



State of Oregon Department of Environmental Quality

# Rule Concept: Convenience Standards, Collection Targets and Performance Standards for PRO Recycling Services

Plastic Pollution and Recycling Modernization Act (SB 582, 2021)  
Rulemaking Advisory Committee Meeting 4 of 5, Rulemaking 1

Dec. 28, 2022

## Background

This memo provides background information for the Rulemaking Advisory Committee on the topic of convenience standards, collection targets and performance standards for recycling services provided by Producer Responsibility Organization(s) or a coordinating body acting on their behalf.

ORS 459A.896(1) requires producer responsibility organizations to provide for the collection and responsible recycling of covered products identified by the Environmental Quality Commission under ORS 459A.914(1)(b) (the PRO Recycling Acceptance List) “in a way that meets collection targets, convenience standards and performance standards established under ORS 459A.914 . . .” Those standards will first be established by the Commission as part of the current rulemaking (ORS 459A.914(7)).

For context, the materials currently proposed for inclusion on the PRO Recycling Acceptance List include the following:

- Glass packaging
- Steel and aluminum aerosol packaging
- Single use pressurized cylinders (e.g., propane)
- Aluminum foil and pressed foil products
- Shredded paper
- Polyethylene film
- Plastic buckets, pails, and storage containers (HDPE and PP)
- Block white expanded polystyrene
- PE and PP lids
- HDPE package handles (e.g., 6-pack handles)

PROs, as part of their producer responsibility program plan (ORS 459A.875(2)(a)(B)) are required to describe how they will manage and administer a producer responsibility program to meet their obligations under the Plastic Pollution and Recycling Modernization Act, including how they will provide for the collection of covered products on the PRO Recycling Acceptance List and how they will meet convenience and performance standards for those covered products. In their annual report (ORS 459A.887(2)(m)), PROs must provide an assessment of whether they met collection targets, convenience standards and performance standards for these materials, and efforts planned to meet or continue meeting such targets and standards.

Quarterly reporting on material disposition is required by ORS 459A.887(6), and responsible disposition is required by ORS 459A.896(2)). Those requirements are not the topic of this rule concept memo.

In the event of multiple PROs, responsibility for compliance with ORS 459A.896(1) may be assigned to one PRO, or to a coordinating body (see [rule concept on PRO coordination](#)). This rule concept is written under the assumption that a PRO (either the sole PRO, or one PRO that is assigned responsibility for ORS 459A.896(1) on behalf of all other PROs) will describe collection methods in an amendment to its program plan and satisfy annual reporting requirements through its annual report. If multiple PROs form a coordinating body, as described under Rule Concept III of the [coordination proposal](#), the details normally required in an individual PRO program plan (specific to ORS 459A.896(1)) will instead be reported in the proposed coordination plan. This plan will include annual reporting methods which meet the requirements of ORS 459A.887.

## Concepts for discussion at Jan.11, 2023 RAC meeting

DEQ seeks feedback from Rulemaking Advisory Committee members on the following:

- Collection targets
- Convenience standards
- Performance standards

## Collection Targets

### Background

Collection targets refer to the quantities of materials the PRO(s) is obligated to collect in a given program plan year. Targets can be expressed in either absolute (weight) or relative (percentage of generation) terms. Each option presents different challenges:

- An **absolute target** (e.g., “500 tons”) may be best suited for materials where the amount of material available for recycling is known and relatively stable. In the waste management community, the amount of material available is often referred to as “generation”. Generation is the amount of material discarded in total, both via disposal and recovery systems.
- **Relative targets** (e.g., “50 percent of generation”) are useful for materials where generation is not precisely known or changes significantly over time. Determining achievement with the target is more involved than absolute targets. With relative targets, the PRO must report not only the amount of material recycled (the numerator of the collection rate); it must also provide an estimate of generation (the denominator of the collection rate).

The state generally has some of the best generation and recovery data in this nation for materials that have historically been a focus of recycling programs, such as cardboard or PET bottles.<sup>1</sup> However, the state has less data for some other materials. For materials lacking precise baseline data, sales data or estimates may provide a reasonable estimation of generation because most covered products are non-durable and have relatively short lifecycles.

### I. Rule concepts for discussion: Collection Targets generally

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<sup>1</sup> This data comes from two separate sources: 1) a periodic waste composition study, conducted in accordance with ORS 459A.035, which involves statistical sampling of loads of garbage from across the state and sorting those loads into more than 180 different categories; and 2) an annual survey of recycling collectors, processors, and end markets, as detailed under ORS 459A.050. However, not all the items proposed for inclusion on the PRO Recycling Acceptance List align with categories in the waste composition study or material recovery survey, and many of these materials have not been a historic focus of recovery except on a pilot scale.

