Oregon Recycling Modernization Act Commingled Recycling Processing Facility Technical Workgroup

Meeting #6

September 25, 2023

Agenda

- Project updates
- Generator facing contamination reduction update
- Discussion – Performance standards, capture rates
  - Assessment of performance standards
- Discussion – Contamination Management Fee, invoicing options
- Discussion – Material disposition reporting
- Public Input
- Adjourn

Project updates

- Rule concept associated with permit and certification programs has been submitted for internal review. Will be presented to RAC on Nov. 1st.

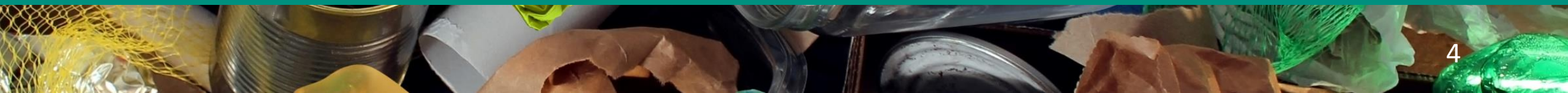
- Update regarding ORS 459A.955(1)
  - On or after the date established by the EQC, a person may not establish or operate a CRPF in this state unless the person obtains a disposal site permit issued by DEQ.

Pic courtesy of Justin Gast

Recycling Contamination Evaluation Update

Commingled Recycling Processing Facility Technical Workgroup
September 25, 2023

Arianne Sperry
arianne.sperry@deq.oregon.gov

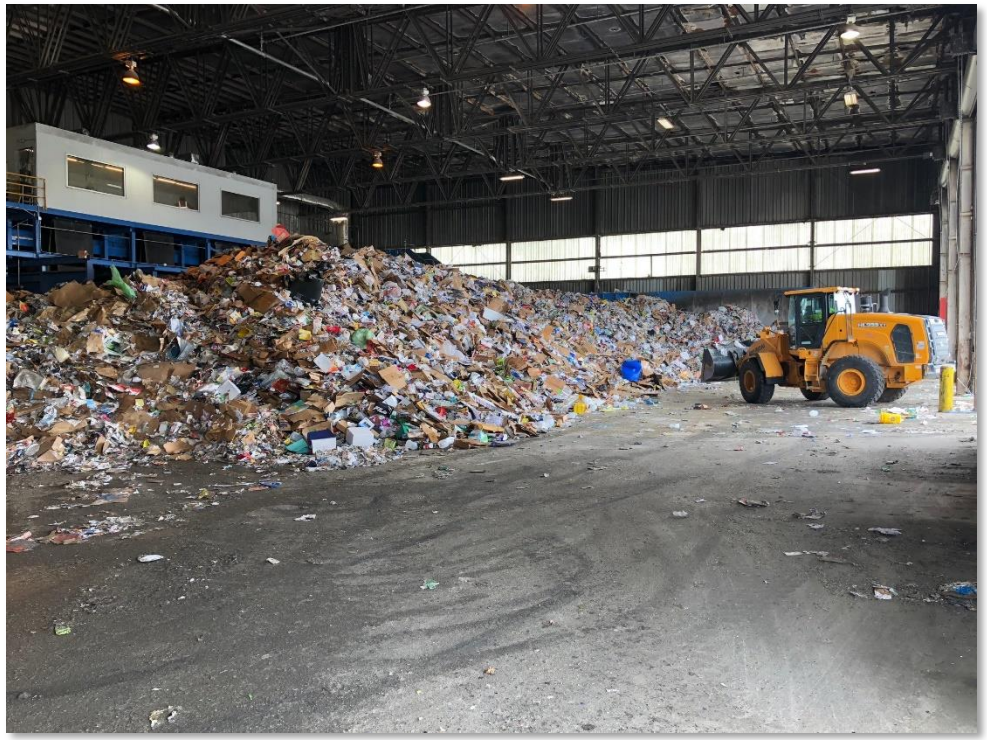


New evaluation requirement

- Recycling processors and reload facilities evaluate levels of inbound contamination *ORS 459A.959*

- Purpose:
  - Provide feedback on contamination reduction programming
  - Report back to legislature

- Goal is to develop “quick and easy” visual assessment facilities can conduct frequently



