



2015

Prince Edward Island

Paint Recycling Program

Annual Report

Submitted to: **Prince Edward Island Department of Communities, Land and Environment**

Submitted by: **Product Care Association**

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1.0 About Product Care Association

Product Care Association of Canada (PCA) is a federally incorporated, not-for-profit product stewardship association formed in response to stewardship regulations and is governed by a multi-sector industry board of directors. PCA has managed paint and other household hazardous waste industry stewardship programs since 1994.

PCA's members are the "brand owners" (manufacturers, distributors and retailers) obligated by the *PEI Materials Recycling Regulations* ("Regulation") under the category of architectural paint.

PCA has an approved paint stewardship program plan with the Prince Edward Island Department of Communities, Land and Environment under the Regulation. The PEI Paint Recycling Program (the "Program") began in September 2012. PCA also operates the LightRecycle stewardship program for lamps in Prince Edward Island.

1.1 Report Period

This report covers the Program from January 1, 2015 to December 31, 2015.

1.2 Program Summary

The Prince Edward Island Paint Recycling Program offers collection sites throughout the Province to which consumers can bring leftover household paint. The collection sites are operated by Island Waste Management Corporation under contract to PCA.

Environmental handling fees (EHFs) applied to each regulated container of paint and aerosols that is sold into the province provide funding to manage the Program (See Appendix 1 for 2015 EHF rates). The Program allows residents of PEI to return leftover paint to any of the six collection sites, free of charge.

PCA supplies collection sites with standard reusable collection bins and other containers, such as drums. A hauler contracted to the Program collects the filled bins from the collection sites and drops off empty bins. The full collection containers are shipped to a processor for recycling. PCA also manages additional elements of the program, including revenue management, communications and administration.

2.0 Brand Owner Sales Information

Program members reported the sale of program products in PEI from January 1 to December 31, 2015 for an estimated liquid volume sold of 901,652 litres.

3.0 Collection

The following section provides the total amount of waste paint collected in PEI, as well as the location of return depots.

3.1 Total Amount of Waste Paint Collected

Table 1 shows the total amount of waste paint collected and processed by the Program for the reporting period by collection container (i.e., tubskids and drums) and by approximate residual volume (litres).

Table 1: Total Amount of Waste Paint Collected in 2015

| | Number of Tubskids ¹ | Residual Paint Volume ² | Number of Aerosol Drums | Residual Aerosol Paint Volume ³ | Total Residual Paint Volume ⁴ |
|------------------------------|---------------------------------|------------------------------------|-------------------------|--|--|
| Waste Paint Collected | 536 | 77,238 | 41 | 820 | 78,111 |

(1) Each collection bin measures 42 x 42 x 48" and with a nominal capacity of 108 one gallon containers. The actual number of paint containers per bin varies depending on the mix of paint container sizes, ranging from 250ml – 18.9L capacity.

(2) Based on a rounded conversion rate of 144.1 L per tubskid determined by the average volume of material generated during processing. Residual paint volume does not include paint handled through the Paint Exchange Program

(3) Based on a conversion rate of approximately 20 L per drum determined by the average volume of material generated during processing

(4) Total Residual Paint Volume includes approximately 53L from the Paint Exchange Program

Table 2 shows the calculation of the recovery rate, based on the volume of paint collected as a function of volume of paint sold in PEI in 2015.

Table 2: 2015 Paint Sales, Residual Recovery Volume and Recovery Rate

| | Total |
|-----------------------------------|---------|
| Sales (litres) | 901,652 |
| Residual Recovery Volume (litres) | 78,111 |
| Recovery Rate | 8.7% |

3.2 Collection Sites

As of December 31, 2015, six collection sites participated in the Program. All six collection sites are operated and managed by Island Waste Management Corporation. See Table 3 for the list of collection sites. Appendix 2 contains a provincial map of the collection site locations.

Table 3: 2015 PEI Collection Sites

| Collection Site | Address | City |
|-----------------|----------------------------|--------------------|
| GreenIsle | 8 Superior Crescent | Charlottetown |
| Brockton | 2202 Dock Road Rte # 150 | Elmsdale |
| New London | 10142 Rte #6 | Green Gables |
| Murray River | 378 Cape Bear Road Rte #18 | Murray River |
| Dingwells Mills | 100 Selkirk Road Rte #309 | Souris |
| EPWMF | 29786 Rte #2 | Wellington Station |

4.0 Processing

This section of the report sets out the following:

- a) The total amount of waste paint processed or in storage;
- b) The percentage of waste paint collected that was reused, recycled, disposed of in an engineered landfill, recovered for energy, contained, or otherwise treated or disposed of;
- c) A description of the types of processes utilized to reuse, recycle, dispose of, recover energy from, contain, or otherwise treat or dispose of waste paint;
- d) A description of the efforts to redesign paint products to improve reusability and recyclability; and
- e) The location of processing or containment facilities for waste paint.