1. All collection targets should be expressed on a relative basis (percentage of generation) and calculated based on weight (tons or kilograms collected divided by tons or kilograms generated).
2. For each material on the PRO Recycling Acceptance List, the PRO(s) in their annual report(s) shall report the weight of materials collected, an estimate of the weight of materials generated, and the ratio of the two. The collection rate shall be defined as the weight of materials collected (numerator) divided by the weight of materials generated (denominator). If materials do not have collection targets (e.g., shredded paper; see below), only the weight of materials collected must be reported. Per statute, the content of these annual reports will be made available to the public and Recycling Council for their review and is subject to review and approval (or rejection) by DEQ.
3. Because generation is always estimated (as opposed to measured), estimates of generation provided by the PRO shall document all data sources, assumptions, and calculations. In estimating generation, the PRO shall consider primary data gathered by DEQ (e.g., waste composition study, material recovery survey), its own collection records, and other primary data where readily available, as opposed to merely estimating generation based on sales data.
4. Only materials targeted for collection shall count towards the calculation of the numerator in the collection target. Most contamination shall not be included. Incidental contamination that is adhered to the covered product may contribute towards the numerator. For example, paper and foil labels that are adhered to glass bottles may count towards the collection target. Window glass, paper bags, garden hoses, or other contaminants that may be co-collected with the glass bottles shall not count.
5. Only materials collected under PRO collections as provided under ORS 459A.896(1) and rules for convenience standards (see Rule Concepts III - V below) shall count towards the numerator of the collection target. For example, if the PRO meets convenience standards for glass by providing for depot collection in some communities and on-route collection in others, tonnages from both collection modes would count towards the numerator.

## **II. Rule concepts for discussion: Material-specific Collection Targets**

### **1. Glass packaging: Collection target of 45%**

It is difficult to propose collection targets for glass packaging. While glass beverages included in Oregon's bottle bill are exempt from being a covered product, perhaps upwards of 25 percent of those bottles are recycled through non-bottle bill systems (such as curbside recycling and depots). Because glass is easily broken, there is no practical method for a PRO to distinguish non-bottle bill from bottle bill containers.

DEQ also expects that even in areas where glass is not a local government recycling obligation, some local governments will continue to provide for on-route collection of glass.

DEQ proposes to define the collection target for glass as follows:

- Numerator: All glass packaging collected at PRO depots or other collections as provided under ORS 459A.896(1) and all glass collected by local governments or their designated service providers (e.g., on-route collection). While PROs do not provide that collection service, they can influence amounts collected through enhanced outreach and promotion. The provision of on-route collection service for glass by a local government may also substitute for some level of PRO depot service (see Rule Concept V(2) below).

- Denominator: all glass packaging (bottles and jars) generated in Oregon, less bottle bill collections.
- Collection target of 45%. This is based on estimates of recent levels of glass recycling, adjusted downward by approximately 20% to account for the reduced convenience of depots (relative to on-route collection).

2. **Steel and aluminum aerosol packaging: DEQ to approve targets (first to be proposed in the PRO Program Plan)**

At present, Oregon lacks adequate data and experience with separate collection of this material. Therefore, the PRO shall propose a collection target(s) for this material in its program plan (per ORS 459A.875(2)(q)). Per statute, the program plan is subject to review by the public, the Oregon Recycling System Advisory Council, and DEQ. The plan is subject to ultimate approval by DEQ, and if needed DEQ may propose a separate target via rule in a subsequent rulemaking.

3. **Single use pressurized cylinders (e.g., propane): DEQ to approve targets (first to be proposed in the PRO Program Plan)**

Same as “Steel and aluminum aerosol packaging”, above.

4. **Aluminum foil and pressed foil products: DEQ to approve targets (first to be proposed in the PRO Program Plan)**

Same as “Steel and aluminum aerosol packaging”, above.

5. **Shredded paper: No collection target at this time.**

DEQ proposes to not require a collection target for this material at this time. The generation of shredded paper is highly uncertain and difficult to estimate. It is also subject to potentially significant change over time, as more individuals switch to electronic banking and other financial transactions.

6. **Polyethylene film: 25% collection by 2028, 50% collection by 2040 and subsequent years, and targets for all intermediate years based on straight-line interpolation between these two points.**

These proposed targets mirror the plastic recycling goals contained in ORS 459A.926.

7. **Plastic buckets, pails, and storage containers (HDPE and PP): No collection target at this time.**

DEQ proposes to not set a collection target for this material, largely because it overlaps with identical materials that will be collected under the Uniform Statewide Collection List.