Pic courtesy of Justin Gast

Draft approach for visual assessment

1. Select load and get route info from driver
2. Prepare and assess whole load and 2 CY sample
3. Snap photos
4. Estimate contaminants of concern
5. Estimate overall contamination

Test sessions

- Two half-day sessions
  - Oct. 17-20
  - Nov. 14-17
  - exact dates TBD

We need facilities and testers

- Learn what's coming
- Help develop workable procedures

Facilities

- Receive SF and Cmcl/MF material similar to USCL
- Available space: two tip bays (40’x30’)
- Covered or can be covered
- Equipment and operator to manipulate materials and scoop 2 CY samples

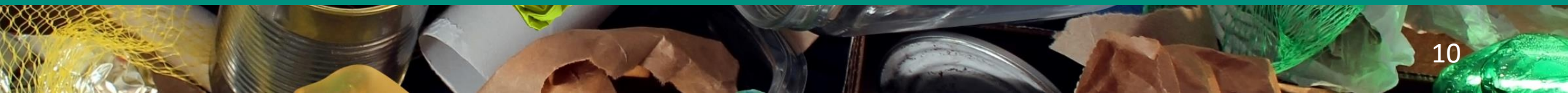
Staff testers

Pic courtesy of Justin Gast

- Facilities receive compensation for sending staff
- Snacks, water, and one meal provided
- Bring PPE: boots, hat, vest, glasses, gloves, ear plugs
- Reliable transportation to and from facility
- If possible, send different staff to each session

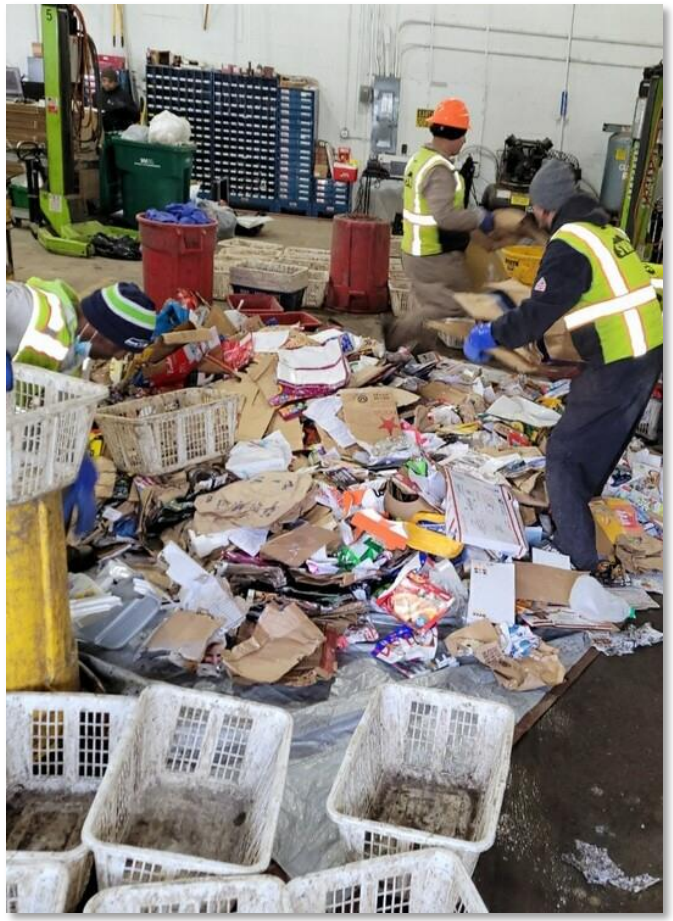
Discussion – Performance Standards
Capture Rates

Commingled Recycling Processing Facility Technical Workgroup
September 25, 2023



Very preliminary capture rate calculations

- Outbound recycling field work 75% done
  - Finish in October
- Preliminary calculations use 2020 commingled commodity information for all facilities combined, with some exclusions.
- Final calculations will be done with more current data from each facility individually.
- Next slides show calculation for final disposition of aluminum from commingled collection.



