

Internal Management Directive Describing DEQ's Regulation of Facilities Used to Manage Woody Biomass from Forestry Operations

Materials Management

700 NE Multnomah St.
Suite 600
Portland, OR 97232
Phone: 503-229-5696
800-452-4011
Fax: 503-229-6124
Contact: Bob Barrows
www.oregon.gov/DEQ

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State of Oregon
Department of
Environmental
Quality

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Document Development

Prepared By: Bob Barrows and Jamie Jones

Reviewed By: Loretta Pickerell, Ron Doughten, Shannon Davis,
Audrey O'Brien, Brian Fuller

Approved By: 
Lydia Emer, Land Quality Administrator

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1. Intent/Purpose/Statement of Need

Oregon's solid waste statutes and rules authorize DEQ to regulate facilities that manage solid waste. Particularly due to heightened efforts to improve forest health, new technologies and initiatives are emerging that necessitate the management of woody biomass generated.

For facilities managing woody biomass, DEQ staff will be asked to determine whether such woody biomass is a solid waste and, if so, whether and how the facility is regulated under solid waste statutes and rules. This guidance will help DEQ staff evaluate these new initiatives and consistently apply DEQ authorities in making these determinations.

2. Applicability

DEQ Materials Management staff will use this Internal Management Directive to assist in assessing whether and how facilities used to manage woody biomass from forestry operations are regulated under Oregon's solid waste statutes and rules.

3. Summary

Oregon's solid waste statute and rules define "solid waste" broadly and authorize DEQ to regulate facilities used to manage solid waste, defined as "disposal sites." Owners or operators of these facilities are required to obtain a solid waste permit from DEQ unless their facilities are excluded from this permit requirement. Solid waste rules also require certain management practices for both permitted and unpermitted facilities.

To apply these regulations to a facility managing woody biomass, DEQ first determines whether the woody biomass meets the definition of "solid waste," i.e., is it useless or discarded by the generator. This is a case specific, fact-based determination. If the woody biomass is not a solid waste, DEQ lacks authority under solid waste laws to regulate the facility's management of that woody biomass.

If the woody biomass is a solid waste, DEQ next determines whether the facility managing that waste is excluded from solid waste permit requirements, and if not, the type of permit required. DEQ may also assess the facility's potential for a beneficial use determination in lieu of a permit. Whether or not the facility requires a permit, DEQ also determines whether rules requiring certain management practices for both permitted and unpermitted facilities apply.

To ensure these regulations are consistently applied, DEQ staff should consult within their own and other regions and with their managers regarding relevant factors, information needed, and prior precedent. Staff should ensure the information supporting their determinations is properly documented.

4. Background

Oregon's Solid Waste Management law, ORS 459, establishes the framework for the regulation of facilities used to manage solid waste and authorizes EQC rulemaking to implement the law.

"Solid waste" is defined at ORS 459.005(24) and OAR 340-093-0030(91). A few types of materials and uses of material are excluded from that definition or from the applicability of that definition under ORS 459.007.

ORS 459.205 and 215 require facilities used to manage solid waste to obtain solid waste disposal site permits unless they are excluded from permit requirements by statute or rule. Those exclusions are found in OAR 340-093-0050(3) (multiple types of facilities), OAR 340-096-0060(3) (composting facilities), OAR 340-096-0160(4) (conversion technology facilities), and OAR 340-93-0030(38) (definition of disposal site"). ORS 459.215 also excludes some of these.

Permit requirements for different types of solid waste management facilities are found in OAR 340-093 through 340-097. Rules for approving beneficial use determinations in lieu of permits begin at OAR 340-093-0260. Solid waste rules requiring certain management practices for both permitted and unpermitted facilities are found in OAR 340-093 and in rules for specific types of disposal site permits.

5. Definitions

"Disposal Site" means land and facilities used for the disposal, handling, treatment or transfer of, or energy recovery, material recovery and recycling from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, land application units (except as exempted within the definition of solid waste in this rule), transfer stations, conversion technology facilities, energy recovery facilities, incinerators for solid waste delivered by the public or by a collection service, composting facilities and land and facilities previously used for solid waste disposal at a land disposal site.

