



State of Oregon
Department of
Environmental
Quality

Oregon Department of Environmental Quality
April 15, 2019

Notice of Proposed Rulemaking

Compost Pathogen Reduction 2019

Table of Contents

Accessibility Information	1
Introduction	1
Request for Other Options	1
Overview	1
Procedural Summary	3
Statement of need	4
Rules affected, authorities, supporting documents	6
Fee Analysis	7
Statement of fiscal and economic impact.....	7
Federal relationship	11
Land use	11
EQC Prior Involvement	12
Advisory Committee.....	12
Public Engagement.....	13
Public Comment	14
Public Hearing	15

Accessibility Information

You may review copies of all documents referenced in this announcement at:
Oregon Department of Environmental Quality
700 NE Multnomah St., Ste. 600
Portland, OR, 97232

To schedule a review of all websites and documents referenced in this announcement, call Audrey O'Brien, Oregon Department of Environmental Quality, Materials Management, 700 NE Multnomah St., Ste. 600, Portland, OR, 97232, (503) 229-5072 (800-452-4011, ext. 5622 toll-free in Oregon).

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.

Introduction

DEQ invites public input on proposed permanent rule amendments to chapter 340 of the Oregon Administrative Rules.

Request for Other Options

During the public comment period DEQ asks for public comment on whether there are other options for achieving the rules' substantive goals while reducing the rules' negative economic impact on business.

Overview

Short summary

DEQ proposes that the Oregon Environmental Quality Commission approve the proposed permanent rule relating to pathogen reduction standards in composting. The proposed rule is identical to, and would make permanent, the temporary rule amendment the EQC adopted on February 25, 2019.

Brief history

DEQ added anaerobic digester regulations to DEQ composting rules during the 2012 Conversion Technology Rulemaking. These regulations included OAR 340-096-0140 (Special Rules Pertaining to Composting: Pathogen Reduction). OAR 340-096-0140 established methods for pathogen reduction, as well as testing schedules and pathogen limits. DEQ intended these provisions to ensure that facilities are designed and operated in a

manner that protects public health and the environment and that compost and digestate available to the public have met pathogen reduction limits.

In the fall of 2018, DEQ was reviewing an application for a permit modification to the Port of Tillamook Bay (POTB)'s anaerobic digester permit. DEQ identified an inconsistency in the pathogen reduction requirements of OAR 340-096-0140. In particular, OAR 340-096-0140 required different pathogen reduction requirements for digestate based on whether or not the generating digester was considered an "agricultural operation," as defined by ORS 467.120(2)(a). As a result, digestate produced by a digester on an agricultural operation (e.g., a farm) did not have to meet a specified pathogen reduction limit. However, digestate produced by an anaerobic digester not on a farm had to meet the limit set forth in OAR 340-096-0140, despite the fact that digestate from all anaerobic digesters in Oregon is applied to farm soil for crop production. EPA research indicates soil application of digestate completes the pathogen reduction process and renders the digestate safe for human health and the environment as long as it is applied at agronomic application rates.

On February 25, 2019, EQC adopted a temporary rule amendment to ensure that testing requirements for digestate applied to land as a fertilizer (e.g., "land applied") were the same regardless of whether the anaerobic digester producing the digestate qualifies as an "agricultural operation." The temporary rule amendment exempts digestate from having to meet the pathogen limits of OAR 340-096-0140 if the digestate is land applied at agronomic rates in compliance with federal requirements for biosolids under 40 C.F.R. §503.32(b)(5). These federal biosolids requirements are comprised of site restrictions on the application of digestate to ensure that biological processes within soil, and exposure to sun and weather, further reduce pathogens in digestate to safe levels for public health and the environment. They restrict farming practices, such as animal grazing and public access, on land where the digestate is applied for a period of time to allow further pathogen reduction. Compliance with these federal site restrictions, coupled with land application at agronomic rates, ensures that pathogen reduction for digestate occurs at safe levels that are environmentally protective.

The temporary rule will expire on August 24, 2019. The proposed rule would make the temporary rule amendment permanent.

Regulated parties

The proposed rule would affect digestate produced by anaerobic digesters that are not considered "agricultural operations" (as the term is defined by ORS 467.120(2)(a)). These affected anaerobic digesters would not have to meet the limit and testing requirements in OAR 340-096-0140 when producing digestate that is land applied at agronomic application rates and consistent with site restrictions in 40 C.F.R. §503.32(b)(5).