Pic courtesy of Sky Valley Associates

Commodity/Waste	2020 Tons	2020 Percent
OCC (Old corrugated cardboard)	111,555	36.1%
Mixed scrap paper	132,637	42.9%
HI (hi-grade or office paper	762	0.2%
RPC Rigid plastic containers	15,040	4.9%
PO Other rigid plastic	1,794	0.6%
PF Plastic film	2,077	0.7%
AL Aluminum	1,946	0.6%
TC Tin cans	5,028	1.6%
SCM Scrap metal	3,035	1.0%
GL Glass containers	2,267	0.7%
SW Solid waste - residual	33,047	10.7%
Total	309,188	100.0%

Commodity/Waste	2020 Tons	2020 Percent		Percent Aluminum
OCC (Old corrugated cardboard)	111,555	36.1%		0.07%
Mixed scrap paper	132,637	42.9%		0.53%
HI (hi-grade or office paper	762	0.2%		
RPC Rigid plastic containers	15,040	4.9%		0.17%
PO Other rigid plastic	1,794	0.6%		
PF Plastic film	2,077	0.7%		0.05%
AL Aluminum	1,946	0.6%		92.79%
TC Tin cans	5,028	1.6%		0.34%
SCM Scrap metal	3,035	1.0%		3.99%
GL Glass containers	2,267	0.7%		0.06%
SW Solid waste - residual	33,047	10.7%		1.33%
Total	309,188	100.0%		

Commodity/Waste	2020 Tons	2020 Percent		Percent Aluminum	Tons Aluminum
OCC (Old corrugated cardboard)	111,555	36.1%		0.07%	74
Mixed scrap paper	132,637	42.9%		0.53%	706
HI (hi-grade or office paper	762	0.2%			
RPC Rigid plastic containers	15,040	4.9%		0.17%	26
PO Other rigid plastic	1,794	0.6%			
PF Plastic film	2,077	0.7%		0.05%	1
AL Aluminum	1,946	0.6%		92.79%	1,806
TC Tin cans	5,028	1.6%		0.34%	17
SCM Scrap metal	3,035	1.0%		3.99%	121
GL Glass containers	2,267	0.7%		0.06%	1
SW Solid waste - residual	33,047	10.7%		1.33%	438
Total	309,188	100.0%			3,189

Commodity/Waste	2020 Tons	2020 Percent		Percent Aluminum	Tons Aluminum	Disposition
OCC (Old corrugated cardboard)	111,555	36.1%		0.07%	74	2.31%
Mixed scrap paper	132,637	42.9%		0.53%	706	22.12%
HI (hi-grade or office paper	762	0.2%				
RPC Rigid plastic containers	15,040	4.9%		0.17%	26	0.81%
PO Other rigid plastic	1,794	0.6%				
PF Plastic film	2,077	0.7%		0.05%	1	0.03%
AL Aluminum	1,946	0.6%		92.79%	1,806	**56.62%**
TC Tin cans	5,028	1.6%		0.34%	17	0.53%
SCM Scrap metal	3,035	1.0%		3.99%	121	**3.80%**
GL Glass containers	2,267	0.7%		0.06%	1	0.04%
SW Solid waste - residual	33,047	10.7%		1.33%	438	13.73%
Total	309,188	100.0%			3,189	60.42%

	Tons Accept.	Tons Marginal	Tons Not Accept.	Percent Accept.	Percent Marginal	% Not Accept.
OCC Cardboard	137,364	0	2,381	98.3%	0.0%	1.7%
Mixed Scrap Paper	84,005	0	5,845	93.5%	0.0%	6.5%
Gable Top Bev. Cartons	790	270	50	71.2%	24.3%	4.5%
Aseptic Drink Boxes	342	38	105	70.5%	7.9%	21.6%
Deposit Plastic (PET)	586	0	504	53.8%	0.0%	46.2%
Other plastic bottles	8,706	0	2,462	78.0%	0.0%	22.0%
Curb-OK plastic tubs, pails	1,135	0	632	64.2%	0.0%	35.8%
Aluminum cans	1,397	0	797	63.7%	0.0%	36.3%
Steel/Tinned Cans	4,815	0	1,712	73.8%	0.0%	26.2%
Scrap metal	2,660	457	447	74.6%	12.8%	12.5%