The term "disposal site" does not include a facility authorized by a permit issued under ORS 466.005 to 466.385 to store, treat or dispose of both hazardous waste and solid waste; a facility subject to the permit requirements of ORS 468B.050; a site that is used by the owner or person in control of the premises to dispose of soil, rock, concrete or other similar non-decomposable clean fill material, unless the site is used by the public either directly or through a collection service; or a site operated by a wrecker issued a certificate under ORS 822.110. OAR 340-093-0030(38); also see ORS 459.005(8).

"Recycling" means any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity. OAR 340-093-0030(79); ORS 459.005(20).

"**Solid Waste**" means all useless or discarded putrescible and non-putrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid materials, dead animals and infectious waste. The term does not include:

- (a) Hazardous waste as defined in ORS 466.005;
- (b) Materials used for fertilizer, soil conditioning, humus restoration, or for other productive purposes or which are salvageable for these purposes and are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, provided the materials are used at or below agronomic application rates; or
- (c) Woody biomass that is combusted as a fuel by a facility that has obtained a permit described in ORS 468A.040. OAR 340-093-0030(91). Also see ORS 459.005(24).

"**Woody biomass**" means material from trees and woody plants, including limbs, tops, needles, leaves and other woody parts, grown in a forest, woodland, farm, rangeland or wildland-urban interface environment that is the by-product of forest management, ecosystem restoration or hazardous fuel reduction treatment. OAR 340-093-0030(108); ORS 459.005(30).

6. Acronyms Used in This Directive

BUD – Beneficial Use Determination

DEQ – Department of Environmental Quality

EQC – Environmental Quality Commission

IMD – Internal Management Directive

OAR – Oregon Administrative Rules

ORS – Oregon Revised Statutes

7. Directive

7.1 Framework for regulation of solid waste disposal facilities

In adopting Oregon's Solid Waste Management law in 1971, ORS 459, the Oregon legislature defined "solid waste" broadly and authorized DEQ to regulate facilities used to manage solid waste, defined as "disposal sites." Owners or operators of these facilities are required to obtain a solid waste disposal site permit from DEQ unless their facilities are excluded from this permit requirement. Some exclusions exist in statute. The EQC can by rule also exclude facilities that do not pose a significant risk to public health or the environment, and has adopted such rules.

The EQC has by rule created different types of permits tailored to specific types of facilities. Rules for each type of permit set performance standards and operational requirements designed to minimize potential risks to public health or the environment, and they often exclude low-risk facilities from some or all of these permit requirements. The EQC has also adopted rules for approving beneficial uses of solid waste in lieu of issuing a permit, as well as rules requiring certain management practices for both permitted and unpermitted facilities.

A few types of materials and uses of materials are specifically excluded from the definition of “solid waste” or from the applicability of that definition in ORS 459.007. DEQ does not have authority under solid waste management statutes or rules to regulate facilities that are not managing solid waste.

7.2 Determine whether a material is a solid waste

Examining whether a material such as woody biomass is a solid waste requires an analysis of the specific circumstances. Woody biomass is not categorically considered a solid waste. To be a solid waste, woody biomass must meet the definition of a solid waste and must not be excluded from that definition or from the application of that definition in ORS 459.007.

The definition of “solid waste” describes a comprehensive range of materials that are considered solid waste if they are “useless or discarded.” Whether or when a material becomes a solid waste is a fact-based determination and not subject to a bright line standard.

DEQ generally considers a material to be “discarded” if it is discarded, thrown away or abandoned by the generator. A material that is discarded becomes part of a waste stream and is a solid waste, even if it is also useful, recyclable or reclaimable.

