



Rule Concepts: 4 - Responsible End Markets

Plastic Pollution and Recycling Modernization Act (SB 582, 2001) Rulemaking
Advisory Committee Meeting 1 of 5, Rulemaking 1

Background

This memo provides background information intended to help the Rulemaking Advisory Committee understand the topic of responsible end markets and introduces DEQ's proposed rule concepts.

The Plastic Pollution and Recycling Modernization Act ("Act") includes a requirement that covered products collected for recycling are delivered to "responsible end markets" and managed in an environmentally-protective way according to Oregon's hierarchy of materials management options.¹ These statutory requirements were intended to address the negative environmental, social, economic and health impacts that can result from irresponsible recycling. In an interconnected world, irresponsible recycling can cause negative impacts Oregon's communities, even when the disposition of materials is taking place at an overseas location.

"Responsible end market" is defined as follows in ORS 459A.863: "a materials market in which the recycling or recovery of materials or the disposal of contaminants is conducted in a way that benefits the environment and minimizes risks to public health and worker health and safety."

For PROs, per ORS 459A.869(7), this obligation applies to covered products that are:

1. collected for recycling pursuant to ORS 459A.896 (materials collected by PROs at depots or through mobile collection efforts);
2. identified on the uniform statewide collection list (established under ORS 459A.914) and collected pursuant to a collection program providing the opportunity to recycle;
3. identified on the list of specifically identified materials (established under ORS 459A.917); or
4. recycled in an effort to achieve the statewide plastic recycling goal established under ORS 459A.926.

For products in categories (2) and (4) and managed and marketed by a commingled recycling processing facility, the responsible end market obligation is shared between the PROs and the processing facilities.

Concepts for discussion at July 20, 2022 RAC meeting

DEQ seeks feedback from Rulemaking Advisory Committee members on the following four areas where rulemaking is needed to clarify the obligations related to responsible end markets:

1. Specify which persons in the recycling supply chain are considered the "end market;"
2. Clarify standards for what would constitute a "responsible" end market under ORS 459A.863;

¹ Oregon's hierarchy of materials management is set out in ORS 459.015. It stipulates an overall priority of reduction of negative impacts as driving the choice of an appropriate materials management pathway. When impacts are not known, it establishes a preference for mechanical recycling over other types of recycling, as well as a preference for pathways that displace the production of more impactful materials over those that displace the production of less impactful materials.

3. Set auditing requirements for “responsible end markets;” and
4. Clarify actions that may be considered “practicable” for 459A.869(7) and ORS 459A.896(2), which require a PRO, “to the extent practicable,” to ensure product delivery to responsible end markets with materials managed in an environmentally-protective manner and according to Oregon’s hierarchy.

“Responsible End Markets”

This section of this memo divides the discussion of “responsible end market” into two parts: first, defining what constitutes an “end market” and second, proposing standards for what makes such an end market “responsible.”

Background on “End Markets”

DEQ considered two options for defining “end market”: (1) the producers of recyclate (as examples, a steel mill that produces sheets of steel, or a plastics reclaimer that produces pellets of recycled plastic), and (2) the users of recyclate to produce new products (as examples, a can manufacturer or manufacturer of a plastic children’s toy).

The former option would be simpler to operationalize, as supply chains are shorter and the number of “end markets” smaller. The latter option, meanwhile, more strongly reflects the recycling community’s understanding of where the “market” for recyclate exists, particularly for plastics, i.e., among producers that can drive demand for recyclate by setting higher thresholds for post-consumer recycled content in the packaging that they specify and introduce into commerce.

In defining “end market,” DEQ also considered:

- Whether or not material-specific definitions or examples are needed, as recycling processes vary by type of material; and
- Recent revisions to Oregon state solid waste management policy (ORS 459.015(1)), including:

(h) The purpose of waste prevention, reuse, recycling, composting and waste recovery in Oregon is to conserve resources, reduce pollution and optimize environmental benefits, while taking into consideration the impacts of materials and products across the full life cycle, from raw material extraction to end-of-use management.

(i) It is necessary, in order to protect the health and promote the well-being of all residents in Oregon, to acknowledge and align Oregon’s sustainable materials management policy with principles of environmental and social justice across the full cycle of materials consumed in the state.

(j) Producers of materials sold or distributed in Oregon, regardless of their location, are responsible for creating and implementing appropriate actions that ensure their products and packaging designs consistently reduce negative environmental, health and social burdens across the life cycle of their products and packaging. Such actions include . . . implementing sustainable manufacturing best practices that are more resource-efficient and less environmental harmful and toxic . . .

