



State of Oregon Department of Environmental Quality

Notice of Proposed Rulemaking

May 31, 2024

Solar Noise 2024 Rulemaking

This package contains the following documents:

- Notice of Rulemaking
- Draft Rules – Edits Highlighted

Note for Readers:

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Introduction

DEQ invites public input on proposed permanent rule amendments to chapter 340 of the Oregon Administrative Rules. DEQ is proposing rule amendments to chapter 340, Division 35.

This rulemaking is intended to update OAR 340-035-0035 (“The Noise Control Regulations for Industry and Commerce”) so that the wind specific provisions allowing for various modifications to the standard noise rules for wind energy facilities also apply to solar energy facilities. The objective is to streamline the process for obtaining a site certificate for solar energy projects in the same way and for the same reasons the rules were modified for wind projects.

Overview

Since 2017, there has been a significant uptick in the number of solar PV energy projects seeking approval through the Energy Facility Siting Council (EFSC). Active stage projects in Oregon that fall under EFSC’s jurisdiction (“jurisdictional projects”) equate to 5,198 MW on 54,227 acres (84.72 sq. miles) of land. It is expected that the number of solar PV projects will continue to increase as one forecast shows that 10,550 MW of solar will be needed by 2050. *See 2022 Oregon Department of Energy Biennial Energy Report, page 382; Original Study: Oregon Clean Energy Pathways - Evolved Energy Research.* There are noise sources that are associated with these utility-scale solar PV energy projects and clear rules are needed to regulate them. The approval of state jurisdictional projects is handled by EFSC but reference Division 35 on noise-related matters which fall under the authority of the Environmental Quality Commission (EQC).

Despite DEQ no longer implementing a noise control program, the Division 35 rules remain applicable to EFSC jurisdictional projects and the EQC has amended Division 35 multiple times since 1991. For example, the EQC amended Division 35 in 2004 to address noise associated with an increasing number of wind energy facilities. The goal of that rulemaking was to customize the noise regulations to the special characteristics of wind energy facilities while continuing to protect the public from unreasonable or harmful noise levels.

At this time, Oregon is facing an increasing number of solar PV energy projects. These projects have some similar characteristics to wind energy facilities, are generally sited in similar rural settings, and have some of the same noise sources. This rulemaking proposes to add language for solar PV energy projects in alignment with the existing regulations for wind energy projects.

Several applications to EFSC for energy facility siting certificates have modeled exceedances of noise standards under Division 35 but have very little flexibility in how they can mitigate those impacts. Additional flexibility was added to Division 35 in the 2004 rulemaking for wind energy projects and those provisions were helpful in

permitting those projects. By adding solar PV energy projects through this rulemaking, the additional flexibility could encourage the production of more renewable energy for Oregon.

Procedural Summary

More information

Information about this rulemaking is on this rulemaking's web page: [Noise 2024](#).

Public Hearings

DEQ plans to hold one public hearing virtually.

Date: June 17, 2024

Time: 10 a.m. PT

[Join via Zoom](#)

Join by phone:

Call-in number: 888-475-4499 US Toll-free

Meeting ID: 872 6015 1217

How to comment on this rulemaking proposal

DEQ is asking for public comment on the proposed rules. Anyone can submit comments about this rulemaking by email, 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 June 21, 2024**.

Submit comment by email to:

Noise.2024@deq.oregon.gov

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, notify DEQ that you wish to keep your email address confidential.

By mail

Oregon DEQ

Attn: Solar Noise 2024 Rulemaking

700 NE Multnomah St., Room 600

Portland, OR 97232-4100

Sign up for rulemaking notices

Get email or text updates about this rulemaking by signing up on the rulemaking website: [Noise 2024](#).

What will happen next?

DEQ will include a written response to comments in a staff report DEQ will submit to the DEQ Director. The Environmental Quality Commission delegated its authority to the DEQ Director to consider the proposed rule for adoption. DEQ may modify the rule proposal based on the comments.

The Proposed rules only become effective if the DEQ Director, under the delegated authority of the EQC, adopts them. The Director will consider final adoption of the proposed rule changes on or after July 17, 2024.