Outreach efforts

To collect information to improve the rule and give the public and affected parties an opportunity to comment, DEQ made the following outreach efforts:

- DEQ held a public comment period on the temporary rule amendment, before EQC adopted it, from February 7, 2019, to February 14, 2019. DEQ changed the proposed temporary rule amendment in response to comments.
- DEQ convened a fiscal advisory committee to review DEQ's estimate of the fiscal impact of the proposed rules. The committee met on April 1, 2019. This meeting was open to the public.

In addition, DEQ is accepting public comments on the permanent rule from April 15, 2019, to May 17, 2019. DEQ will also hold a public hearing on May 15, 2019.

Procedural Summary

More information

Information about this rulemaking is on this rulemaking's web page: [Composting rulemaking web page](#)

Public Hearing

DEQ plans to hold one public hearing. Anyone can attend a hearing in person, or by webinar or teleconference.

- May 15, 2019
- 6:00 p.m.
- 700 NE Multnomah Street
- Room L700 Conference Room, Third Floor (check in on 6th floor)
- Portland, 97232
- Teleconference phone number: 888-363-4734
- Participant code: 1910322
- Webinar link: [Webinar login page](#)
- Instructions on how to join webinar or teleconference: [Webinar/teleconference instructions](#)

How to comment on this rulemaking proposal

DEQ is asking for public comment on the proposed rules. Anyone can submit comments and questions about this rulemaking. A person can submit comments through an online web page, by regular mail or at the public hearing.

Comment deadline

DEQ will only consider comments on the proposed rules that DEQ receives by 4 p.m., on May 17, 2019.

Submit comment online

[Composting comment page](#)

Note for public university students:

ORS 192.345(29) allows Oregon public university and OHSU students to protect their university email addresses from disclosure under Oregon's public records law. If you are an Oregon public university or OHSU student you may omit your email address when you complete the online form to submit a comment.

By mail

Oregon DEQ
Attn: Audrey O'Brien
700 NE Multnomah St., Suite 600
Portland, OR 97232-4100

At hearing

May 15, 2019

Sign up for rulemaking notices

Get email or text updates about this rulemaking by signing up through this link: [Composting mailing list signup](#); or on the rulemaking web site: [Composting Pathogen Reduction 2019 rulemaking web page](#).

Get email or text updates about other, future DEQ rulemaking by signing up through this link: [DEQ Email Notice List](#).

What will happen next?

DEQ will include a written response to comments in a staff report DEQ will submit to the Environmental Quality Commission. DEQ may modify the rule proposal based on the comments.

Present proposal to the EQC

Proposed rules only become effective if the Environmental Quality Commission adopts them. DEQ plans to present the proposed rules to the commission for a decision at its meeting on July 18-19, 2019.

Statement of need

What need would the proposed rule address?

The proposed rule would address the need for a consistent approach to pathogen reduction standards for digestate applied to soil on farms.

Before the temporary rule adoption, OAR 340-096-0140 required all digestate produced by anaerobic digesters to meet certain pathogen reduction standards. However, agricultural operations producing digestate only for on-farm use were not subject to this rule. This created an inconsistency: digestate produced for on-farm use by anaerobic digesters not considered agricultural operations had to meet pathogen reduction standards that digestate produced for on-farm use by agricultural operations were exempt from. These pathogen reduction requirements were modeled on EPA's Biosolids 503 regulations for Class A biosolids and were intended for composting operations. The goal of Class A processes is to reduce the level of pathogens below the level at which they may cause disease when exposed to the public. Class A biosolids may be used without site restrictions, and must be tested to show that the microbiological requirements are met. As a result, in producing digestate for on-farm use, anaerobic digesters not located on agricultural operations, in order to meet pathogen reduction limits, would need to operate the digester for a longer period of time or at hotter temperatures, or both, than a digester located at an agricultural operation.

In February, the EQC adopted a temporary rule amendment to correct this inconsistency. The temporary rule ensured that digestate would be exempt from the pathogen reduction limits, regardless of whether the digester is considered an agricultural operation or not, if the digestate is applied to land at agronomic rates and consistent with site restrictions set forth in 40 C.F.R. §503.32(b)(5). These site restrictions are taken from federal Biosolids 503 regulations for Class B biosolids, which do not have to meet Class A biosolids pathogen reduction requirements but are restricted to application to the land as fertilizer. These site restrictions include, for instance, restricting for a period of time public access and certain farming practices (such as animal grazing) on land to which Class B biosolids have been applied. Without a permanent rule change, however, the temporary rule will expire in August 2019.

How would the proposed rule address the need?