Very preliminary capture rate estimates

	Tons Accept.	Tons Marginal	Tons Not Accept.	Percent Accept.	Percent Marginal	% Not Accept.
OCC Cardboard	137,364	0	2,381	98.3%	0.0%	1.7%
Mixed Scrap Paper	84,005	0	5,845	93.5%	0.0%	6.5%
Gable Top Bev. Cartons	790	270	50	71.2%	24.3%	4.5%
Aseptic Drink Boxes	342	38	105	70.5%	7.9%	21.6%
Deposit Plastic (PET)	586	0	504	53.8%	0.0%	46.2%
Other plastic bottles	8,706	0	2,462	78.0%	0.0%	22.0%
Curb-OK plastic tubs, pails	1,135	0	632	64.2%	0.0%	35.8%
Aluminum cans	1,397	0	797	63.7%	0.0%	36.3%
Steel/Tinned Cans	4,815	0	1,712	73.8%	0.0%	26.2%
Scrap metal	2,660	457	447	74.6%	12.8%	12.5%

Capture rates – July 1, 2025

Fiber	Initial July 1, 2025 Rate	Updated July 1, 2025 Rate
OCC (includes Kraft paper)	96%	–
Printing and writing paper (includes ONP, packaging tissue paper, telephone directories, non-metallized giftwrap, paperboard, magazines, catalogs and similar glossy paper, paperback books and molded pulp packaging)	96%	–
Cartons	78%	–
Polycoated cups	78%	–

Capture rates – July 1, 2025

Plastic	Initial July 1, 2025 Rate	Updated July 1, 2025 Rate
PET bottles and containers (6 ounces to 2 gallons)	85%	–
HDPE bottles and containers (6 ounces to 2 gallons)	93%	88%
HDPE and PP tubs & pails (2 to 5 gallons) and PP bottles and containers (6 ounces to 2 gallons)	90%	83%
HDPE and PP flower pots – 4 inches to 2 gallons	70%	–
HDPE and PP flower pots greater than 2 gallons	85%	–

Capture rates – July 1, 2025

Metal	Initial July 1, 2025 Rate	Updated July 1, 2025 Rate
Accepted aluminum cans (beverage and food)	88%	–
Deposit and other steel cans accepted at curb	93%	–
Other scrap metal (ferrous, non-ferrous + mixed metal) accepted at curb	88%	–

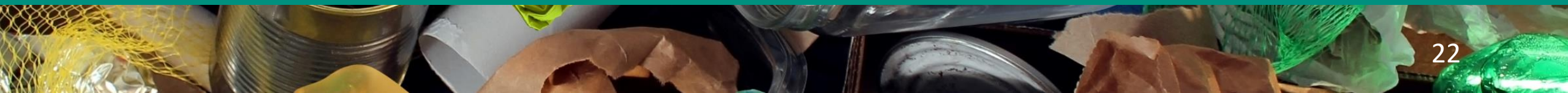
Capture rates – January 1, 2028

Pic courtesy of Justin Gast

- Rates proposed on June 13 will be the rates proposed in the draft rule concept.
- Rates are not final.
- In future system, rates could change based off data obtained from assessments. Changing those rates would require another rulemaking.

Discussion – Performance Standards Assessment

Commingled Recycling Processing Facility Technical Workgroup
September 25, 2023



Assessment of performance standards

- The first step in process will be DEQ or a third-party certifier reviewing any pertinent records in preparation for an unannounced on-site observation.

- As part of the unannounced on-site observation, DEQ or a third-party certifier will compare operations at the facility (e.g., manual versus automation, where manual labor will be utilized, etc.) against submitted records and on-site records the facility keeps, as documented in DEQ-approved operations plan.

- During that visit, a visual assessment of incoming materials will be undertaken, including any inbound screening procedures. The facility's material streams as they enter the baler(s) will be looked at. Finished bales stored onsite may be looked at as well.