Summary of proposed changes

Rules Summary

As OAR 166-500-0030(1)(e) requires, the following are included to provide a brief summary of the proposed new rules and existing rules affected by this rulemaking.

OAR Chapter 340, Division 35

| Rule Number | Rule Title | Explanation |
|--------------------|---|---|
| 340-035-0035 | Noise Control Regulations for Industry and Commerce | Amend OAR 340-035-0035(1)(b)(B(iii)) to allow solar energy generation facilities to demonstrate compliance with noise regulations in the same manner as allowed for wind electrical generation facilities |

Statement of need

The rules or categories below follow the order of description above in the summary of proposed changes but with some additional detail.

| Proposed Rule or Topic | Discussion |
|--|---|
| What need would the proposed rule address? | The need to make the siting of solar projects more efficient and feasible where landowners are willing to allow a waiver for noise exceedances. |
| How would the proposed rule address the need? | The proposed rules would address this need by providing baseline audio level for background measurement, saving developers time if they don't wish to measure the audio level themselves. It would also address this need by allowing noise sensitive receptor property owners the ability to give developers a waiver of the 10db sound exceedance, if they choose to do so. |
| How will DEQ know the rule addressed the need? | The siting division at ODOE will see these efficiencies when processing applications for solar projects. |

Federal relationship

Relationship to federal requirements

The intent of this rulemaking is to amend OAR 340-035-0035 (Division 35: Noise Control Regulations for Industry and Commerce) to allow solar energy generation facilities to demonstrate compliance with state noise regulations in the same manner as currently allowed for wind electrical generation facilities. The proposed amendment is in addition to federal requirements since there are no federal regulations on the standards and procedures for the state siting process for renewable energy facilities located in Oregon.

DEQ determined that there are administrative, technological, public health reasons for exceeding applicable federal requirements in the proposed rule amendment. In 2004, DEQ amended OAR 340-035-0035 in response to an increasing number of wind projects planned for construction in Oregon to increase the efficiency (and feasibility in some cases) of siting wind projects. Today, an increasing number of solar projects are planned for Oregon, and there is currently no recourse outside of mitigation for solar projects that exceed the noise degradation standard. As with wind projects, this

rulemaking provides a pathway for solar project developers to obtain a waiver from the affected landowner where the proposed increase in sound levels exceeds 10dBA. In addition, the amended rule streamlines the siting process for developers to build solar energy projects, as done with wind energy projects twenty years ago, and further reduces the administrative burden on the Energy Facility Siting Council. Finally, the rule amendment could encourage the production of more renewable energy for Oregon, potentially in environmental justice communities disproportionately burdened by the effects of climate change and air contamination. Transitioning from fossil fuels to renewable energy contributes to the overall reduction of greenhouse gas emissions, achieves public health benefits from reduced emissions of other air contaminants, and enhances public welfare for Oregon.

What alternatives were considered?

DEQ and ODOE staff considered the alternative of not proposing this rule change, but that would not provide the anticipated benefits of this change—to provide consistent treatment to both solar and wind energy projects.

Rules affected, authorities, supporting documents

Lead division

Office of Greenhouse Gas Programs

Program or activity

Amend Division 35 Noise Control Regulations to allow solar energy generation facilities to demonstrate compliance with noise regulations in the same manner as allowed for wind electrical generation facilities.

Chapter 340 action

| Amend | | | | |
|--------------|--|--|--|--|
| 340-035-0035 | | | | |

| Statutory Authority - ORS | | | | |
|---------------------------|-------------|--|--|--|
| ORS 467.030 | ORS 468.020 | | | |

| Statutes Implemented - ORS | | | | |
|----------------------------|--|--|--|--|
| ORS 467.030 | | | | |

Documents relied on for rulemaking

| Document title | Document location |
|--|-----------------------------|
| 2022 Oregon Department of Energy Biennial Energy Report | Oregon Department of Energy |
| Applications for site certifications - Energy Facility Siting Council. | Oregon Department of Energy |

Fee analysis

Every applicant for a site certificate for a solar generating plant pays for the actual costs of ODOE staff in the processing of their application. The proposed rule amendments do not directly create or change any existing fees. However, it is anticipated that by streamlining the application process, applicants will see reduced application costs.

