



Oregon Department of Environmental Quality

Ensuring Responsible End Markets

Checklist for Recycling Council program plan review

Sub-committee members: Dan Felton, Rep. McLain, Celeste Meiffren-Swango, Jason Pierzina, Vinod Singh

DEQ support person(s): Nicole Portley

Focal plan section: Operations Plan: Materials Strategy: Ensuring Responsible End Markets

	DEQ feedback	Council feedback
Overall Feedback on Plan Section:	CAA sets out an approach to selecting verification bodies, verifying facilities against the “responsible” standard, tracking material flows, auditing verification results including through the use of random bale auditing, and classifying and addressing non-conformances. Overall, their approach to the plan is largely holistic and aligned with requirements in statute and rule. One key missing piece is the detailed standard with specific criteria and performance indicators that facilities will be verified against. DEQ also notes several areas where additional detail or clarification is desired and/or a more robust approach.	

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Ensure that four classes of covered products, identified in ORS 459A.869(7), and contaminants collected with those covered products, are managed and disposed of consistent with the goals, standards and practices required by ORS 459A.860 to 459A.975 and transferred to responsible end markets.	ORS 459a.875(2)(a) (G) and (H) ORS 459A.869(7)			
Provide examples of end markets, as defined in OAR 340-090-0670(1), that may use the material collected from covered products in the manufacturing of new products;	ORS 459A.875(2)(a) (H)(i)		Examples are provided as required on page 72-73 of the plan, but they are all in North America, which could give the impression that the responsible end market regulation restricts trade of recyclables overseas, which is not the case.	
Describe how the prospective PRO will verify that the recycling supply chains up through and including the end markets are meeting the "responsible" standard, including through	OAR 340-090-0670(2)-(3)			
(Step 1) initial screening assessments (self-attestations). Regarding	OAR 340-090-0670(3)(a)(A)			

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these, the program plan could indicate:				
information that will be used to complete the screening assessments; and		n/a	Obtaining self attestations is represented as step 1 of a 3-step verification approach on pg 73. No plans to use specific information to fill out the forms (for example, to fill out the field where CAA indicates any evidence that supports the self-attestation) are provided. CAA could consider if any desktop pre-auditing could be undertaken to flesh out this section of the self-attestations, as for some markets the self-attestation will be the only assurance of responsibility in place until July 1, 2027.	
plans for distribution of self-attestation forms to supply chain entities; and		n/a	On pg 73 it is indicated that CAA will work with brokers to obtain self-attestations of overseas markets.	
(Step 2) PRO verifications. Regarding these, the plan could include:	OAR 340-090-0670(3)(f) ORS 459a.875(2)(a) (H)			

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Details on the verification body(ies) that will be contracted with.		n/a	No specific verification bodies to be contracted with are indicated, but on pg 73 criteria for their selection are indicated. The criteria are fairly holistic. CAA might consider adding a requirement that a verification body employ and retain at least two lead verifiers, which would be the minimum needed to have one verifier conduct an audit and the second conduct internal review.	
Criteria for review and approval of verification bodies and verifiers, such as accreditation requirements, professional liability insurance requirements, policy requirements for prevention of conflict of interest, etc.		n/a		
The approach for verifying that downstream entities meet the "responsible" standard ¹ , including		n/a	Among criteria for selection of verification bodies is "a proposal of standards to use to measure REM compliance." More detail is needed here, as DEQ conducted an initial benchmarking of certifications already in existence in the materials and recycling industries and identified no existing certification that	

¹ Additional details on the nested sub-components #1-5 can be found in the [Internal Management Directive on program plan review](#), Appendix F, pg 58-59.

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			<p>adequately covers all elements of the "responsible" standard.</p> <p>An alternative approach to sourcing standards from verification bodies during project implementation would be to develop or select a standard as part of program plan development, subject to program plan review. Arguably this is a necessary plan component per ORS 459A.875(2)(a)(H), which requires the PRO to describe in the program plan how it will ensure that materials flow to responsible end markets. The EQC established the framework for the "responsible" standard in rule, but to really apply it in audits, detailed criteria and performance indicators need to be developed on its basis.</p>	
1. A description of how facilities will be selected for site visits and/or		n/a	All facilities will receive a site visit by July 1, 2027, and one site visit every five years, with desktop audits conducted in	

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desktop verification (sampling plan)			years when site visits do not occur. Criteria by which facilities are to be prioritized for site visits are listed on pg 75. Overall, the approach appears sound.	
2. How compliance with applicable laws and treaties will be verified (element #1 of the "responsible" standard).	OAR 340-090-0670(2)(b)(A) OAR 340-090-0670(3)(f)(B)		A description of the approach to verification of this element of the "responsible" standard is laid out on pg 75. It refers to a minimum approach of review of facility operating permits. Ideally verification would encompass a full compliance audit; review of operating permits alone would not allow an auditor to capture many compliance issues (scope with respect to permits should be broadened beyond the simple permit to encompass reporting required under applicable permits, associated inspection reports, notices of violation, etc). Could a viable approach also encompass testing facility staff awareness of all applicable laws during an audit and	