DEQ also prioritized environmental impact in alignment with Section 1 of the Act, which reflects its legislative intent and emphasizes minimization of unintended environmental impacts across the full life cycle of products.

I. Rule Concept for discussion: Clarify Definition of “End Market”:

1. DEQ proposes to distinguish “end market” by material type in a manner that:
 - a. Extends as far down the supply chain as would make a meaningful difference to the environmental, social, economic and health impacts of materials; and
 - b. Encompasses a material-specific dimension, as recycling processes and their potential for environmental and human health impacts differ by material.
2. For most recycling pathways the end market is defined as the person producing the recycle. Glass and plastics for certain end uses are the exceptions. For plastic recycle to be used in food and beverage applications and children’s toys, DEQ proposes to require accountability further downstream, given the potential for significant environmental and human health impacts associated with the use of post-consumer content during production—namely, the potential for toxics in finished products to be sold and consumed in Oregon.
3. DEQ proposes that end markets by material type are defined as follows:
 - a. Glass: the persons that first use the glass in lieu of a virgin material (downstream of the beneficiation plant, if any, where bottles are crushed), e.g. a bottle manufacturer, fiberglass manufacturer, pozzolan (used to make cement and concrete) producer, etc.
 - b. Metal: the persons that smelt the recycled material and produces ingots, sheet, coil or other materials that are subsequently refabricated into packaging or product.
 - c. Paper: the persons that re-pulp the recycled material either into a pulp product that is sold to paper manufacturers, or to produce paper or paperboard products. In the event that the paper is used in an application that does not involve repulping (e.g., used to produce a wallboard product), the end market would be the entity that uses the waste paper to produce a product that is sold without further transformation or manufacturing.
 - d. Plastic: the persons (typically a reclaimer) that last handle flake or pellet containing recycled plastic prior to sale or transfer to another person that creates a new product either by placing it into a mold or through extrusion or thermoforming². If the plastic recycles are being used to produce packaging for food and beverage applications or for the production of children’s toys, the end market is the persons that place it into a mold for the manufacturer of such packaging or product.

II. Rule Concept for discussion: Proposed Standard for “Responsible”

To be “responsible”, an end market must be:

1. **Compliant:** Follows its own local, state, and national laws and treaty obligations, and is registered and permitted as required by local, state, and national authorities;
2. **Transparent:** Is willing to be named and audited, provides chain of custody documentation tracking materials (originating in Oregon) to disposition, maintains record keeping relevant to chain of custody and material disposition in accordance with ORS 459A.962(7), and promptly documents within the chain of custody any penalties, violations or regulatory orders received.

² Thermoforming is the process of transforming a plastic sheet into a 3-dimensional shape by using heat, vacuum, and pressure. Thermoform containers are produced through this process.

“Disposition” refers to the end market, or any releases to the environment such as to landfill, wastewater, or emissions to air;

3. **Environmentally-sound:** Is willing to be audited and monitored for outdoor air, water and land emissions and disposal, and stores and manages waste and recyclables in a way that avoids release into the environment. This includes demonstrating adequate emergency response and environmental health, safety, and management plans; and
4. **Achieving adequate yields:** Recycles or causes to be recycled x% of each material commodity within a bale, with the remaining material managed in a responsible manner and in alignment with Oregon’s hierarchy of materials management (ORS 459.015).

This standard will apply to all entities in the supply chain post-collection, down to and including the end market.

The variable ‘x’ in the fourth element (achieving adequate yields) is intended to serve as a placeholder for threshold(s) for recycling yield. DEQ requests the Committee’s input on the general concept and intends to revisit the question of setting appropriate thresholds for recycling yields in a subsequent meeting when the related topic of material lists will be discussed. DEQ intends to address expectations of mixed-material processing in setting these thresholds.

Reporting, Auditing, and Enforcement

Background

Statute is fairly comprehensive in requiring PRO reporting on the end markets for the products they bear obligations for. As a result, DEQ does not envision a need for much rule content clarifying reporting requirements. As the accuracy of this reporting is vital to DEQ’s ability to enforce this provision, we propose to require PRO auditing in rule to verify that materials’ physical pathways to their end markets match the reported pathways (through GPS tracking of bales), and to ensure that the end markets meet the standard for “responsible.” DEQ also intends to conduct its own auditing, by spot-checking the PROs and processing facilities. Proposed rule concepts are summarized below.