DEQ generally considers a material to be “useless” when it cannot be productively used for any purpose, or if it was made for a particular purpose, when it cannot be used for the original purpose for which it was made, and is fit, if for anything, only for remanufacturing into something else or for some other use that differs substantially from the original use. If a material must be reclaimed, processed, transformed, mixed, purified or otherwise altered to be useful, it will generally be considered a waste until actually converted into a bona fide product.

Whether woody biomass is a solid waste will be clear in many cases. For others cases, staff will have to identify and consider multiple factors when evaluating whether it is useless or discarded by the generator. Additional information may be needed for that evaluation.

The following are some of the factors that have been relevant in determining whether woody biomass being used in a manufacturing process is a solid waste or a bona fide commodity or product. Each of these factors, if applicable, may indicate that a material is not a solid waste, and their absence may indicate it is a solid waste, though all relevant information should be considered in making that determination:

- The woody biomass is productively used “as-is” or with minimal processing.
- The woody biomass was intentionally produced for use as a commodity in trade.

- The woody biomass was manufactured or processed to specifications required.
- A legitimate market exists for the woody biomass.
- The woody biomass was purchased for fair market value.
- The woody biomass is stored and managed in a manner that preserves its value as a commodity or product.
- The woody biomass is not speculatively accumulated.
- The woody biomass is not mixed with a solid waste.
- The woody biomass does not contain contaminants not normally associated with woody biomass or that make it unsuitable for its intended use.
- A legitimate market exists for the product made from woody biomass.

The following scenarios help illustrate how these factors may be applied.

Scenario 1: Company A harvests trees from its property and leaves woody biomass on the forest floor. Company B operates an industrial facility that processes woody biomass into a product. B purchases woody biomass that meets specifications required for its operations from A for fair market value. B accepts only material that is screened to meet its specifications and is scheduled for use in its production process. B stores the material in a manner retaining its value and for a limited time before processing it into a saleable product. B has a market for that product.

If managed as described, the woody biomass is not useless or discarded, and is not a solid waste. B accepts only woody biomass screened to meet required specifications; it was not intentionally produced for use as a commodity, but is purchased at fair market value for use in the production process; it is stored to retain its value; and the product has a legitimate market.

Scenario 2: Scenario 1 with these changes: A delivers woody biomass to B free of charge. B plans to sort and grind the woody biomass and use it to produce innovative widgets that B hopes will attract a new market. After encountering several production problems, B manages to produce some widgets, but is unable to attract buyers. Woody biomass is stored in piles exposed to rain and weather, degrading its value for making widgets. Unsold widgets are stored outside under cover.

In this case the woody biomass may be useless or discarded by the generator and may be a solid waste. B did not purchase the woody biomass for fair market value, and it was not intentionally produced as a commodity or processed to specifications for B, although B's processing might be considered minimal. The woody biomass is not stored or managed as a valuable commodity. The market for the widgets produced is not well-established and may not be legitimate. If the unsold widgets are speculatively accumulated or degrade in storage, they may also be considered solid wastes. In this scenario, several factors support the conclusion the woody biomass is solid waste.

DEQ must also determine whether any exclusions from the definition of solid waste or application of that definition applies. Two exclusions that may be applicable to the management of woody biomass are OAR 340-093-030(91)(b) and (c):

- Woody biomass used for productive purposes in agricultural operations in accordance with OAR 340-093-030(91)(b). Example: woody biomass applied productively as a soil amendment at agronomic rate on agricultural lands.
- Woody biomass combusted as a fuel by a facility that has obtained an air quality permit. Burning wood pellets and hog fuel are examples of combustion (substances reacting with oxygen and transferring energy as heat and light). By definition, conversion technologies such as gasification, pyrolysis or torrefaction are not considered combustion, OAR 340-093-0030(28), and are not excluded under this provision.

If woody biomass is not solid waste in a particular case, DEQ lacks authority under its solid waste laws to regulate the facility's management of that material.

Implementation: Every material and situation may be different and should be evaluated on a case-by-case basis. Relevant factors should be identified and information gathered to evaluate those factors. To ensure consistency, staff should consult within their own and other regions and with their managers regarding the factors, information needed, and their analyses and conclusions. Staff should also ensure all information collected and considered has been properly documented.