8. **Block white expanded polystyrene: DEQ to approve targets (first to be proposed in the PRO Program Plan)**

Same as “Steel and aluminum aerosol packaging”, above.

9. **PE and PP lids: DEQ to approve targets (first to be proposed in the PRO Program Plan)**

Same as “Steel and aluminum aerosol packaging”, above.

**10. HDPE package handles (e.g., 6-pack handles): DEQ to approve targets (first to be proposed in the PRO Program Plan)**

Same as PE and PP lids, above. Further, the PRO may propose to combine these two categories (PE and PP lids; HDPE package handles) for the purpose of collection and reporting collection quantities. At present, Oregon lacks experience with recycling collection of this material, other than limited pilot collection services coordinated by PakTech.

## **Convenience Standards**

### **Background**

Convenience standards refer to the ease and convenience by which waste generators can access recycling service. They may consider location, access, hours of operation for permanent collection points, and frequency for intermittent collection opportunities.

Existing EPR programs in Oregon including Oregon E-Cycles, the architectural paint stewardship program, Drug Take Back, and mattresses (under development) all have different convenience standards required in statute. DEQ considered the experience of PROs, the state, and users with those different types of standards in developing the rule concepts for convenience standards.

DEQ also anticipates that PROs will rely on depots<sup>2</sup> and contract with existing recycling depots or drop off centers<sup>3</sup> when meeting at least a portion of convenience standards.

In the rule concepts below, DEQ uses the term “**collection point**” to refer to a single location where any member of the public may bring a material for the purpose of recycling. It is distinguished from “**drop off center**” or “**depot**” in that a drop off center or depot may provide for multiple collection points, that is, it may accept multiple covered products. The proposed rule will establish a minimum standard for collection points for different materials, not a minimum number of depots. This provides the PRO(s) with maximum flexibility in deciding what types of depot service to provide.

For example, in some communities, the PRO may collect a given material at existing recycling depots. In other communities the PRO may collect the material via return-to-retail, and in others the PRO may establish new depots. These locations might accept one or multiple materials. Some larger communities may be served by all these modes of collection. Regardless, if a community is required to have five collection points for each of ten materials on the PRO Recycling Acceptance List, the PRO might satisfy this requirement with five depots that collect all of the materials, or fifty different locations (five single-material depots for each of the ten materials), or some number in-between those two extremes.

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<sup>2</sup> ORS 459A.914(1)(b) identifies the materials on the PRO Recycling Acceptance List as “covered products of which a producer responsibility organization must provide for the collection through *recycling depot* or mobile collection events as provided in ORS 459A.896” (emphasis added)

<sup>3</sup> The Act states that PROs must provide for the collection of covered products by: “(a) Where possible, first contracting with existing recycling depots or drop off centers to provide for the collection of the covered product; (b) Establishing and operating other drop off centers for the covered product; (c) Establishing and operating collection events for the covered product; or (d) Making other arrangements for the collection of the covered product as described in a producer responsibility program plan.” See. ORS 459A.896(1).

### III. Rule concept for discussion: Defining “existing recycling depots or drop off centers” and “where possible” (ORS 459A.896(1)(a))

1. In the context of ORS 459A.896(1)(a), which requires PROs to “where possible” first contract with “existing recycling depots or drop off centers to provide for collection of the covered product”, DEQ proposes to define by rule “existing recycling depots or drop off centers” as any site located in Oregon that is accepting any recyclable material from the general public at the time the PRO submits its most recent Program Plan or plan amendment, and which also meets any of the following five criteria:
  - a) Used by a local government to satisfy the requirement in ORS 459A.005(1)(a)(A) to provide “a place for collecting source separated recyclable material, including the materials on the uniform statewide collection list established under ORS 459A.914 designated for collection at a recycling depot, located either at a disposal site or at another location more convenient to the population being served”.
  - b) Used by a local government to satisfy the optional opportunity to recycle program element described in ORS 459A.007(1)(g), “Expanded depots for recycling of at least all materials designated for collection at recycling depots on the uniform statewide collection list established under ORS 459A.914 . . .”
  - c) Operated by or at the direction of a Tribal government.
  - d) Located at a site that operates under a valid solid waste permit issued by the DEQ.
  - e) Operated by a local government or a local government’s service provider, as defined in ORS 459A.863(12).

Operators of any such sites have no obligation to collect any of the materials that are uniquely on the PRO Recycling Acceptance List, whereas the PRO(s) does have an obligation to “where possible” first contract with such facilities. Facility operators may choose to contract with a PRO to accept all the materials on the PRO Recycling Acceptance List, only some of those materials, or none.

