Materials Management Program

Recycling Modernization Act: Material List Technical Workgroup

Meeting Summary: Meeting #3

May 31, 2022 Zoom

List of Technical Workgroup Members in attendance

- Dan Weston
- Dave Larmouth
- Dave Lefebvre (for Nicole Willet)
- David McCall
- Gabe Forrester
- Jerry Powell
- Kate Eagles
- Kim Holmes

- Liz Bedard
- Rosalynn Greene
- Wayne Jackson

DEQ project staff

- Cheryl Grabham
- David Allaway
- Justin Gast



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• Laur	a Leebrick • Peter Canepa
Time	Topic
	Introductions, agenda review, context/update Justin Gast welcomed and thanked Technical Workgroup members and reviewed the agenda.
8:30 a.m.	David Allaway then provided a short update. He thanked the group members for contributing to progress to date, and noted that by the end of this meeting, the group will have completed an initial review of most materials (with economic and environmental evaluation results being shared later). Regarding the preliminary evaluation matrix, he noted that only a few changes had been made in response to comments at the April 28 meeting, but that more will be made in the coming months. All evaluation scores remain preliminary and are offered to generate discussion, but if no discussion occurs on a given score DEQ will likely confirm it as is. Importantly, the draft rules that result from this evaluation will be the next but not final step in the evolution of Oregon's recycling systems; the Act provides multiple "on-ramps" for materials to be reconsidered for inclusion in recycling lists in the future.
8:40 a.m.	Metals Justin Gast introduced Nicholas Georges of the Household & Consumer Products Association as a guest for this agenda item. Justin and David then led the workgroup through discussions on the topics of aluminum foil and pressed foil products, aerosol cans, paint cans and large appliances. The group discussed several of DEQ's preliminary evaluation scores for those materials.
	A few topics generated the most discussion, including the following:

- Collecting aluminum foil and pressed foil products via drop-off (via on-route) could reduce yield loss at both MRFs and smelters, and may also reduce contamination and encourage reuse. Drop-off opportunities may be significantly improved (for many materials) under implementation of the Recycling Modernization Act than they are at present.
- There are significant concerns involving potential hazards from aerosol cans. especially if not emptied. British Columbia currently collects these at the curb but is considering a change. Tillamook County collects them only through its household hazardous waste program (even cooking oil cans). An HCPA analysis suggests the risk is very low; HCPA is undertaking additional research this year. Aerosols could be contributing to MRF fires, but there is very poor evidence to prove that is the case: the cause of some fires is never identified. Commercial sources may be a higher source of risk (due to potential for higher concentration) than residential.
- Regarding appliances, those with refrigerants require additional handling.

Foamed Plastics

Justin introduced Matt Durbin of Agilyx as a guest for this agenda item. David McCall then provided an overview of how expanded polystyrene (EPS) from Tillamook County is collected, densified, and recycled.

Peter Canepa shared the results of a preliminary life cycle assessment of different scenarios for managing EPS at end of life. He reiterated that the results were preliminary and were not comparing EPS against other materials. (See slides.) A few high-level results include:

- Generator driving distance (to drop-off site) has the potential of adding significantly to environmental impacts.
- The location of a densifier (at point of collection vs. at a nearby consolidation point) makes relatively little difference.
- There are trade-offs between impacts of densification and the impacts of transporting undensified EPS.
- For some impact categories, there is a significant difference in both impacts and benefits between mechanical recycling and chemical recycling, and in some cases, a significant difference between both forms of recycling and landfilling.

Workgroup members and Matt Durbin asked several questions of Peter including whether he could evaluate a domestic mechanical recycler; whether the study accounted for potential losses due to mismanagement, worker exposure, geographic differences, and impacts of litter; how the boundaries of the analysis were drawn; assumptions regarding density and size of trucks; information on consumer behavior; and the magnitude of impacts vs. other materials. DEQ also invited workgroup members to provide feedback or questions on the preliminary ratings for foamed plastics.

Films and other flexible packaging

Justin introduced the following guests for this and the following agenda items:

- Alison Keane and Sam Schlaich Flexible Packaging Association
- Tonya Randell Stina Inc.



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9:00 a.m.

10:20 a.m.

11:10 a.m.

12:30 p.m.

