding to each shipment
- Quantity of Lights per each light technology corresponding to each shipment

- Verification that shipment was inspected by appropriate personnel and corresponds to Bill of Lading/Manifest information

6.2. Maintain and document a monthly Inventory of lamp volumes at the facility that includes at a minimum the following information:

- Date shipment was received
- Generator name corresponding to shipment
- Bill of Lading or Manifest Number corresponding to each shipment
- Quantity of Lights per each lamp technology corresponding to each shipment
- Weight of constituent components in Inventory

6.3. Maintain and document a monthly and annual record of the downstream flow and handling of Lights from receipt at processor's facility to each point of final disposition, including details on how the various components are processed at each point and the amounts /percentages sent to each downstream processor. Product Care will treat specific downstream processor names as confidential.

6.4. Provide certificates of recycling for all program material processed on a monthly basis.

6.5. Provide training with respect to proper completion of shipping documents and record keeping to applicable and appropriate personnel.

6.6. Designate a person in charge of maintaining the required documents and provide Product Care with the name, job title and responsibilities of the designated person.

7. DEFINITIONS

Mercury-containing Lights – are compact fluorescent lights (CFL), fluorescent tubes, high intensity discharge Lights (HID) and other lights technologies that use mercury to generate light.

7.1. "Downstream Processor" means an entity that receives material from a primary recycler or other downstream processors for additional processing and/or disposition.

7.2. "Generator" means an entity possessing end-of-life lights and from which a shipment to the processor originates.

7.3. "Inventory" refers to the Light Recycle program products received by the facility but not yet processed, or the constituent components not yet shipped to downstream processors for additional processing.

7.4. "Point of final disposition" means a point in the downstream flow of materials where the separated materials generated from the processing of lights become commodities used to produce new products or the materials are disposed of.

7.5. "Pollution prevention hierarchy" is as follows in descending order of preference, such that pollution prevention is not undertaken at one level unless or until all feasible opportunities for pollution prevention at a higher level have been undertaken:

- Reduce the environmental impact of producing the product by eliminating toxic components and increasing energy and resource efficiency.
- Redesign the product to improve reusability or recyclability.
- Eliminate or reduce the generation of unused portions of a product that is consumable.
- Reuse the product.
- Recycle the product.
- Recover material or energy from the product, or
- Otherwise dispose of the waste from the product in compliance with all applicable federal, state, provincial and local/municipal laws and regulations

7.6. "Processing" is the process by which end-of-life Lights are manually or mechanically broken down into constituent parts and recoverable components are retrieved.

7.7. "Processor" is an entity that manages the processing of end-of-life Lights and ensures recoverable components are sent to downstream processors for additional processing and/or final disposition.

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