Statement of fiscal and economic impact

The role of the Oregon Department of Energy, Energy Facility Siting Council is to responsibly balance the impacts of state jurisdictional energy facilities against the need for those facilities through a robust, inclusive and transparent siting process. Because the noise of equipment and infrastructure at these facilities may exceed the threshold for public health and safety, as established by the Environmental Quality Commission under OAR chapter 340, division 35, the certification process for these projects must include a noise requirement.

In 2004, the EQC adopted a rule amendment to its Noise Control Regulations under Division 35 for wind electrical generation facilities. The rule change established a noise threshold for wind projects in lieu of a requirement for developers to conduct costly noise studies. It also allowed landowners the flexibility to waive the ambient noise degradation standards for their properties while adhering to the noise standards for new industrial and commercial sources.

The certification of new solar photovoltaic energy generation facilities is hindered by the lack of language in OAR 340-035-0035 regarding the minimum noise requirement. In partnership with ODOE, DEQ proposes a rule amendment to allow solar photovoltaic energy generation facilities to demonstrate compliance with noise regulations, in the same manner as adopted by the EQC for wind electrical generation facilities.

Fiscal and economic impact of the proposed updates

The purpose of this rulemaking is to streamline the siting process for solar projects. Not having to perform initial noise surveys to set a baseline for noise levels is a cost savings equal to the cost of performing said surveys, which will vary by the location and size of the solar project in question.

The landowner waivers for noise degradation should result in projects going forward that might otherwise have a more difficult time doing so. Projects that would have already gone forward will do so more swiftly than under the present rules where waivers are not possible. This could have positive fiscal and economic impacts resulting from the development and operation of new energy facilities, along with possible financial incentives developers may offer landowners in order to receive a noise related waiver.

Statement of cost of compliance

State agencies

For the Oregon Department of Energy, the proposed amendment will require fewer resources, as staff for EFSC will no longer be required to review data related to initial noise level surveys. This will enable staff resources to be deployed on other matters.

Local governments

These new rules are not anticipated to result in any changes with respect to local governments.

Public

Residential, commercial, and industrial spaces are not directly impacted by changes to the ambient noise standards set forth in Division 35. Solar projects in the state are still required to meet the same noise standards. It is possible that additional solar projects may occur, which has a whole host of possible implications, e.g., more land developed for solar projects, but this is extremely difficult to estimate. It is possible that no additional projects are developed as a result of these rule changes.

Large businesses - businesses with more than 50 employees

DEQ anticipates that approximately 12-15 large businesses may be directly impacted by the proposed rule amendments, but it is hard to quantify. Presumably a less onerous siting process for solar projects could potentially attract additional developers, increasing the number impacted by these rule changes.

Small businesses – businesses with 50 or fewer employees

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

Based on comments made by the Fiscal Impact Advisory Committee for previous energy siting related rulemakings, we estimate that there may be approximately 12-15 energy developers operating in Oregon that have 50 or fewer employees, although to our understanding, many of these companies utilize parent companies or affiliates as a core part of their business model and thus may not qualify as small businesses. However, assuming they all qualify as small businesses, and assuming all were to apply for a site certificate in the future (which is not expected), our best estimate is that there are potentially 12-15 small businesses that could be affected by the proposed rules.

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

If a small business were to apply for a site certificate in the future, the impacts would be identical to those experienced by other applicants and certificate holders. Such impacts are not expected to be significant nor disproportionately affect small businesses as compared to other businesses because the impact of the rules is not related to the size of the business proposing a project but to the size and location of the project being proposed.

The expected reporting, recordkeeping and administrative activities and other costs required to comply with the rules would be similar to those required under the current

rules, with the exception that fewer work would need to be done to establish the default noise floor as part of an application for a site certificate.

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

In short, there is no anticipated increased equipment, supplies, labor, or administration required for small businesses to comply with the rule as currently proposed.

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

These rules are not likely to have an impact on small businesses given the nature of the parties applying for solar siting permits. To the extent that small businesses might be impacted, their interests are represented through organizations like Oregon Solar and Storage Industries Association, who was consulted as part of this rulemaking.