Pic courtesy of Justin Gast

Assessment of performance standards

Pic courtesy of Justin Gast

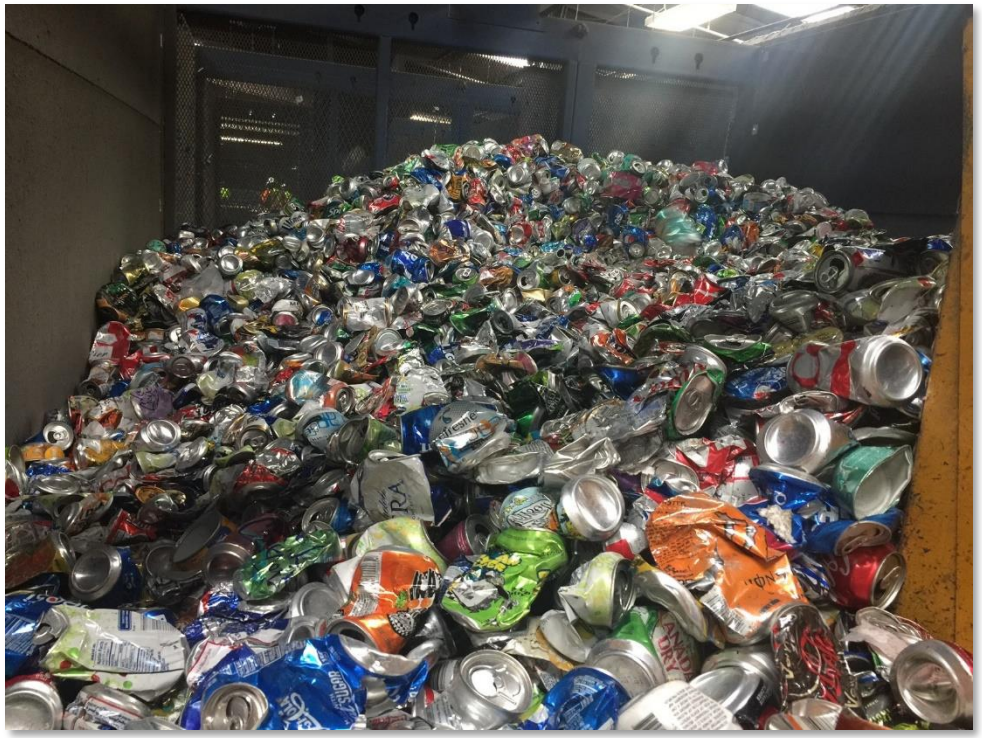
- Based on review of records and on-site observation, DEQ or a third-party certifier may identify need for a materials assessment, using manual sorting of loose or baled material to assess the processor's performance.

- DEQ, a third-party certifier or a contractor would conduct the unannounced conventional evaluation method assessment (e.g., manual sorting).
  - One unannounced conventional evaluation method assessment within first 2.5-year program plan period;
  - At least two unannounced assessments for each subsequent five-year program plan period, though data taken from a DEQ-approved alternative evaluation method assessment could be used to substitute for one of the conventional evaluation method assessments.

Assessment of performance standards

- At any point, a CRPF can request to DEQ that data be provided via an alternative evaluation method.

- If a facility is to use an alternative evaluation method to provide DEQ relevant data, the processor would need to demonstrate that the alternative evaluation method produces similar or better quality data than the conventional evaluation method. DEQ would have to approve the methodology of that comparison study, and the CRPF would be responsible for covering the costs associated with the undertaking of such a comparison study.



Pic courtesy of Justin Gast

Assessment of performance standards

Pic courtesy of Justin Gast

- For all assessments undertaken, material samples to be assessed will be pulled from the material stream as it enters the facility's baler(s), though finished bales could be sorted as well. The facility will need to make material available for on-site or off-site assessment. DEQ, a third-party certifier or a contractor must be on-site to observe selection of material to be assessed. If baled material is to be assessed, DEQ, a third-party certifier, or a contractor will select the bales to be assessed, not the processor.

- If follow-up sampling assessments are necessary, DEQ or a third-party certifier working with DEQ, will determine the schedule for which those follow-up sampling assessments will occur.

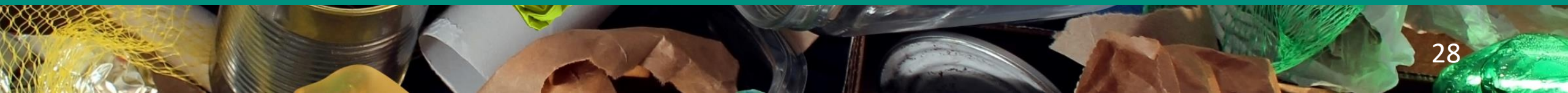
Break

The meeting will resume at approximately 12:37 p.m.

Discussion – Contamination Management Fee Invoicing

Commingled Recycling Processing Facility Technical Workgroup

September 25, 2023



CMF – Invoicing

- ORS 459A.920 requires the Environmental Quality Commission by rule to adopt and periodically revise a contamination management fee to be paid by PROs to CRPFs to compensate the facilities for the costs of removing and disposing covered products that are contaminants.

- Fee to be paid no more frequently than once per month.