The proposed rule addresses the need described above by ensuring that digestate is exempt from pathogen reduction testing limits when it is applied to soil at agronomic application rates and under federal site restrictions, regardless of whether or not the digester is located on an agricultural operation.

If the proposed rule is not adopted, the temporary rule would expire in August 2019 and the inconsistent application of pathogen reduction testing limits, to digestate produced by agricultural operations for on-farm use and digestate produced by digesters not considered agricultural operations for on-farm use, would be reinstated.

How will DEQ know the rule addressed the need?

There is currently one DEQ permitted anaerobic digester this rule change directly affects. DEQ expects another to be directly affected in spring of 2020. DEQ will work with the Oregon Department of Agriculture in monitoring these anaerobic digesters, along with anaerobic digesters located on agricultural operations, to ensure that pathogen reduction standards of their digestate is consistent. DEQ will know the need was met if digester operators can operate safely without being subject to inconsistent or unnecessary pathogen reduction requirements.

Rules affected, authorities, supporting documents

Lead division

Land Quality

Program or activity

Materials Management

Chapter 340 action

Amend – OAR

340-096-0140 (permanent)

Statutory authority – ORS

468.020 468.065 459.045 459A.025

Statutes Implemented – ORS

459.005 459.015 459.205

Documents relied on for rulemaking

Document title	Document location
EQC Staff Report for Composting Special Pathogen Reduction Temporary Rule 2019 (Feb. 25, 2019)	https://www.oregon.gov/deq/EQCdocs/02252019_ItemA_CompostTempRules.pdf
40 Code of Federal Regulations Part 503 – Standards for the Use or Disposal of Sewage Sludge; Subpart D – Pathogens and Vector Attraction Reduction	https://www.govinfo.gov/content/pkg/CFR-2018-title40-vol32/xml/CFR-2018-title40-vol32-part503.xml
EPA Environmental Regulations and Technology – <i>Control of Pathogens and Vector Attraction in Sewage Sludge</i>	https://www.epa.gov/sites/production/files/2015-07/documents/epa-625-r-92-013.pdf
Washington Dept. of Ecology - <i>Guidelines: Operating an Anaerobic Digester Exempted From Solid Waste Handling Permit</i>	https://fortress.wa.gov/ecy/publications/documents/0907029.pdf

Fee Analysis

This rulemaking does not involve fees.

Statement of fiscal and economic impact

Fiscal and Economic Impact

This rulemaking’s purpose is to permanently adopt the temporary rule amendments to the compost rules that the Environmental Quality Commission adopted on February 25, 2019. Therefore, adopting the proposed rule amendments will not have any fiscal impact different from, or in addition to, the impact the temporary rule amendments imposed.

The temporary rule amendments corrected an inconsistency in the treatment of digestate under OAR 340-096-0140. The temporary rule amendments corrected this inconsistency and clarified that digestate, when applied to land as a fertilizer (e.g., “land applied”) at agronomic rates in compliance with federal biosolids requirements as set forth in 40 C.F.R. §503.32(b)(5), does not need to meet pathogen limits for fecal coliform, regardless of whether the anaerobic digester is an agricultural operation or not. (Land application of digestate at agronomic rates and in compliance with federal biosolids site restrictions assure

that pathogen reduction is to safe levels that are environmentally protective.) The temporary rule amendments are effective from February 26, 2019 to August 24, 2019.

When compared to the version of OAR 340-096-0140 in effect before February 26, 2019, the temporary and proposed permanent rule amendments could have a positive fiscal impact on DEQ-permitted anaerobic digesters that do not meet the standards for being considered an agricultural operation. Such anaerobic digesters, when producing digestate for land application, would not have to operate their anaerobic digestion technologies either for as long of a time, or at as high of a temperature, or both, in order to meet the previously more stringent pathogen reduction requirements. This may result in a savings in energy and labor costs.

The remainder of this fiscal impact statement will further describe the impact that adopting the proposed changes could cause, when compared to the version of OAR 340-096-0140 that was in effect before February 26, 2019.

Statement of Cost of Compliance

State and federal agencies

DEQ anticipates no direct or indirect impact on state or federal agencies.

DEQ

Direct Impacts

There are no anticipated direct impacts to DEQ.

Indirect Impacts

There are no anticipated indirect impacts to DEQ.

Local governments

Direct Impacts

There are no anticipated direct impacts to local governments.

Indirect Impacts

There are no anticipated indirect impacts to local governments.

Public

Direct Impacts

DEQ does not anticipate direct impacts to members of the public because they are not subject to the rule.

