PCR Plastic Reporting Guidance Document

38 M.R.S. §1615 *Plastic beverage containers* requires all initiators of deposit[1] and spirit manufacturers[2] that sell, offer for sale, or distribute for sale plastic beverage containers in or into the state of Maine to annually report on the weight of plastic beverage containers[3] sold into the state and the weight of post-consumer recycled (PCR) plastic[4] in those containers.

The Department distributes an online reporting form to IODs and spirits manufacturers via the email address provided in the Beverage Container Label Registration and Licensing Portal, typically around March 1st. If you have not received the form and believe you need to report, please contact recycledcontent@maine.gov.

This document provides guidance on how to calculate the plastic weights required for this reporting. Throughout your calculations:

- Do not round any numbers until you reach your final answer.
- Be careful with your units. A conversion table is provided below for your convenience.

Conversion Table		
1 gram = 0.035 ounce	1 ounce = 0.0625 pound	1 US ton = 2000 pounds
1 gram = 0.0022 pound	1 pound = 16 ounces	1 metric ton or tonne = 2,204.62 pounds

[1] An **initiator of deposit** is a manufacturer, distributor or other person that initiates or is required to initiate under section 3103 a deposit on a plastic beverage container containing a beverage other than spirits.

[2] A **spirits manufacturer** is an in-state rectifier, distillery or small distillery licensed under Title 28-A, section 1355-A that produces spirits contained in a plastic beverage container; or an out-of-state spirits supplier that transports spirits contained in a plastic beverage container into the State or causes such spirits to be transported into the State and has been issued a certificate of approval under Title 28-A, section 1381.

[3] **Plastic beverage container** means a non-refillable beverage container, as defined under Maine's bottle redemption program, that is made wholly or in large part of plastic. The weight of a plastic beverage container does not include the weight of labels and lids.

[4] **Post-consumer recycled plastic or PCR plastic** is plastic produced from the recovery, separation, collection and reprocessing of plastic that was originally sold for consumption and that would otherwise be disposed of or processed as waste. "Post-consumer recycled plastic" does not include post-industrial plastic or pre-consumer plastic.

Instructions for estimating sales into Maine

In order to report your PCR and NON-PCR plastic, you need to know or estimate your sales into Maine. This sales data is the basis for calculating your plastic weights.

- If you are the sole distributor of a beverage into the State or receive reporting on Maine-specific sales from all routes to market by which beverages are sold into the State, report Maine-specific sales. Please note that this is not the same as the units redeemed that may be reported to you by a commingling group or pick-up agent. This number must reflect total units sold into the State.

- In the absence of Maine-specific sales data, an initiator of deposit or spirits manufacturer must separately estimate the number of beverage containers sold into Maine for each route to market that may sell, offer for sale, or distribute for sale in or into the State. For each route to market, estimates must assume equal per capita sales into each state into which beverages are distributed. Initiators of deposit and spirit manufacturers must report, for each route to market, the distributor, the distribution area, and the total number of units distributed through that network.

For example, the fictional company Big City Lemonade, with the following three routes to market, should estimate its sales accordingly:

- Route 1 consists of direct-to-consumer sales of 1,000 plastic beverage containers sold into Maine; no need to estimate.

- Route 2 is through a regional retailer that received 100,000 plastic beverage containers and has stores throughout Maine, New Hampshire, and Vermont. To estimate the portion of the 100,00 containers sold to Maine, Big City Lemonade would utilize the following formula:

$$Maine\ sales\ =\ Regional\ sales\ x\ \frac{Maine's\ population}{Regional\ population}$$

$$Maine\ sales\ =\ (100{,}000\ containers)\ x\ \frac{1{,}362{,}359\ ME\ pop.}{3{,}382{,}965\ \ Regional\ pop.}$$

$$Maine\ sales = 40{,}271\ containers$$

- Route 3 is through a wholesaler that received 5,000,000 plastic beverage containers which it resold throughout the country. To estimate the portion of the 5,000,000 containers sold to Maine, Big City Lemonade would utilize the following formula:

$$Maine\ sales\ =\ National\ sales\ x\ \frac{Maine's\ population}{National\ population}$$

$$Maine\ sales\ =\ 5{,}000{,}000\ containers\ x\ \frac{1{,}362{,}359\ ME\ pop.}{331{,}449{,}281\ US\ pop.}$$

Maine sales = 20,552 containers

Note: Sales from a given route to market cannot be considered national sales if beverages are not being sold to all states via that route.