2. Because the PRO(s) is obligated to contract with such facilities “where possible”, DEQ proposes to define “where possible” as meeting the following four conditions:
  - a) The operator of the existing recycling depot or drop off center is **willing** to contract to provide collection service on behalf of the PRO.
  - b) The operator of the existing recycling depot or drop off center is **able** to contract and to provide collection service on behalf of the PRO.
  - c) The **annual cost** to the PRO to contract for service does not exceed 1## percent of what the PRO would need to pay to provide an alternative collection point serving the same community.
  - d) The operator of the existing recycling depot or drop off site can demonstrate that the cost of reimbursement it is requesting is **reasonable and only pays for marginal (additional) costs** associated with collection of the additional material(s).

DEQ proposes a price premium (1## percent) in (c) above in recognition that there are benefits to providing waste generators with locations where they can bring all of their recyclables for drop-off, as opposed to requiring them to travel to multiple sites. DEQ invites feedback from Rulemaking Advisory Committee members regarding the numeric value of the price premium.

If any of these conditions cannot be met, then the PRO is released from its obligation to contract for service at that site, until the next Program Plan (or coordination plan) goes into effect.

Importantly, even if conditions (c) and/or (d) cannot be met, if the PRO and site operator can voluntarily agree to terms, nothing in this rule concept prohibits them from entering a contract should they both choose to do so.

#### **IV. Rule concepts for discussion: Base and enhanced convenience standards for collection points**

DEQ proposes to establish base convenience standards and also designate some materials on the PRO Recycling Acceptance List for “enhanced” collection convenience.

Materials that qualify for only for a base level convenience standard (number of collection points) are typically generated in smaller quantities and/or less frequently, thereby allowing generators to potentially accumulate the materials for a longer time before needing to take them to a collection point. DEQ proposes to include the following materials for collection at a base level of convenience:

- Steel and aluminum aerosol packaging
- Single use pressurized cylinders (e.g., propane)
- Aluminum foil and pressed foil products
- Shredded paper
- Block white expanded polystyrene

In contrast, materials designated for “enhanced” convenience may be generated in larger volumes and/or more frequently, thereby resulting in more frequent trips to recycle, and justifying a more convenient network of collection points:

- Glass packaging
- Polyethylene film
- Plastic buckets, pails, and storage containers (HDPE and PP)
- PE and PP lids
- HDPE package handles (e.g., 6-pack handles)

#### **Minimum number of collection points**

1. For all covered products on the PRO acceptance lists, the PRO will provide for depot collection at any site described in Rule Concept III(1)(a) – (e) if doing so is “possible” (as defined in Rule Concept III(2)). The provision of a collection point for a covered product at such a facility counts towards the site quotas established in (2) – (5) below.<sup>4</sup>
2. The PRO must provide for at least one collection point in every county in the state for every covered product on the PRO acceptance lists. Additionally, the PRO must provide one additional collection point in each county:
  - a) For counties included in the Metro region: (Clackamas, Multnomah and Washington counties): for every 60,000 residents of that county.
  - b) In all other counties: for every 40,000 residents of that county.

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<sup>4</sup> Note that in some communities, this may result in more collection points than would otherwise be required based on population quotas. For example, Tillamook County might only qualify for one collection point for each material based on the County’s population (see below), but the presence of three existing recycling depots might result in three collection points, if the standard of being “possible” is met.

However, for materials designated for enhanced convenience, the standards are one additional collection point (per material):

- c) For counties included in the Metro region: for every 45,000 residents of that county.
  - d) In all other counties: for every 30,000 residents of that county.
3. Any collection points used to satisfy the quotas described in (1) or (2) above can be used to satisfy site quotas established in (4) and (5) below.
4. The PRO must provide for at least one collection point in every city in the state for all covered products on the PRO acceptance lists:

- a) For cities inside the Metro region with a population of 14,000 or more.
- b) For cities outside the Metro region: with a population of 7,000 or more.

For materials designated for enhanced convenience:

- c) For cities inside the Metro region with a population of 8,000 or more.
  - d) For cities outside the Metro region: with a population of 4,000 or more.
5. Additionally, the PRO must provide, for all materials on the PRO Recycling Acceptance List, one additional collection point in each city:

- a) For cities inside the Metro region: for every 75,000 residents of that city.
- b) In all other cities: for every 35,000 residents of that city.

For materials designated for enhanced convenience:

- c) For cities inside the Metro region: for every 50,000 residents of that city.
- d) In all other cities: for every 30,000 residents of that city.