Indirect Impacts

There are no anticipated indirect impacts to the public.

Large businesses - businesses with more than 50 employees

Direct Impacts

DEQ anticipates a direct impact to one large business in the future. The rule amendment will directly affect Shell New Energies, a DEQ-permitted anaerobic digester in Oregon. While Shell New Energies has fewer than ten employees, it is a subsidiary of Shell Oil, a national company.

The direct impact on Shell New Energies would likely be a decrease in facility operational costs, if the facility starts to process manure, as planned in the future. For digestate that will be land applied at agronomic rates in compliance with federal biosolids site restrictions, the digester would not have to process its feedstock (e.g., the material that is used in anaerobic digestion) for either as long or at as high of a temperature, or both, as would be required in order to achieve the pathogen reduction limits set forth in OAR 340-096-0140.

Indirect Impacts

There are no indirect impacts to large businesses.

Small businesses – businesses with 50 or fewer employees

Direct Impacts

DEQ anticipates a direct impact to the anaerobic digester of one small business, the Port of Tillamook Bay. The rule amendment would likely prevent an increase in facility operational costs because the anaerobic digester would potentially not need to process the feedstock for either as long, or at an increased temperature, or both, to achieve pathogen reduction limits.

Indirect Impacts

There are no indirect impacts to small businesses.

a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

The proposed rule amendment will affect the anaerobic digester of at least one small business, the Port of Tillamook Bay.

b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

The proposed rule change will not require any additional administrative activities by the Port of Tillamook Bay's anaerobic digester.

c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

The proposed amendments will not require any business to use additional resources.

d. Describe how DEQ involved small businesses in developing this proposed rule.

DEQ spoke with the two affected anaerobic digester operators about the amendment. DEQ will also conduct a public comment period during which any person will be able to comment about the rule changes.

Documents relied on for fiscal and economic impact

DEQ did not use any documents to determine fiscal impact. DEQ discussed the fiscal impact of this rule with affected anaerobic digester facility operators in developing its staff report for the temporary rule.

Advisory committee fiscal review

DEQ appointed an advisory committee.

As ORS 183.33 requires, DEQ asked for the committee's recommendations on:

- Whether the proposed rules would have a fiscal impact,
- The extent of the impact, and
- Whether the proposed rules would have a significant adverse impact on small businesses; if so, then how DEQ could comply with ORS 183.540 reduce that impact.

The committee reviewed the draft fiscal and economic impact statement. The committee agreed with DEQ that the proposed rule, when compared to the version of OAR 340-096-0140 in effect before the temporary rule's adoption, would likely result in a decrease in the cost of compliance for anaerobic digesters not considered agricultural operations. The committee reviewed and discussed the fiscal impact statement and determined that the proposed rule would not have a significant adverse impact on small businesses in Oregon.

Advisory committee members' comments are summarized in written meeting minutes posted on the advisory committee web page here: [Composting Pathogen Reduction 2019](#).

Housing cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel. DEQ determined the proposed rules would have no effect on the development costs because the DEQ Solid Waste Composting rules only affect DEQ-permitted composting facilities.

Federal relationship

ORS 183.332, 468A.327 and OAR 340-011-0029 require DEQ to attempt to adopt rules that correspond with existing equivalent federal laws and rules unless there are reasons not to do so.

The proposed rules are not different from or in addition to federal requirements.

Land use

Land-use considerations

In adopting new or amended rules, ORS 197.180 and OAR 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with state wide land-use planning goals and local acknowledged comprehensive plans.

Under OAR 660-030-0005 and OAR 340 Division 18, DEQ considers that rules affect land use if:

- The statewide land use planning goals specifically refer to the rule or program, or
- The rule or program is reasonably expected to have significant effects on:
 - Resources, objectives or areas identified in the statewide planning goals, or
 - Present or future land uses identified in acknowledged comprehensive plans

DEQ determined whether the proposed rules involve programs or actions that affect land use by reviewing its Statewide Agency Coordination plan. The plan describes the programs that DEQ determined significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

Goal	Title
5	Natural Resources, Scenic and Historic Areas, and Open Spaces
6	Air, Water and Land Resources Quality
11	Public Facilities and Services

- 16 Estuarine Resources
- 19 Ocean Resources

Statewide goals also specifically reference the following DEQ programs:

- Nonpoint source discharge water quality program – Goal 16
- Water quality and sewage disposal systems – Goal 16
- Water quality permits and oil spill regulations – Goal 19

Determination

DEQ determined that the rule being amended in this rulemaking affects programs or activities that the DEQ State Agency Coordination Program considers a land-use program.