In this example, the estimated Maine sales are:

ME sales = 1,000 + 40,271 + 20,552 = 61,823 containers

Instructions for calculating PCR plastic

The way you calculate PCR and NON-PCR plastic sent to Maine will depend on the data available. We detail two acceptable methods below. Alternative methods are also allowed. If you use an alternative method, you must provide detailed information on the calculations performed.

- If you know the amount of PCR and NON-PCR plastic bought to make plastic beverage containers for the UPCs on which you are reporting, use Method 1 to calculate PCR and NON-PCR plastic.
    - Note: If the PCR or NON-PCR plastic bought was used to make plastic beverage containers for UPCs on which you do not initiate deposit in Maine or for which you are not the spirits manufacturer, do not use Method 1.

- If you know the % PCR plastic in plastic beverage containers for the beverages on which you are reporting, use Method 2.

- If you use an alternative method, provide detailed information on the calculations performed. The detailed information you provide will allow us to identify alternative reporting methods that can be used going forward.

Method 1: If you have data on the amount of PCR plastic purchased to make beverage containers for the UPCs on which you are reporting, the total pounds of PCR plastic sent to Maine is found by using the following equation.

$$Lbs\ PCR\ to\ ME\ =\ \frac{(lbs\ PCR\ purchased)\ x\ (\#\ containers\ sent\ to\ ME)}{(Total\ containers\ made\ with\ the\ PCR)}$$

Note: If PCR content varies with geography, for instance if containers sent to Maine have a different percentage of PCR than containers sent to other regions, PCR and NON-PCR plastic purchased must be specific to that purchased and used to manufacture the beverage containers that include those sent to Maine. For example, if you utilize two bottling manufacturers, one in Pennsylvania and one in Nevada, and Maine bottles come from the Pennsylvania manufacturer, then only PCR and NON-PCR plastic purchased for the Pennsyvania manufacturer should be included in your calculations.

For example, Big City Lemonade purchased 1,750 pounds of PCR plastic to make 140,000 beverage containers. Big City Lemonade used the estimation methods above to calculate 61,823 units sent to Maine

$$Lbs\ PCR\ to\ ME = \frac{(1{,}750\ lbs\ PCR\ purchased)\ x\ (61{,}823\ containers\ sent\ to\ ME)}{(140{,}000\ Total\ containers\ made\ with\ the\ PCR)}$$

Big City Lemonade's total pounds of PCR plastic sent to Maine would be 772.7875, rounded to 773 pounds.

Method 2: If you have data on the percentage of PCR plastic in your plastic beverage containers, the total pounds of PCR plastic sent to Maine is found using the following equation.

$$Lbs.PCR\ to\ ME = (\%\ PCR)\ x\ (\#\ of\ containers\ to\ ME)\ x\ (lbs.per\ container)$$

Note: If the weight or percentage of PCR plastic varies across containers, you need to perform this calculation separately for each set of containers with a given weight and percentage of PCR plastic.

Example 1: Big City Lemonade sold 600 plastic beverage containers to Maine in 2024. Each lemonade bottle is 20% PCR plastic and each empty container weighs 20 grams, cap and label not included.

- Step 1: Convert bottle weight in grams to pounds since you will need to report in pounds

  1 container weighs 20 grams

  1 gram = 0.0022 lb.

  20g x 0.0022 lb. = 0.044 lb./container

- Step 2: Convert the percent PCR plastic into a decimal

  20% x 0.01 = 0.20

- Step 3: Fill in your equation

  Lbs. PCR to ME = (% PCR) x (# of containers to ME) x (lbs. per container)

Lbs. PCR to ME = (0.2) x (600 containers) x (0.044 lbs./container)

- Total pounds of PCR plastic to Maine = 5.28 pounds, rounded to 5 pounds

Example 2: Big City Lemonade sold 600 plastic beverage containers with 20% PCR plastic and 400 plastic beverage containers with 10% PCR plastic. Each empty container weighs 20 grams, cap and label not included.