4.1 Waste Paint Processed

All paint collected through the Program was sent to the Laurentide Re-sources Atlantic Inc. facility in Springhill, Nova Scotia for processing. In 2015, a total of 536 tubskids of leftover paint were delivered to Laurentide facility for processing.

During the reporting period, Laurentide processed (i.e., opened, sorted and bulked into shipping containers) 494 tubskids, including additional tubskids that remained in their inventory from 2014.

Table 4 shows the volume of waste paint shipped to processors and the volume processed by collection container (tubskids and drums) and by residual volume (litres). Volumes collected but not shipped, or shipped but not processed, were managed in the following program year.

Table 4: Total Amount Waste Paint Processed in 2015

| Item | Number of Tubskids ¹ | Residual Paint Volume ² | Number of Aerosol Drums | Residual Aerosol Paint Volume ³ | Total Residual Paint Volume |
|-----------------------------|---------------------------------|------------------------------------|-------------------------|--|-----------------------------|
| Shipped to Processor | 536 | 77,238 | 41 | 820 | 78,058 |
| Processed | 494 | 71,185 | 44 | 880 | 72,065 |

(1) Each collection bin measures 42 x 42 x 48” and with a nominal capacity of 108 one gallon containers. The actual number of paint containers per bin varies depending on the mix of paint container sizes, ranging from 250ml – 18.9L capacity.

(2) Based on a rounded conversion of 144.1 L per tubskid determined by the average volume of material generated during processing. Residual paint volume does not include paint handled through the Paint Exchange Program.

(3) Based on a rounded conversion of 20 L per drum determined by the average volume of material generated during processing.

Information on the number of paint containers processed in 2015 at Laurentide Re-sources and the percentage of non-program materials collected is found in Table 5.

Table 5: Metal and Plastic Containers Collected and Recycled in 2015

| Container Type | Collected and Recycled | Processor | Management Process |
|------------------------------------|------------------------|--------------------------------|--|
| Metal | 21 | Tri-Province Recycling, NB | Mixed with other scrap metal and sold as a commodity that is eventually sent for smelting |
| Plastic pails (HDPE 2) | 0.7 | Laurentide Re-sources Atlantic | Combined and baled with other plastics and managed as a commodity for plastics recycling or sent for reuse |
| Plastic paint cans (polypropylene) | 2.2 | Laurentide Re-sources Atlantic | Processed and managed as a commodity for plastics recycling |

4.2 Disposal Method Descriptions

The following sections describe each method the Program used to reuse, recycle, or otherwise treat or dispose of waste paint.

Reuse (Paint Exchange Program)

The Paint Exchange program makes better quality paint returned to collection sites available to the public to take and use at no cost. Paint Exchange was implemented at the Green Isle collection site in September 2015. An estimated 53 litres of paint was given away to consumers at no charge through the Paint Exchange program. Reuse volumes are estimated by assuming that each container is 75% full on average.

Recycling

At the Laurentide Re-sources facility, paint containers are removed from the collection bins, inspected, opened, sorted by type, colour and quality, and poured into shipping containers. Bulked paint of recyclable quality is then transferred to an affiliated processor, Peintures Recuperees du Quebec (PRQ) in Victoriaville, QC. Table provides the quantity of latex paint and alkyd paint that was recycled. The diminishing market for alkyd paint has made it increasingly difficult to recycle. Consequently, the majority of alkyd paint was sent for energy recovery and limited amounts of alkyd paints were recycled.

Table 6: Quantity and Type of Paint Recycled

| Type | Litres | Percentages |
|-------------|--------|-------------|
| Latex Paint | 43,186 | 80.6% |
| Alkyd Paint | 10,399 | 19.4% |
| Total | 53,585 | 100% |

Energy Recovery

Not all oil-based paint collected is of suitable quality for recycling. In some cases the paint may be in the form of skins or sludge, undesirable colour, contaminated or of the wrong chemistry for paint recycling. In addition, regulations such as the Federal VOC Regulations, require more stringent limits on certain chemical constituents, which tend to be found in higher concentrations in older paints, making it difficult to recycle solvent-based paint. The market for recycled solvent-based paint is significantly smaller than that for water-based products and demand continues to decline.

Due to the high solvent content of oil based paints, oil based paints are suitable for energy recovery. Through the process of fuel blending, some of the oil based paint collected by the program that is not suitable for paint recycling, is used as an alternative energy source in applications such as permitted incinerators. During the reporting period, 7,007 litres of alkyd paint and paint from paint aerosols were blended with other fuels and utilized for energy value at licensed facilities.

Landfill

The sorting and bulking of the latex paint by Laurentide Re-sources generated 11,480 litres of non-recyclable latex sludge/solid which were solidified and disposed of at a synthetic-lined landfill cell with leachate collection.