### **Collection point distribution**

- 6. When more than one collection point for any material is required within a single city, the PRO shall distribute the sites within the city so that no major sections of the city lack convenient service relative to other areas of the city.
- 7. When more than one collection point for any material is provided within a single city, at least 50 percent of all collection points for each material used to satisfy (2), (4) and (5) shall be located within a 500 foot walking distance of transit service, if the city is served by transit service.

### **Days and hours of operation**



8. Every collection site required by standards (2) – (5) shall be available to the public at least \_\_\_ days per week (with exceptions provided for on legal holidays) and at least \_\_\_ hours per day. DEQ invites feedback from Rulemaking Advisory Committee members on these details.

#### **Notification of changes and continuity of services**

9. A PRO choosing to discontinue service at a collection point must provide the collection point operator and DEQ with at least three months advance notice. The PRO must also provide concurrent notice to the users of the collection point by means of prominently placed signage at the site, and via whatever Internet-based content the PRO uses to promote the site to the public. All required notices shall include the date at which service will be discontinued and the location of other nearby collection points or information about the alternative collection service that will substitute for it.
10. If the operator of a site described in standard (1) above, and which contracts with a PRO to provide for collection service, no longer meets any of the conditions in Rule Concept III(1)(a) – (e), the PRO shall not discontinue service at that site until the earliest of: a) the expiration of its contract with that site operator; b) the end of the existing Program Plan period; or c) mutual agreement by both parties, subject however to the public notification requirement in standard (9) above.
11. If a non-PRO recycling depot or drop-off site gains status by newly meeting any of the conditions in Rule Concept III(1)(a) – (e) the PRO will have 12 months to meet its obligation under standard (1) above. If the addition of this new service results in the PRO now exceeding population-based service quotas under standards (2) – (5) above, then the PRO may discontinue service at another collection point in the same community, subject to notification standards in (9) above.

#### **Additional discussion**

DEQ estimates the minimum number of collection points that would be required if the PRO was unable to enter contracts with any existing site operators (standards 2 – 5 above) as approximately 107 collection points statewide for base materials and 135 collection points statewide for materials designated for enhanced convenience. See Appendix 1 for more detail.

#### **V. Rule concepts for discussion: Other rule concepts related to convenience standards**

1. If a covered product placed on the PRO Recycling Acceptance List by administrative rule is subsequently added to the Uniform Statewide Collection List by the mechanism provided for in ORS 459A.914(4)(b), then the PRO must only meet obligations to include collection at existing recycling depot or drop-off sites as described above under Rule Concept III(1)(a) through (e).

This occurs only in cases where such sites continue to collect the material source separated, as opposed to commingled with other materials listed on the Local Government Recycling Acceptance List.

2. A PRO may deviate from the basic convenience standards (2) – (5) described in Rule Concept IV above, if it provides for an alternative collection system as described in a Program Plan or plan amendment that is approved by the DEQ.

As an example of how this might work, a PRO might work with the City of Portland if it wishes to continue providing for on-route collection of glass to single-family and multi-family properties. If the PRO provides for an alternative collection system in its plan, then it would be excused from providing for additional depots out in the community. That alternative collection system might include an agreement with the local government to provide financial or other assistance for on-route collection. The PRO would still need to provide for glass collection at depots satisfying the criteria in Rule Concept III(1)(a) through (e), but it would be excused from providing additional community depots as needed to meet population-based quotas

Note that such an alternative collection system does not excuse the PRO from meeting responsible disposition requirements as described in ORS 459A.896(2).

## **Performance Standards**

### **Background**

Performance standards, as the name implies, define the types of outcomes that the PRO(s) are required to achieve in meeting recycling obligations. PROs describe how they will achieve and maintain performance standards as part of their program plan, and then in their annual report describe how such standards have been met, and if not, what corrective actions will be taken to do so.

Performance standards can apply to all types of recycling services provided by the PRO under ORS 459A.896(1), including services that the PRO provides directly as well as those which it contracts for. In cases where the PRO satisfies convenience standards using contracts (for example, with existing depots, or with retailers providing a return-to-retail service), performance standards must still be met, and can be included in contract terms.

In most cases, DEQ is proposing outcome-based performance standards, in order to provide PROs with greater flexibility and adaptability to meet unique conditions in different areas of the state. Outcome-based standards (as opposed to prescriptive standards) provide the PROs with greater say in decision-making, subject however to review and approval of methods as part of their program plan.