In this example, since the two container types have different amounts of PCR plastic, perform separate calculations for each container type and then add the results.

- Calculation 1: Find the total pounds of PCR plastic for the 600 containers at 20% PCR plastic. This was done in Example 1, so we know the weight of PCR plastic in those containers is 5.28 lbs. Note that this number is not rounded.

- Calculation 2: Find the total pounds of PCR plastic in the 400 containers at 10% PCR plastic using the same steps as in Example #1.

    - Step 1: Convert container weight from grams to pounds

      1 container weighs 20 grams

      1 gram = 0.0022 lb.

      20g x 0.0022 lb. = 0.044 lb./container

    - Step 2: Convert percent PCR plastic into a decimal

      10% x 0.01 = 0.10

    - Step 3: Fill in your equation

      $$Lbs\ PCR\ to\ ME = (\%\ PCR)\ x\ (\#\ of\ containers\ to\ ME)\ x\ (lbs\ per\ container)$$

      Lbs. of PCR plastic = (0.1) x (400 bottles) x (0.044 lb. /bottle)

    - Lbs. of PCR plastic to Maine = 1.76 lbs.

- Add the weights of both PCR plastic calculations to calculate total PCR plastic to Maine

  (5.28 lbs.) + (1.76 lbs.) = 7.056 lbs. of PCR plastic, rounded to 7lbs.

Instructions for calculating NON-PCR plastic.

Method 1: If you have data on the amount of NON-PCR plastic purchased to make beverage containers for the UPCs on which you are reporting, the total pounds of NON-PCR sent to Maine is found using the following equation.

$$Lbs\ NONPCR\ to\ ME = \frac{(lbs\ NONPCR\ purchased)x\ (\#\ containers\ sent\ to\ ME)}{(Total\ containers\ made\ with\ NONPCR)}$$

Note: If PCR content varies with geography, for instance if containers sent to Maine have a different percentage of PCR than containers sent to other regions, PCR and NON-PCR plastic purchased must be specific to that purchased and used to manufacture the beverage containers that include those sent to Maine. For example, if you utilize two bottling manufacturers, one in Pennsylvania and one in Nevada, and Maine bottles come from the Pennsylvania manufacturer, then only PCR and NON-PCR plastic purchased for the Pennsyvania manufacturer should be included in your calculations.

For example, Big City Lemonade purchased 7,000 pounds of NONPCR to make 140,000 beverage containers. Big City Lemonade used the estimation methods above to calculate 61,823 containers sent to Maine

$$Lbs.NONPCR\ to\ ME = \frac{(7{,}000\ lbs\ NONPCR\ purchased)\ x\ (\ 61{,}823\ containers\ to\ ME)}{(140{,}000\ Total\ containers\ made\ with\ PCR)}$$

Pounds NONPCR to Maine = 3,091.15 rounded to 3,091 pounds

- Method 2: If you have data on the percentage of PCR plastic in your plastic beverage containers, the total pounds of PCR plastic sent to Maine is found using the following equation.

$$Lbs.NONPCR\ to\ ME = (\%\ NONPCR)\ x\ (\ \#\ of\ containers\ to\ ME)\ x\ (lbs.per\ container)$$

Note: If the weight or percentage of PCR plastic varies across containers, you need to perform this calculation separately for each set of containers with a given percentage of PCR plastic.

For example, Big City Lemonade sells plastic beverage containers that are 20% PCR plastic and 80% NON-PCR plastic. It sold 600 containers in 2024. Each empty container weighs 20 grams, cap and label not included.

- Step 1: Convert bottle weight in grams to pounds since you will need to report in pounds

1 container weighs 20 grams

1 gram = 0.0022 lb.

20g x 0.0022 lb. = 0.044 lb./container

- Step 2: Convert percent NON-PCR plastic into a decimal

  80% x 0.01 = 0.80

- Step 3: Fill in your equation

  $Lbs.NONPCR\ to\ ME = (\%\ NONPCR)\ x\ (\#\ of\ containers\ to\ ME)\ x\ (lbs.per\ container)$

  Total lbs. of NON-PCR plastic = (0.8) x (600 containers) x (0.044 lbs./bottle)

- Total lbs. of NON-PCR plastic sent to Maine = 21.119 pounds, rounded to 21 pounds