Documents relied on for fiscal and economic impact

| Document title | Document location |
|---|---|
| Program data – Permit Applications | Oregon Department of Energy, Energy Facility Siting Division |
| Oregon Health Authority Public Health Division 2020 Report - Climate and Health in Oregon | Oregon Climate and Health Report |
| U.S. Census Bureau – 2020 American Community Survey 5-Year Estimate (Table S1903) | https://data.census.gov/table/ACSST5Y2020.S1903?q=United%20States&t=Income%20and%20Earnings&q=040XX00US41&tid=ACSST5Y2020.S1903 |

Advisory committee fiscal review

ORS 183.335 requires DEQ to ask for the committee’s feedback on:

- Whether the proposed rule amendments would have a fiscal impact
- If yes, the extent of the impact, and how DEQ might mitigate any impacts
- Whether the proposed rule amendments would have a significant adverse impact on small businesses, and if yes, how might DEQ reduce that impact.

The committee reviewed the draft fiscal and economic impact statement on April 11, 2024, including being asked for feedback on the questions above, and the committee members shared their feedback with DEQ and ODOE staff, who have documented those comments.

Housing cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rule 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 rule amendments will have no impact on the supply of housing or land for residential development. The proposed rule amendments will not impact the cost of labor or administration related to such development.

Racial equity and environmental justice considerations

Communities subjected to environmental injustice are impacted by climate change first and hardest¹. Climate change and air pollution represent additional cumulative impacts that exacerbate the disparities between different racial groups in Oregon. Lower-income Oregonians are disproportionately non-white², and are less able to adapt to hotter summers, increasing pollution from wildfires, and are more likely to work in frontline occupations. Frontline workers, and especially those that work outdoors such as farmworkers, who are majority-Latin American in Oregon, bear disproportionate exposure to the negative impacts of climate change and worsening air quality.

These proposed rule changes are designed to accelerate the adoption of solar energy by reducing the complexity and difficulty of siting solar projects in the state while still protecting the people and resources of the state of Oregon. Those who are exposed to the worst harms of polluted air and hotter summers stand to benefit the most from cleaner air and reduced pollution from fossil fuel emissions from natural gas power plants.

¹ [Oregon Health Authority Public Health Division. 2020 Report -Climate and Health in Oregon.](#)

² [U.S. Census Bureau – 2020 American Community Survey 5-Year Estimate](#) (Table S1903 - Median Income in the Past 12 Months (In 2020 Inflation-Adjusted Dollars)).

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 statewide 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, objects, or areas identified in the statewide planning goals, or
- Present or future land uses identified in acknowledge 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 these proposed rule amendments will affect land use under OAR 660-030-0005.

These rules as implemented will potentially enable some solar projects to move forward that otherwise would not be able to do so. This will result in the development of land to be repurposed for energy production.

The proposed rule amendments would be consistent with state land use law because all energy projects certified by the Energy Facility Siting Council must comply with all state

land use laws, subject to EFSC's authority, and these proposed changes do not change this.

Advisory Committee

Background

DEQ and ODOE convened an advisory committee for the Solar Noise 2024 Rulemaking. In selecting committee members for the advisory committee some key considerations for DEQ and ODOE included:

- Size – Large enough to represent affected parties and scope of potential rule changes, but small enough so members had opportunity to provide expertise and share experiences.
- Balance – Balancing representation of affected parties and stakeholders so a range of perspectives and experience are shared
- Capacity – Identifying topics and program issues where individual committee members participation and feedback might be most impactful, supporting members in effectively participating on the committee, identifying committee members with extensive networks, including connections to communities based and environmental justice organizations to leverage those connections to inform this rulemaking process and encourage public comment

The advisory committee met one time in April 2024. The committee’s web page is located at: <https://www.oregon.gov/deq/rulemaking/Pages/noise2024.aspx>.

The committee members were:

| Rulemaking Name Advisory Committee | |
|------------------------------------|---|
| Name | Representing |
| Branden Pursinger | Association of Oregon Counties |
| David Lawlor | Next Era Energy |
| Jack Watson | Oregon Solar & Storage Industries Association (OSSIA) |
| Maureen Thomas | Community stakeholders |
| Max Greene | Renewables Northwest |
| Troy Jones | Community stakeholders |
| Yvonne Scott | Community stakeholders |

Meeting notifications

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

- Sent GovDelivery bulletins, a free e-mail subscription service, to the following subscribers lists:
 - Clean Fuels Program

- Climate Protection Program
- Greenhouse Gas Programs
- Greenhouse Gas Reporting
- Third Party Verification Program
- Added advisory committee announcements to DEQ's calendar of public meetings at [DEQ Calendar](#).