DEQ’s statewide goal compliance and local plan compatibility procedures adequately cover the proposed rule. Under OAR 340-018-0050(2)(a), ensuring compatibility with acknowledged comprehensive plans may be accomplished through a Land Use Compatibility Statement. The proposed rule change to OAR 340-096-0140 would affect pathogen reduction standards that a composting facility must meet for its compost or digestate. Under OAR 340-096-0080, a Land Use Compatibility Statement is required to obtain a composting facility permit.

EQC Prior Involvement

DEQ initially presented the proposed temporary rule amendments to the EQC at its January 25, 2019, meeting. At the EQC’s request, DEQ held a public comment period on the temporary rule. Following the public comment period and revisions to the proposed temporary rule, the EQC approved the temporary rule at a second meeting on February 25, 2019.

Advisory Committee

Background

DEQ convened the Composting Pathogen Reduction 2019 Advisory Committee. The committee included representatives from an agricultural operation that operates an anaerobic digester, water interests from Tillamook County, where an off-farm anaerobic digester is expected to become operational soon, and dairy farmers. The committee met once.

The committee’s web page is located at: [Composting Pathogen Reduction 2019](#).

The committee members were:

Composting Pathogen Reduction 2019 Advisory Committee

Name	Representing
Tim Bielenberg	Oak Lea Dairy, agricultural operations and anaerobic digesters
Tammy Dennee	Oregon Dairy Farmers Association, dairy farmers
Kristan Mitchell	Oregon Refuse and Recycling Association, composting facilities
Ray Monroe	Tillamook County Soil and Water Conservation District, water
Rob Russell	Tillamook Bay Watershed Council, water

Meeting notifications

To notify people about the advisory committee's activities, DEQ:

- Sent GovDelivery bulletins, a free e-mail subscription service, to the following lists:
 - Rulemaking
 - Composting
- Added advisory committee announcements to DEQ's calendar of public meetings at [DEQ Calendar](#).
- On April 15, 2019, DEQ provided notice of meetings and links to committee information through postings on Facebook and Twitter.

Committee discussions

Beyond the recommendations described under the Statement of Fiscal and Economic Impact section above, the committee appreciated DEQ's explanation for the reasons for the rulemaking and reviewed the proposed rule language. The committee did not have additional comments for DEQ.

Public Engagement

Public notice

DEQ provided notice of the proposed rulemaking and rulemaking hearing on April 15, 2019, by:

- Filing notice with the Oregon Secretary of State for publication in the May 2019 Oregon Bulletin;
- Posting the Notice, Invitation to Comment and Draft Rules on the web page for this rulemaking, located at: [Composting rulemaking](#)
- Emailing 11,438 interested parties on the following DEQ lists through GovDelivery:
 - Rulemaking
 - Composting

- Emailing the following key legislators required under ORS 183.335:
 - Senator Michael Dembrow, Chair, Senate Committee on Environment and Natural Resources
 - Senator Alan Olsen, Vice-chair, Senate Committee on Environment and Natural Resources
 - Representative Ken Helm, Chair, House Committee on Energy and Environment
 - Representative E. Werner Reschke, Vice-chair, House Committee on Energy and Environment
 - Representative Sheri Schouten, Vice-chair, House Committee on Energy and Environment
- Emailing advisory committee members,
- Postings on Twitter and Facebook
- Posting on the DEQ event calendar: [DEQ Calendar](#)

Public Comment

How to comment on this rulemaking proposal

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Comment deadline

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[Composting rulemaking comments](#)

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By mail

Oregon DEQ
Attn: Audrey O'Brien
700 NE Multnomah St., Suite 600
Portland, OR 97232-4100

At hearing

May 15, 2019

Public Hearing

Public hearings

DEQ plans to hold one public hearing. Anyone can attend a hearing in person, or by webinar or teleconference.

Information about the public hearing:

- Date: May 15, 2019
- Start time: 6:00 p.m.
- Street address: 700 NE Multnomah Street
- Room: Conference Room, Third Floor
- City: Portland
- Teleconference phone number: 888-363-4734
- Participant code: 1910322
- Webinar link: [webinar link](#)
- Instructions on how to join webinar or teleconference: [Webinar/teleconference instructions](#)

DEQ will consider all written comments received at the hearings listed below before completing the draft rules. DEQ will summarize all comments and respond to comments in the Environmental Quality Commission staff report.

Any person can submit comments on the proposed rules as described in the Introduction section of this document.