### **Staffing at collection points**

Generally speaking, staffing offers several advantages, especially related to reductions in contamination and illegal dumping. However, operators of existing programs might utilize a variety of techniques to achieve quality outcomes without requiring on-site staffing during all hours of operation.

DEQ is not proposing to require staffing at all collection points with the exception of aerosol containers or pressurized cylinders, discussed below.

### **Post-consumer disposition of collected materials**

Standards related to post-consumer disposition of collected materials (including reporting and responsible disposition) for most materials are included in other rule concepts (such as the [rule concept](#) for responsible end markets) and so are not repeated here. A few special standards related to disposition of specific materials are proposed below. Standards related to recordkeeping are contained in ORS 459A.962.

## **VI. Rule concepts for discussion: Performance standards generally**

1. **Methods.** The PRO in its producer responsibility program plan shall describe how it will achieve and maintain collection targets, convenience standards, and performance standards. Specific to performance standards, the Program Plan shall include a description of how the PRO will monitor sites and services on a regular basis to ensure compliance, and reporting of any deviations from plan and standards to DEQ in a timely manner.
2. **Free to the public.** No fee shall be charged to service users for any depot or drop off services or collection events as provided under ORS 459A.896(1)(a) through (c). If depot collection is provided at a location that normally charges users to access the site (such as a gate fee at a solid waste transfer station), the PRO shall arrange to waive that fee for the delivery of any covered products on the PRO Recycling Acceptance List.
3. **Promotion.** The PRO shall promote the availability of collection opportunities and how to properly prepare materials and engage in collection opportunities using methods and materials that are clear, culturally relevant, accessible, and understandable to diverse audiences. For each material on the PRO Recycling Acceptance List, information on the location and hours of operation for all collection points, as well as information on how to properly prepare materials, shall be made available to the public via a website that is maintained and available in multiple languages.
4. **Accessibility.** Collection services shall be accessible for users of all abilities, and safe to interact with for users and service operators. Sites that are unstaffed during some or all hours of operation shall provide a prominently featured hotline number and protocols for quickly responding to concerns regarding site safety, environmental impacts, or accessibility.
5. **Contamination prevention and management.** Collection services will be offered and operated in ways that minimize acceptance of contamination, and which minimize the presence of contamination in outbound materials. The PRO's Program Plan must include protocols for managing materials delivered to collection points or events that are not on the PRO Recycling Acceptance List (either screening and then accepting and managing appropriately or rejecting and providing service users with information on proper recycling or disposal options).
6. **Quality assurance.** Collection services (depots, events, etc.) will be operated in a manner to maintain the quality and marketability of collected materials. In some locations, this may require that certain materials be collected indoors or under cover.
7. **Litter mitigation.** Collection services and associated handling of collected material will be operated in a manner to prevent litter and other pollution to air, water, and land.
8. **Compliance.** The PRO (and contractors) will comply with all local, state, and federal regulations.
9. **Self-reporting.** The PRO will promptly report to DEQ any incidents that meaningfully impact the availability or quality of service, or which require the presence of emergency responders (policy, medical, fire).

## **VII. Rule concepts for discussion: Additional performance standards specific to collection events**

1. Public education and outreach. The PRO shall coordinate with relevant local governments and service providers regarding public outreach and promotion in advance of any collection event.
2. Staffing and resourcing. The PRO shall include in its Program Plan or a plan amendment detailed instructions for policies and processes to ensure adequate staffing, managing traffic flow, ensuring safety, and contingency plans for responding to larger-than-expected turnout.

## **VIII. Rule concepts for discussion: Material-specific performance standards**

### **Expanded polystyrene**

1. Collection and transportation of expanded polystyrene (EPS) will be conducted in a manner designed to reduce life cycle environmental impacts. Collected EPS shall be densified (compressed into a brick-like form, with most air removed) before transporting EPS a distance greater than 75 miles, or an alternative threshold distance if contained in an approved PRO program plan. (Undensified EPS, which by volume is primarily air, can quickly fill a transport vehicle, resulting in high emissions relative to the weight of plastic actually recovered. The value of 75 miles is DEQ's approximation of the breakeven point where the social costs [excluding transactional costs] of long-haul transport of undensified EPS exceed the social costs of pollution from the densification process plus long-haul transport of densified EPS.)
2. EPS shall be densified using technologies chosen after consideration of impacts on yield, transport quantities (density), and worker safety and exposure. Densification shall occur in a manner that minimizes worker exposure to air toxics. A PRO wanting to use thermal densification technology must first include in its Program Plan or a plan amendment an assessment of potential impacts to workers and methods that will be followed to minimize such impacts. That plan or plan amendment must first be approved by DEQ.