Incineration

During the reporting period, no material went for incineration.

4.3 Percentage of Waste Paint by Disposal Method

Table 7 shows the breakdown of waste paint collected that was reused, recycled, recovered for energy, disposed of in an engineered landfill, contained, or otherwise treated or disposed of. Each amount is shown in litres and in a percentage.

Table 7: Waste Paint by Disposal Method

| Method | Volume (litres) | Percentage |
|-----------------|-----------------|-------------|
| Reuse | 53 | 0.1% |
| Recycle | 53,585 | 74.3% |
| Energy Recovery | 7,007 | 9.7% |
| Landfill | 11,480 | 15.9% |
| Incineration | 0 | 0% |
| Total | 72,125 | 100% |

4.4 Design for Environment

The paint and coating industry is continually pursuing innovations in product formulations that strike a balance between sustainability, health and safety and performance. This is done working in concert with key agencies such as Health Canada, Environment Canada and numerous standard-setting organizations. An example of industry’s sustainability initiatives includes involvement with the federal Chemicals Management Plan, assessing chemicals in commerce for all industry sectors including paint and coatings. This comprehensive federal government initiative evaluates risks associated with substances contained in products and intended uses or applications of the product. These risk assessments are done with a view to banning the highly toxic substances that are considered dangerous to human health and the environment or managing the risks in the ones that are deemed to be less harmful.

Where toxicity in chemicals is considered potentially harmful to human health or the environment, a risk management approach is required to permit continued use of the substances contained in products like paint and coatings. This may result in regulations, pollution prevention plans, codes of practice or compliance agreements and ultimately reformulation or re-design of products for the marketplace, which reduces or eliminates negative impacts. We have seen these measures lead to important benefits such as the reduction of low-level emissions from Volatile Organic Compounds (VOC) in paints with most paints now containing low or no VOC content.

The manufacturing of paint continues to shift from solvent-based paints to water-based paints due to a number of factors, including:

- Advanced water-based coating technology providing similar product performance as solvent-based technology

- Regulatory influences such as Environment Canada’s *Volatile Organic Compound (VOC) Concentration Limits for Architectural Coatings Regulations* (P.C. 2009-1535) which sets limits for VOC for a number of coatings including architectural coatings.

These new regulations require coatings manufacturers to switch to low-VOC formulations. Waterborne paints now make-up more than 90 percent of paint products in the market. In addition, the Program utilizes the following tools to increase the amount of reuse of leftover paint and minimize the environmental impact of residual paint where possible:

- Variable eco fees aligned with container size in some jurisdictions; and
- Operation of a paint exchange program whereby leftover paint is made available to the public free of charge.

4.5 Location of Processing Facilities

The following is a list of facilities contracted by the Program to handle and process program product.

| | |
|--|----------------------|
| Hebert’s Recycling Inc. 53 Walsh Avenue Miramichi, NB E1N 3A5 | Containment Facility |
| Laurentide Resources Atlantic Inc. 100 Main Street Springhill, NS B0M 1X0 | Processing Facility |
| Société Laurentide Inc. 345 Bulstrode Street Victoriaville, QC G6T 1P7 | Processing Facility |

5.0 Communications and Education

Product Care Association implemented a communication and education program to educate consumers in accordance with regulatory requirements. The following sections provide details regarding the communication and education program for 2015.

5.1 Website

Product Care Association operates a consumer-facing brand, ReGeneration, through which it engages program end-users through numerous communications platforms. The central consumer information hub for ReGeneration is the website, ReGeneration.ca, which is home to the following bilingual content for the Prince Edward Island PaintRecycle program:

- Depot finder (a map displaying locations of the collection sites – see Appendix 2)
- Depot hours of operations
- Information for trade painters (i.e., a list of collection sites that accept large volumes);
- Program product lists
- Other information (e.g., a description of the paint exchange program).

An estimated 110,372 unique visitors utilized regeneration.ca during the 2015 calendar year. Additionally, ReGeneration.ca is linked from the Island Waste Management Corporation's website.

5.2 Point of Sale (PoS) and Point of Return (PoR) Material

In 2015, PCA redesigned and distributed both PoS and PoR materials as requested by retailers and collection sites. The following materials are available for reorder through our online order form (see Appendix 3 for examples)

- 5x8 Rack Cards
- 11x17 Posters
- 4x3 Outdoor Collection Site signage
- Retail floor decal
- Retail shelf talkers

5.3 Program Hotline

Product Care operated a bilingual "hotline" with a toll-free telephone number 1-888-772-9972 by which consumers were able to obtain information about the program. In addition, Island Waste Management Corporation (IWMC) also responded to all consumer inquiries regarding the program through a telephone, email and online service system.