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			providing a pathway for public input that might reveal any misreporting?	
3. How chain of custody transparency will be verified (element #2 of the "responsible" standard)	OAR 340-090-0670(2)(b)(B)		<p>The approach to verifying chain of custody is laid out on pg 75, and the approach to tracking material flows on pg 77.</p> <p>DEQ wonders whether CRPFs handling Oregon commingled materials collected for recycling have agreed to collaboration with CAA to track their materials? Having a singular tracking system across all USCL and PRO acceptance list materials seems ideal but would require collaboration among different parties.</p>	
4. How environmental soundness will be verified (element #3 of the "responsible" standard)	OAR 340-090-0670(2)(b)(C)		<p>The approach to verifying environmental <i>compliance</i> is noted on pg 75, but in DEQ's opinion this should read "<i>environmental soundness</i>," which is distinct, albeit overlapping, with environmental compliance.</p> <p>The intent to document plastic leakage during site visits is</p>	

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			<p>indicated and strongly welcomed by DEQ. Otherwise, this is an element for which seeing plans for what specific criteria would be audited against in a verification would be helpful in ascertaining whether or not the proposal is sufficient to ensure that materials flow to REMs.</p>	
<p>5. How adequate yield will be verified (element #4 of the "responsible" standard), including:</p>	<p>OAR 340-090-0670(2)(b)(D)</p>		<p>Calculation of yield is indicated on pg 74 as something CAA will focus on as a part of its quarterly auditing, and on pg 75 as something that verification bodies will measure and verify within the material flow management system. DEQ would recommend adding some more detail in the updated plan so that it would be clearer that the proposed method is suited to the overall objective of the 60% yield threshold—ensuring that minority components in a mixed bale are not being</p>	

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			diverted to landfill at an end market when we are communicating to Oregonians that they are being recycled. Some visual verification during site visits strikes DEQ as an important element here.	
<p>Protocols to be applied when reporting disposition for and calculating yield in recycling supply chains in which obligated Oregon materials mix with non-obligated materials, such as material from another state.</p>	<p>OAR 340-090-0670(2)(d)</p>		<p>CAA proposes to use controlled blending and mass balance rolling average percentage accounting on page 78-79, which are both proportional accounting methods that would limit the risk of using flexibility in accounting to omit a downstream market after materials from Oregon mix with materials from elsewhere at a previous supply chain node. The proposal is in line with DEQ's current draft rules on disposition reporting.</p> <p>Figure 6, however, does not convey that rolling average entails proportional allocation, as it shows Oregon materials being unequally attributed</p>	

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			<p>among four output bales that are presumably potentially going to four different destinations. Wouldn't a more accurate rendering show practically the same graphic for both methods (i.e., Oregon input being divided equally among the four output bales), but for controlled blending the input is a single batch, whereas for mass balance rolling average the input is the quarterly average of material that came in from Oregon vs. other sources?</p> <p>Regarding the period over which averages are calculated, quarterly calculation would align with DEQ's requirement that disposition be reported on a quarterly basis.</p>	
<p>(Pre-verification requirement for chemical recycling) For a method other than mechanical recycling, an analysis of the environmental impacts for the proposed method compared to the environmental impacts of</p>	<p>ORS 459A.875(2)(a)(l)(iv)</p>		<p>No request to send materials to non-mechanical recycling is made.</p>	

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mechanical recycling, incineration and landfill disposal as solid waste.				
Requests for temporary variance from the screening and verification deadlines indicated in OAR 340-090-0670(3)(b), accompanied by justification	OAR 340-090-0670(3)(e)		No request for variance from deadlines is made.	
Requests for temporary variance from the required components of a verification accompanied by justification, if such requests are being made. Justification could consist of criteria for identifying facilities that would receive more limited verifications on the basis of characteristics such as location and role in the supply chain,	OAR 340-090-0670(3)(h)		<p>CAA requests three temporary variances from the required components of a verification, for 1) markets verified by another PRO under another EPR program, 2) markets that have obtained a relevant certification, and 3) landfills and disposal sites in the US and Canada (as long as they provide a valid operating permit and no info regarding potential noncompliance is provided to CAA).</p> <p>With respect to requests 1 & 2, CAA proposes the variance be attributed for those elements of the "responsible" standard that were covered by the audits done to separate</p>	

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			<p>standards. CAA could thereafter organize for verification against remaining elements.</p> <p>DEQ agrees with the spirit of the proposal but notes the following for consideration:</p> <ul style="list-style-type: none"> • A fleshed-out standard for the verifications including criteria and performance indicators would be needed in order to benchmark effectively against other standards and determine which elements are and are not covered. • CAA could consider doing some spot-checking of the facilities encompassed under the variances for #1 and #2. 	
How the prospective PRO will track material flows, enabling required quarterly disposition	ORS 459A.887(6)		See response re: chain of custody above, CAA proposes developing a holistic material	