### **Aerosol containers and pressurized cylinders**

3. Aerosol containers and pressurized cylinders may contain contents that qualify as hazardous waste. Containers generated from households are exempted from hazardous waste regulations under RCRA. Containers generated from very small quantity generators (VSQG) are similarly exempted. To avoid obtaining status as a universal waste processor or hazardous waste treatment, storage, and disposal facility, PROs shall not accept aerosol containers or pressurized cylinders from any nonresidential generator unless that generator affirms in writing its status as a VSQG. This will require that any collection points accepting these materials must be staffed and have acceptance protocols in place to ensure that the PRO does not accept any non-exempt hazardous waste.
4. Because the contents of some aerosol containers may demonstrate the characteristics of being hazardous (e.g., flammable or toxic), the PRO shall "over-manage" aerosols according to universal waste standards. Aerosol containers shall be punctured and their contents safely removed, characterized, and managed in accordance with hazardous waste standards where appropriate, prior to sending the empty container to be recycled. The handler of the containers shall meet the standards of 40 CFR 273.13(e)(4) which include but are not limited to following a written procedure for puncturing cans, conducting a hazardous waste determination of all contents, puncturing the cans with a device designed for that purpose, handling waste from the cans safely and recycling the metal.

5. Because pressurized cylinders (such as propane canisters) may contain contents that demonstrate the characteristics of being hazardous (e.g., flammable), the PRO shall “over-manage” any accepted pressurized cylinders as hazardous waste. Cylinders shall be processed by a regulated treatment, storage, and disposal facility, which shall drain and manage contents according to hazardous waste standards, then send the containers to a metal recycler.

## Appendix 1. Minimum number of collection points for materials on PRO Recycling Acceptance Lists – December 2022 draft

DEQ does not have information about which existing recycling depots or drop-off sites meeting any of the criteria in Rule Concept III(1)(a) – (e) will be willing and able to collect materials under contract to a PRO, which materials they might be willing to collect, nor whether the parties will be successful at executing a contract. In recent conversations, operators of several depots informed DEQ that they are interested in contracting with a PRO to collect some or all of the materials on the proposed PRO Recycling Acceptance List. Meanwhile, operators of several other depots informed DEQ that they are not able, or not interested, in doing so. This makes it difficult to estimate with certainty how many collection points for different materials PROs will ultimately be required to provide.

However, setting aside the requirements in Rule Concept IV(1), a review of standards (2) – (5) makes it possible to estimate the number of collection points for each covered product, using 2021 population estimates. This initial estimation, provided in Table 1 below, provides an estimate of the minimal number of collection points that would be required if the PRO was unable to enter contracts with any existing site operators.

**Table 1.**  
**Estimated Number of PRO Collection Points for Each Material**  
**Based on Standards (2) – (5)**

<b>County City</b>	<b>Materials on “Basic” List (e.g., aerosol containers, EPS foam)</b>	<b>Materials on “Enhanced” List (e.g., glass, PE film plastic)</b>
<b>Baker</b>		
Baker City	1	1
Additional collection points	0	0
<b>Benton</b>		
Corvallis	2	2
Philomath	0	1
Additional collection points	0	0
<b>Clackamas</b>		
Canby	1	1
Estacada	0	1
Gladstone	0	1
Happy Valley	1	1
Lake Oswego	1	1
Milwaukie	1	1
Molalla	1	1
Oregon City	1	1
Sandy	1	1
West Linn	1	1
Wilsonville	1	1
Additional collection points	0	0
<b>Clatsop</b>		
Astoria	1	1
Seaside	1	1
Warrenton	0	1
Additional collection points	0	0
<b>Columbia</b>		

St. Helens	1	1
Scappoose	1	1
Additional collection points	0	0
<b>Coos</b>		
Coos Bay	1	1
Coquille	0	1
North Bend	1	1
Additional collection points	0	0
<b>Crook</b>		
Prineville	1	1
Additional collection points	0	0
<b>Curry</b>		
Brookings	0	1
Additional collection points	1	0
<b>Deschutes</b>		
Bend	3	4
Redmond	1	2
Additional collection points	1	0
<b>Douglas</b>		
Reedsport	0	1
Roseburg	1	1
Sutherlin	1	1
Winston	0	1
Additional collection points	0	0
<b>Gilliam</b>		
Any collection points	1	1
<b>Grant</b>		
Any collection points	1	1
<b>Harney</b>		
Any collection points	1	1
<b>Hood River</b>		
Hood River	1	1
Additional collection points	0	0
<b>Jackson</b>		
Ashland	1	1
Central Point	1	1
Eagle Point	1	1
Medford	3	3
Phoenix	0	1
Talent	0	1
Additional collection points	0	0
<b>Jefferson</b>		
Madras	1	1
Additional collection points	0	0
<b>Josephine</b>		
Grants Pass	1	2
Additional collection points	1	0
<b>Klamath</b>		
Klamath Falls	1	1
Additional collection points	0	0
<b>Lake</b>		
Any collection points	1	1
<b>Lane</b>		
Cottage Grove	1	1
Creswell	0	1