Pic courtesy of Justin Gast

CMF – Invoicing

Pic courtesy of Justin Gast

Option 1

- Approach establishes an invoicing structure that uses data pulled from the *2023 Inbound Commingled Recycling Study* to determine:
  - Percentage of inbound that is covered product; and
  - Average inbound contamination rate (based off all commingled recycling processing facilities studied).

- Monthly calculation would look as such:
  - ***(Tons processed by [facility name] for [month and year] X percentage of inbound that is covered product) X average inbound contamination rate = tons X Crowe's per-ton calculation for CMF***

- Calculated figure is what the CRPF would invoice the PRO for.

CMF – Invoicing

Option 1 notables

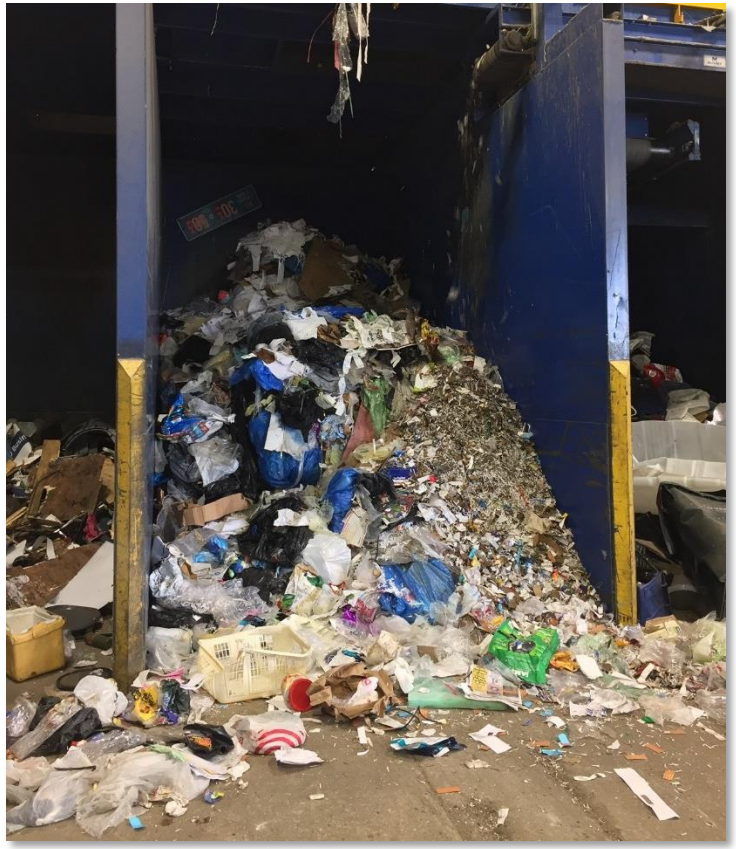
- To determine future average inbound contamination rates, DEQ could require PRO to periodically undertake an inbound study.

- Option would compensate CRPFs for covered product contaminants received, regardless of how effective a CRPF is at separating and removing that contamination. CRPFs that remove more would be paid the same amount for each ton of incoming recyclables as a CRPF that removes less.

- Option could be considered less precise (statewide average) but would be less of an administrative burden.

Pic courtesy of Justin Gast

CMF – Invoicing



Pic courtesy of Justin Gast

Option 2

- CMF would be assessed on the tons of covered product sent off to disposal.
- Funding would only be assessed on tons of material sent to disposal which was collected by a commingled recycling collection program in Oregon.
- Material collected by a non-RMA related collection program would not be eligible for Contamination Management Fee funding.

CMF – Invoicing

Option 2

TOTAL TONS RECEIVED BY [CRPF NAME] FOR [MONTH AND YEAR]: 10,000 TONS

- Eligible tons received and processed from local government collection programs: **6,000 tons**
- Eligible tons acquired from other in-state facilities: **800 tons**
  - **400 tons** from [CRPF name]
  - **400 tons** from [CRPF name]
- Tons of commingled USCL material moved to other CRPFs for further processing: **0 tons**

TOTAL ELIGIBLE TONS PROCESSED = 6,800 tons

- Ineligible tons of out-of-state-generated material processed: **1,200 tons**
- Ineligible tons of non-RMA-program (not commingled) material processed: **1,000 tons**
- Ineligible tons of non-commingled recyclable material processed: **1,000 tons**