III. Rule Concept for discussion: PRO auditing and reporting on responsible end markets

1. To demonstrate compliance with the requirement that materials collected for recycling go to responsible end markets, PROs must conduct auditing and provide audit results in annual reporting to DEQ. These reports must demonstrate and certify that end markets meet the definition of “responsible.”
2. Each audit must include the following:
 - a. Results of random bale tracking and a description of how the indicated business/location or businesses/locations (if final disposition occurred at multiple sites) was determined as the “end market;”
 - b. A list of the definitional elements of “responsible,” including relevant local, state, national and treaty obligations applicable to a particular end market;
 - c. Documentation that the end market and intermediary supply chain entities meet all standards established under the definition of “responsible;”
 - d. Documentation of noncompliance with a definitional element of “responsible;”
 - e. Documentation of the auditor’s qualifications; and

- f. Certification and signature from the auditor that the end market meets the definition of “responsible.”
3. All audits must be provided to DEQ and summarized in the annual report.

Practicability

Background

As mentioned above, PROs have an obligation to ensure that, “to the extent practicable,” covered products listed in ORS 459A.867(7) and collected for recycling go to a responsible end market and are managed in an environmentally-protective manner that accords with Oregon’s material management hierarchy. Defining “practicable” in rule will clarify expectations with respect to the program approaches that a PRO could consider, either proactively or reactively.

In developing material lists for collection, DEQ will consider the availability of responsible end markets among other considerations. If a material is included on a list, a responsible end market should be available for it on a regular, routine and ongoing basis. Materials listed for collection may be temporarily impracticable to collect, for example, in the event of a major natural disaster, blocked ports and roadways may prevent getting materials to a responsible end market.

There may be limitations to the PROs’ capacity to resolve problems depending on what list a specific material is included in, and who has ownership and control of the material. In the case of a material on the PRO depot list, the PRO has the potential for direct control over the material and can leverage its contractual arrangement with the processor or depot to direct its transfer to another market. However, a material’s inclusion in the uniform statewide collection list means the MRF has direct control over the material and the PRO(s) bear a joint obligation with the MRF. In that case, a practicable solution would be achieved through collaboration rather than dictated by the PRO.

DEQ proposes providing examples of feasible solutions, including those that would work in a joint responsibility scenario, in the definition in rule for “practicable.” See the rule concept below for this list of practicable solutions.

IV. Rule Concept for discussion: clarifying the phrase “to the extent practicable”

1. For purposes of ORS 459A.869(7) and ORS 459A.896(2), “practicable” actions by a PRO may include, but are not limited to, the following:
 - a. Providing financial support to help an existing end market that does not meet the standard for “responsible,” or market not in alignment with the hierarchy of materials management, to upgrade or change operations to become “responsible” or aligned.
 - b. Providing financial support to divert materials to a different end market that is responsible or in alignment with the hierarchy of materials management.
 - c. Directing materials to an alternative end market if materials are directly under PRO control.
 - d. Offering to buy or take ownership of materials to directly control their flow if materials are not already directly under the control of the PRO.
 - e. Developing a new market for a material.
2. PROs may not claim that a possible action is not “practicable” simply because it results in higher transactional costs (expenditures) by the PRO. A claim that a solution is not “practicable” must

demonstrate technical barriers that cannot be overcome, or transactional costs that are not justified given the resulting societal benefits.

3. DEQ will review and evaluate any PRO claim that a practicable solution cannot be implemented due to technical barriers or because the potential benefits of using a responsible end market or market aligned with the policy hierarchy is not justified given the transactional costs. If DEQ agrees with the claim, DEQ will then review the material in question and its inclusion in a collection list.

V. Additional Rule Concept for discussion: Application of Oregon's Material Management Hierarchy

1. In cases of conflict between the elements of Oregon's material management hierarchy under ORS 459.015(2)(c)(C)(i) (preference for recycling pathways that displace more impactful materials) and ORS 459.015(2)(c)(C)(ii) (preference for recycling pathways that best preserve value and molecular structure), DEQ may identify the environmentally preferable option among pathways under consideration.

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El DEQ puede proporcionar los documentos en un formato alternativo o en un idioma distinto al inglés si así lo solicita. Llame al DEQ al 800-452-4011 o envíe un correo electrónico a deqinfo@deq.oregon.gov

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