Eugene	5	6
Florence	1	1
Junction City	1	1
Springfield	2	2
Veneta	0	1
Additional collection points	0	0
<b>Lincoln</b>		
Lincoln City	1	1
Newport	1	1
Additional collection points	0	0
<b>Linn</b>		
Albany	2	2
Lebanon	1	1
Sweet Home	1	1
Additional collection points	0	0
<b>Malheur</b>		
Ontario	1	1
Additional collection points	0	0
<b>Marion</b>		
Aumsville	0	1
Keizer	1	2
Salem*	5	5
Silverton	1	1
Stayton	1	1
Woodburn	1	1
Additional collection points	0	0
<b>Morrow</b>		
Boardman	0	1
Additional collection points	1	0
<b>Multnomah</b>		
Fairview	0	1
Gresham	2	3
Portland	9	13
Troutdale	1	1
Additional collection points	1	0
<b>Polk</b>		
Dallas	1	1
Independence	1	1
Monmouth	1	1
Salem*	0	1
Additional collection points	0	0
<b>Sherman</b>		
Any collection point	1	1
<b>Tillamook</b>		
Tillamook	0	1
Additional collection points	1	0
<b>Umatilla</b>		
Hermiston	1	1
Milton-Freewater	1	1
Pendleton	1	1
Umatilla	1	1
Additional collection points	0	0
<b>Union</b>		
La Grande	1	1
Additional collection points	0	0



<b>Wallowa</b>		
Any collection points	1	1
<b>Wasco</b>		
The Dalles	1	1
Additional collection points	0	0
<b>Washington</b>		
Beaverton	2	2
Cornelius	0	1
Forest Grove	1	1
Hillsboro	2	3
Sherwood	1	1
Tigard	1	1
Tualatin	1	1
Additional collection points	2	3
<b>Wheeler</b>		
Any collection point	1	1
<b>Yamhill</b>		
Lafayette	0	1
McMinnville	1	2
Newberg	1	1
Sheridan	0	1
Additional collection points	0	0
<b>Total (Oregon)</b>	<b>107</b>	<b>135</b>

\*Salem is one of several Oregon cities that span more than one county. However, it is the only city with divided population large enough to justify an additional collection site (for materials designated for “enhanced” convenience only). DEQ assumes that this site would be located in Polk County.

Again, it is important to understand that the actual number of collection points for each material will be somewhat higher than the numbers shown here. For example, Tillamook County is home to three recycling depots that already provide for collection of expanded polystyrene foam. Under this rule concept, all three of those sites would be eligible for provision of that service under contract to the PRO, whereas the population-based quotas in Table 1 only provide for one collection site in Tillamook County. A likely outcome is that all three existing sites would attempt to contract with the PRO (under Rule Concept IV(1)) and that one of those sites would also satisfy the population-based requirement under Rule Concept IV(2), resulting in at least three collection points for expanded polystyrene in that County.

The potential for the PRO needing to contract with more sites than shown in Table 1 creates a dynamic that is generally more acute in rural areas of the state. For example, Douglas County operates a network of 11 recycling depots, Klamath County provides 12, and Lane County provides approximately 17 (only one of which is located in the Eugene-Springfield area). In those and similar counties, the PRO may need to contract to provide for more collection points than shown in Table 1. In contrast, the entire Portland metropolitan region has fewer than 10 recycling depots and, given the large population-based quotas in those counties, even if all of those depots sought to contract with the PRO it would not significantly increase the number of depots required.

Considering the opportunity afforded to existing recycling depots, drop-off centers, and conversations with a sample of operators of such depots, DEQ estimates that the total number of collection points for most materials may be more in the range of 130 – 160 (vs. 107 as shown in Table 1) and the number of collection points for materials designated for enhanced convenience may be more in the range of 175 – 195 (vs. 135 as shown in Table 1).

To put these minimum numbers in perspective, as of Nov. 28, 2022, the Oregon E-Cycles Program provided 179 collection sites plus 22 events planned for the year. For 2021, Oregon’s Paint Product Stewardship Program provided 183 drop-off sites plus 35 supplemental sites and events.

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