TOTAL INELIGIBLE TONS PROCESSED = 3,200 tons

TOTAL COMMINGLED TONS PROCESSED = 6,000 + 800 + 1,200 = 8,000 tons

% of total that is eligible = (6,000 + 800)/(8000) = 85%

CMF – Invoicing

Option 2 (cont)

- Percentage of contamination that is covered products (percentage pulled from *2023 Inbound Commingled Recycling Study*) **= 44.8% (current study estimate)**

- Composite % of disposal that is eligible (in-state covered products) **= .85 x .448% = 38.1.%**

TOTAL TONS OF RESIDUALS SENT TO LANDFILL = 200 TONS

- 200 X percentage of eligible tons for [Month, year] compared against total tons processed for [month, year] (**NOTE:** *percentage may/will change from month to month*) **= 200 x .381 = 76.2 tons**

76.2 tons X Crowe's per-ton calculation for CMF = [$TK]

- Calculated figure is what the CRPF would invoice the PRO for.

CMF – Invoicing

Other notables

- Option 2 could be considered as being more precise (facility-specific) but the administrative burden of undertaking this option is higher.

- Both options are reliant on studies to determine:
  - Percentage of inbound that is covered product (option 1)
  - Average inbound contamination rate (option 1)
  - Percentage of contamination that is covered products (option 2)

Pic courtesy of Justin Gast

CMF – Invoicing

Pic courtesy of Justin Gast

Other notables

- Regardless of the invoicing option selected, DEQ will establish in rule new requirements, reporting and otherwise, in order to ensure the following are met:
  - Provide that the fee may not be based on commingled recycling originating outside of Oregon (ORS 459A.920(2)(b));
  - Establish a review process to ensure that the fee is appropriately charged (ORS 459A.920(2)(c)).

- As part of the data that CRPFs will be required to submit to DEQ, DEQ could request monthly residual tonnage data, which DEQ would spot check against the tonnage figure the CRPF is charging the PRO for under the CMF.

Discussion – Material Disposition Reporting

Commingled Recycling Processing Facility Technical Workgroup
September 25, 2023

Material disposition reporting

Reporting calendar

- (Per statute) first reporting deadline is November 1, 2025.
  - For this deadline, CRPFs must submit disposition data for the first quarter of the program (July-September).

- CRPFs must report at quarterly intervals (i.e., February 1, 2026; May 1, 2026; August 1, 2026; etc) and report for the quarter that ended one month prior to the reporting deadline.

- **Question:** Should rules also require CRPFs to submit self-attestations of responsible end markets prior to using the end market?

Pic courtesy of Justin Gast

Material disposition reporting

Pic courtesy of Justin Gast

Required reporting contents

- CRPF reporting must indicate all entities that took possession of CRPF-origin scrap material (i.e., business or person name; city, state, region and country) and the amounts received during a given quarter.

- Amounts will be reported in tons. Reporting must extend up through the responsible end market or through to a disposition besides recycling (e.g., landfill, incinerator, etc.).

- If a supply chain contains more than one node downstream of the CRPF, tonnages received by each entity must be grouped together to allow DEQ to see how material was routed through to the end market.

Material disposition reporting

Who can report

- CRPFs may report their disposition data to DEQ.

- **Question:** Shall rules allow CRPFs to designate another entity to report the data on their behalf (e.g. a PRO, should PROs and CRPFs forge an agreement by which PROs will handle the tracking of materials marketed by CRPFs)?

- **Question:** Shall CRPFs be allowed to designate multiple entities to report the same material on their behalf (e.g. multiple brokers covering multiple different supply chains)?

Pic courtesy of Justin Gast

Material disposition reporting

How material is tracked

- CRPFs may choose the approach taken to tracking materials (e.g. a manifest system, a chain of custody system, RFID tracking, etc) and generating the required data for reporting, but must inform DEQ of its approach and must allow DEQ and PROs access to their facilities for the purpose of performing random bale tracking per proposed rule 340-090-0670(4).

Material unit of reporting (SEEKING FEEDBACK)

- The granularity at which materials must be tracked. Options include requiring reporting by:
  - The material categories defined in the local government recycling lists;
  - Capture rate categories; or
  - Bale types

- DEQ intends to define the material unit of reporting in a way that would best enable accurate reporting, but without being so granular as to place an undue tracking burden on the CRPFs.

Public Input

Commingled Recycling Processing Facility Technical Workgroup
September 25, 2023