7.3 Determine whether a facility is excluded from permit requirements

If a material or product has been determined to be a solid waste, DEQ must then determine whether regulation under a solid waste permit is required. The owner or operator of a facility used to manage woody biomass determined to be solid waste is required to obtain a disposal site permit from DEQ unless their facility is excluded from permit requirements by statute or rule.

The following are examples of the types of facilities excluded from permit requirements (under the conditions specified), that may be relevant to facilities managing woody biomass:

- Facilities excluded under OAR 340-093-0050(3), including certain material recovery and recycling facilities, facilities operating under a water quality permit issued under ORS 468B.050, facilities combusting wood or tire chips for energy recovery, facilities processing wood for energy recovery, and land disposal sites accepting only clean fill;
- Composting facilities excluded under OAR 340-096-0060(3); and
- Conversion technology facilities excluded under OAR 340-096-0160(4).

Implementation: Staff should review potential exclusions to determine whether a facility requires a disposal site permit. Additionally, staff should consult with their managers and other regional staff to ensure statewide consistency in their assessments. If any permitting exclusions apply, staff should document their conclusion and discuss with their manager.

7.4 Determine the permit and other regulations that apply

For facilities used to manage woody biomass that require a permit, staff should identify the type or types of permits that may apply and may assess the facility's potential for a beneficial use determination in lieu of a permit. For all facilities, staff should consider any other solid waste management rules applicable to both permitted and unpermitted facilities that may apply.

The following are the permit types that may apply to a facility managing woody biomass solid waste:

- Solid Waste Disposal Site Permit – The types of permits and their requirements are in OAR 340-093 through 340-096. Composting, conversion technology, and landfill are examples of permit types that may apply to management of woody biomass.
- Solid Waste Letter Authorization – Letter authorizations are permits issued for short-term, low-volume, low-risk disposal operations of up to six months if the proposed or existing disposal site is not likely to create a public nuisance, health hazard, or environmental problem. The authority for letter authorizations is at OAR 340-093-0050(5). Example: short-term pilot project testing the effectiveness of a mobile torrefaction unit in a low-fire risk area.

A beneficial use determination may also apply to a woody biomass facility otherwise required to obtain a permit.

- Beneficial Use Determination – DEQ may approve a beneficial use determination for the productive use of woody biomass as an alternative to issuing a disposal permit. The proposed use must meet performance criteria to demonstrate the use is productive and will not cause an adverse impact to public health, safety, welfare or the environment. DEQ does not regulate the material managed under a BUD as a solid waste as long as it is used in accordance with the BUD. BUDs may be case-specific or categorical. “Beneficial use” rules begin at OAR 340-093-0260. Example: Woody biomass used as soil amendment to establish a vegetative cover on a landfill.

Whether or not a facility requires a permit, it may be subject to other rules requiring certain solid waste management practices that apply to both permitted and non-permitted facilities. Those include requirements relating to:

- Storage and Collection, OAR 340-093-0210
- Transportation, OAR 340-093-0220
- Environmental performance standards for composting facilities, OAR 340-096-0070
- Environmental performance standards for conversion technology facilities, OAR 340-096-0170.

Staff should identify the permit and other rules that apply to a facility, evaluate options where those exist, and determine the permit and rules to pursue. They should also remind facility owners and operators they are responsible for identifying and complying with all requirements applicable to their operations.

Implementation: Staff should seek consistency throughout the state in determining the permit and other rules that apply to a facility. Where questions arise, the appropriate managers should be informed and discuss appropriate action. When staff conclude a facility is being used to manage solid waste and their assessment of the permit requirements and other applicable rules is consistent with prior decisions, staff should recommend the person responsible for a facility obtain and follow those requirements.

8. Record of Revisions to IMD

Stakeholders with technical expertise and interest in this topic were consulted in development of this guidance. DEQ will seek additional consultation on technical issues should the IMD require revision.

Revision	Date	Changes	Editor