- Nicole Janssen Denton Plastics
- Martin Vogt EFS Plastics

David then shared a summary of DEQ's preliminary ratings for films and other flexible packaging, noting that DEQ proposes no further evaluation on films other than polyethylene bags and wraps. Discussion included the following topics:

- Significant new investments in polyethylene film recycling, including wash lines to remove inks.
- Challenges with bag-to-bag recycling; the plastic lumber market is more forgiving of contaminants.
- Contamination reduction resulting from public education; importance of labels.
- Responsibility in some foreign markets.
- Agreement from Flexible Packaging Association that polypropylene and multimaterial films are not ready for designation yet but are good candidates for PRO engagement.
- Contamination in residential vs. commercial sources.

Other plastic packaging and products >6 fluid ounces (excluding food serviceware)

Justin facilitated discussion and feedback on a long list of materials (see evaluation matrix and agenda for full list).

The following topics generated the most discussion:

- Apparent inconsistencies in preliminary ratings between similar materials.
- Importance of seeking feedback from MRF operators (none attended this portion of the agenda).

Recyclability of bulky plastic items, including perceived challenges both at the
point of collection and at MRFs; strength of end markets. Some workgroup
members noted that collection of bulky plastics shouldn't include bulky plastic
toys, as there's too many mixed materials.

• Challenges and recent advancements involving recycling of squeezable tubes; expected changes in toothpaste packaging in the next few years. It was noted that the three biggest toothpaste manufacturers (Colgate-Palmolive, Procter & Gamble and GSK) intend to convert all their toothpaste tubes over to solid HDPE in the near future. Some TWG members were worried about how to educate the public on which tubes are recyclable and which tubes aren't.

11:40 p.m.	Lunch
12:10 pm.	Other plastic packaging and products >6 fluid ounces (excluding food serviceware), continued Justin continued facilitating discussion on materials. Several MRF operators and two plastics reclaimers (Martin Vogt and Nicole Denton) discussed markets for polypropylene; they also shared information (along with Matt Durbin) regarding recycling of polystyrene packaging (not foamed).

Small format plastic packaging, lids, caps and similar materials

Justin introduced Gary Panknin of PakTech as a guest for this agenda item. He then introduced DEQ's preliminary ratings for small format plastic packaging and invited feedback. Items generating the most discussion included:



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	 Market demand for lids; benefits of dual stream collection (keeping lids from being commingled with fiber). Recovery of small-format plastics in a new "unders" recovery system at the EFI MRF. Practicalities of baling, storing, and sorting small format packaging. Importance of maintaining flexibility as packaging materials and formats are likely to continue changing. Bottle caps vs. lids; disagreement between workgroup members regarding the advisability of telling the public "caps on" vs. "caps off"; curiosity about why ORPET/ORBC accepts caps on; possibility of recycling lids and caps together if collected via drop-off. HDPE 6-pack carriers; efforts by PakTech test how their product flows through a MRF; potential compatibility of HDPE 6-pack carriers with LDPE rings (similar melt point).
	Public input Justin made a second call for public input. None was offered.
	Plastic food serviceware Justin introduced two additional guests for this agenda item:
1:25 p.m.	Next steps, outstanding questions David thanked the group for their ongoing participation and invited feedback on meeting agendas, content and style. He also asked technical workgroup members to share with DEQ by June 10 th any other materials not yet included in the evaluation matrix (and excluding glass packaging, which is slated for discussion at the next meeting) that members believe should be evaluated for potential inclusion in mandatory recycling lists for Oregon.
1:30 p.m.	Adjourn.

Note: Some times listed above are approximations.



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List of other attendees

Laurie Gordon Colette Bazirgan Barbara Ochota Trevor Beltz Shari Jackson Gary Okey Molly Blessing Nicole Janssen Carolina Paez Janine Bogar Alison Keane Gary Panknin Abby Boudouris Tonya Randell Scott Keller Jessica Branom-Zwick Diane Landry Cat Rhoades **Travis Comfort** KJ Lewis Gretchen Sandau Shannon Crawford Jake Lowenstein Sam Schlaich Resa Dimino Matt Markee Hannah Scholes Aaron Donley Katy McDowell Tim Shestek Matt Durbin Casey Mellnik Vinod Singh Thomas Egleston **Devon Morales** Joyce Thung Ashley Elzinga Jeff Murray Nickole Vargas Nicholas Georges Leah Navarro Martin Vogt Patrick Gieske Mark Watts Caitlin Newman



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