5.4 Yellow Pages Advertising

PCA continued an Atlantic Canada targeted digital campaign via YP Group, including syndicated Facebook posts, targeted digital display ads, and smart digital display (re-serving impressions to pre-qualified audience). Digital ads were specifically generated to Internet users who performed online searches related to the purchase, use and disposal of paint products in Prince Edward Island.

Additionally, our Facebook advertising campaign pursued a “gated” strategy, which is to say, content viewable by residents of Prince Edward Island was relevant to that audience specifically, and was not necessarily seen by audiences in other provinces (See Appendix 4 for example)

5.5 Radio Campaign

4 week radio campaign aired from April 6th, 2015 to May 2nd, 2015 on Hot 105.5 and Ocean 100.3FM (the only two stations that broadcast to the entire island). Market was saturated the first and last week with information about the LightRecycle program that launched in 2015, while a reminder to recycle leftover paint aired in between.

5.6 TV Campaign

A six-month, province-wide campaign with Global TV began to air on June 29, 2015 and ended on December 18, 2015. Community PSAs: local talent voiced 15-second “info-commercial” style spots educating viewers on paint recycling. Also, heavy rotation of 30-second traditional commercial spots aired on prime time during high viewership programming.

5.7 Partnership

Product Care has contracted with Island Waste Management Corporation (IWMC) to promote the PEI paint recycling program to the public through the following methods:

- Link to Regeneration.ca available through IWMC’s website
- Distribution of a biannual newsletter & special disposal guide to each household in PEI
- Weekly newspaper columns in two daily newspapers and one weekly French newspaper, as applicable
- Promotion through IWMC’s customer service helpline.
- Dozens of community presentations
- Posters at Waste Watch Drop-Off Facilities

- Supported a campaign for a local watershed group where pamphlets were hand-delivered and practices explained to each resident
- Provided support on PEI for Regeneration’s Paint the Change contest & follow up with media for winner
- Provided support and transportation at both Old Home Week in Charlottetown and the Lobster Festival in Summerside (setting up display, checking on it, then dismantling)
- Developed signage for Paint Exchange Program at our drop-off facilities
- Updated Participant Guide for Businesses to help promote free paint disposal
- Updated Sorting Guides to reflect paint product recycling
- Developed graphics for the Sorting Game (offered to groups, schools & non-English residents to facilitate learning how to sort)
- Facebook promotion
- Handed out promotional material at various community outreach events

6.0 Financial Information

Table 8 identifies the key 2015 financial performance indicators for the Program.

Table 8: PEI Paint Recycling Program Financial Information

| (\$'000) | 2015 |
|--|------------|
| Total PaintRecycle Revenue | 231 |
| Program Operations | 222 |
| Administration, Education, Public Awareness & Communications | 65 |
| Total Operating Expenses | 287 |
| Surplus/(Deficit) | (56) |
| Cumulative Surplus/(Deficit) | (113) |

Appendix 1 – PEI’s 2015 PaintRecycle Environmental Handling Fee Rates

| Paint Container Size | 2015 Rates |
|--------------------------|------------|
| 100ml to 250ml | \$0.25 |
| 251ml to 1 litre | \$0.50 |
| 1.01 litres to 5 litres | \$1.00 |
| 5.01 litres to 23 litres | \$1.95 |
| Aerosol paint (any size) | \$0.30 |

Appendix 2 – Product Care Association’s Collection Map

Below is a snap shot of the new collection site locator tool available on regeneration.ca.

Collection Site Locator

Our collection sites are here to help you recycle your unwanted, leftover and broken products. Make sure to select the category and collection option that best suits your needs.

Select product: Paint

Enter a city or postal code: Prince Edward Island, Cana

Refine distance: 0km, 50km, 100km

There are 6 paint location(s) near you

- 1 New London** 6.15 km
10142 Route 6
New London, COA 1M0
Tues & Thurs 8:00am - 4:30pm
Sat 8:00am - 12:30pm
Mid-June - Aug:
Mon, Tues & Thurs 8:00am - 4:30pm
Sat 8:00am - 2:00pm
902-886-7425
- 2 Charlottetown** 33.51 km
- 3 Summerside**
- 4 Alberton**
- 7 Souris**
- 8 Murray River**

Map data ©2016 Google

Appendix 3 – PoS and PoR Materials

English Poster 11"x17"



French Poster 11"x17"



Shelf Talker 10"x2"

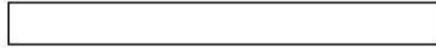
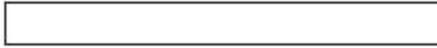


French Shelf Talker 10"x2"



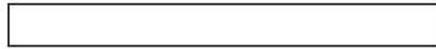
English Retail Rack Card 5" x 8"

French Retail Rack Card 5" x 8"



English Depot Rack Card 5"x8"

French Depot Rack Card 5" x 8"



Appendix 4 – Sample Facebook Post