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reporting per ORS 459A.887(6)—for example, through use of a database, including a description of any plans for cooperative development and use of such a database with commingled recycling processing facilities;			tracking system; DEQ presumes that this is premised upon agreed-upon collaboration with CRPFs to track the materials that they own, and would welcome confirmation of that.	
Description of how the PRO will audit results across all facility verifications. This section could include:	OAR 340-090-0670(4)		Approaches to auditing are laid out on pg 80-81.	
Details of the approach taken toward auditing the accuracy, quality, and comprehensiveness of verifications.		n/a	On pg 80, CAA proposes to conduct review of reporting on a quarterly basis, encompassing spot bale audits and comparing outbound and inbound tonnages. CAA also reserves the right to conduct spot check visits during verifications and of verification bodies' documentation as part of this auditing. DEQ considers this appropriate, but would propose the following edits to the plan language: "CAA representatives may will accompany the verification body randomly on site visits or	

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			and take other steps to audit the verification process. It may will also spot check certain documents that can be made available to CAA." Consider indicating the extent of such activities that CAA can commit to.	
Key contractor(s) or auditors for random bale auditing and information about their qualifications;		n/a	No key collaborators for the auditing work are indicated.	
The sampling methodology to be used for random bale auditing including		n/a		
Quantity of trackers to be deployed.			CAA proposes to deploy up to 33 trackers per year, with a breakdown as follows: <ul style="list-style-type: none"> - One deployed curbside per Oregon CRPF - Up to 20 for mixed paper bales, i.e., one for each potential broker - Up to five for carton bales, i.e., one for each potential broker. 	

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			DEQ would recommend adding tracking of mixed plastics outbound from CRPFs.	
Where and how they will be placed (in bales and/or in consumer bins, what type of materials, etc.			CAA proposes to track materials from curbside as well as place trackers in bales at CRPFs. DEQ notes that CAA could consider tracking materials from other points of collection as well, e.g. multi-family, ICI collection, depots.	
The approach to securing the trackers to the targeted materials and preventing their early destruction or loss.			On pg 81 it is indicated that CAA is working with different tracking device providers to select the best device in terms of functionality and safety.	
Safety considerations.				
The proposed approach to reporting auditing results to the department, such as through the submission of audit reports from the auditor or providing access to a user interface where real-time tracking results are visible;		n/a	On page 81 it is indicated that DEQ will be informed if loads and bales are not compliant with the shipment documents.	
Arrangements the PRO proposes to make with processors to ensure that		n/a	On page 81 CAA lists some practicable actions that it may undertake of relevance to	

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<p>covered products identified in ORS 459A.914 are recycled at a responsible end market, including any investment intended to be made to support processors or other practicable action (as defined in OAR 340-090-0670(5)) to be undertaken;</p>			<p>processors, including providing technical and brokerage services and/or information on responsible end markets; and purchasing and reselling materials to responsible end markets. Consider adding to this list: "Other actions as needed to comply with Oregon law."</p> <p>Regarding investments in practicable actions more broadly, CAA proposes to set up a dedicated fund for end market development initiatives equal to 3-5% of expected commodity values. DEQ notes that this is useful info, but also would note that the PRO is obligated to provide responsible disposition if doing so is practicable. What if needs are higher than 3-5% of commodity values?</p>	
<p>Actions and timeline to investigate if the prospective PRO learns of potential non-</p>		<p>n/a</p>	<p>On pg 76, CAA indicates that it will classify non-compliance into three categories of</p>	

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compliance through the verification/certification process or otherwise;			severity – minor, major, and disqualifying, on the basis of ISO 19011. A relevant plan excerpt is as follows: “Entities with minor and major non-compliance will have the opportunity to take corrective action....in a defined period of time. Entities with disqualification non-compliance will not have that opportunity. Entities with minor non-compliance could be considered a REM during the time they are taking corrective action.” DEQ considers this an appropriate approach. DEQ notes that non-compliance will be communicated by verification bodies to the PRO through an audit report that “will not contain detailed information about the entity for confidentiality purposes,” and in turn these reports will be provided to DEQ. DEQ would	
Steps the PRO will take and timelines for action when verification, certification, or auditing indicates that the “responsible” standard is not being met, including:		n/a		
A commitment to provide to the department, when making a claim that no practicable solution is possible, an analysis of the solutions’ costs per ton compared with the practicability financial benchmark, or a customized cost-benefit analysis; and	OAR 340-090-0670(5)(c)			

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			<p>note that CAA should review OAR 340-090-0710(4)(d), which clarifies several types of information pertaining to end markets that are not proprietary, including business name and location, and material processed. DEQ would like to make sure that this information would be included in the reports. Furthermore, DEQ considers that information on non-compliance in the reports needs to be sufficient in order for third parties, such as members of adjacent affected communities, to provide public comment as to problems that may have been missed in verification. The PRO annual report process, which includes public comment, could serve as the vehicle for such concerns to be raised, but is predicated on adequate verification information being made public.</p>	

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Any other information on how the organization will ensure that responsible management of covered products is maintained through to final disposition.		n/a	CAA proposes to collaborate with producers seeking exemptions under ORS 459a.869(13) to ensure that they are being recycled at REMs.	

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800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

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