Committee discussions

In addition to the recommendations described under the Statement of Fiscal and Economic Impact section above, the committee was asked to discuss and provide input on the proposed amendments for this rulemaking, Advisory committee agendas, meeting materials, presentations and summaries are available on the rulemaking webpage.

The advisory committee was also asked to review and provide input on the draft racial equity statement and environmental justice considerations. The public was also invited to provide verbal and written comment. Comments received from this meeting are available on the Solar Noise 2024 rulemaking website [here](#).

Public engagement

Public notice

DEQ provided notice of the proposed rulemaking and rulemaking hearing by:

- On May 29, 2024 filing notice with the Oregon Secretary of State for publication in the June 2024 Oregon Bulletin;
- Posting the Notice, Invitation to Comment and Draft Rules on the web page for this rulemaking, located at: [Noise 2024](#)
- Emailing approximately 26,645 interested parties on the following DEQ lists through GovDelivery:
 - DEQ Public Notices
 - Rulemaking
 - Clean Fuels Program
 - Climate Protection Program
 - Greenhouse Gas Programs
 - Greenhouse Gas Reporting
 - Third Party Verification Program
- Noticing list of site certificate applicants for Energy Facility Siting Center through ClickDimensions.
- Emailing the following key legislators required under [ORS 183.335](#):
 - Senator Rob Wagner, President of the Senate
 - Representative Julie Fahey, Speaker of the House
- Emailing the Department of Land Conversation and Development required under OAR 340-018-0070(3) and OAR 660-030-0005(2)
- Emailing advisory committee members
- Posting on the DEQ event calendar: [DEQ Calendar](#)

Public hearing

DEQ plans to hold one public hearing virtually only. Anyone can attend the hearing by webinar or teleconference.

Date: June 17, 2024

Time: 10 a.m. PT

Join via [Zoom](#)

Meeting ID: 872 6015 1217

DEQ will consider all comments and testimony received before the closing date. DEQ will summarize all comments and respond to comments in the Director's Report.

Draft Rules – Edits Highlighted

Key to Identifying Changed Text:

[New/inserted text](#)

Division 35 NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind [or solar](#) energy facility of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities.

Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)–(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind [or solar](#) energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind [or solar](#) energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The “actual ambient background level” is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, [and for wind energy facilities](#) synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. “Actual ambient background level” does not include noise generated or caused by the [proposed](#) wind [or solar](#) energy facility.

(III) The noise levels from a wind [or solar](#) energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind [or solar](#) energy facility is located. The easement or covenant must authorize the wind [or solar](#) energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(IV) For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility’s turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.

(V) For purposes of determining whether an operating wind energy facility complies with the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are measured when the facility’s nearest wind turbine is operating over the entire range of wind speeds between cut-in speed and the wind speed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled. The facility complies with the noise ambient background standard if the increase in noise over either the assumed ambient

noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range of wind speeds.

(VI) For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine's maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at the maximum sound power level. [Table not included. See ED. NOTE.]

(VII) For purposes of determining whether an operating wind energy facility satisfies the Table 8 standards, noise generated by the energy facility is measured at the appropriate measurement point when the facility's nearest wind turbine is operating at the wind speed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled. [Table not included. See ED. NOTE.]

(c) Quiet Areas. No person owning or controlling an industrial or commercial noise source located either within the boundaries of a quiet area or outside its boundaries shall cause or permit the operation of that noise source if the statistical noise levels generated by that source exceed the levels specified in Table 9 as measured within the quiet area and not less than 400 feet (122 meters) from the noise source. [Table not included. See ED. NOTE.]

(d) Impulse Sound. Notwithstanding the noise rules in Tables 7 through 9, no person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if an impulsive sound is emitted in air by that source which exceeds the sound pressure levels specified below, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule: [Table not included. See ED. NOTE.]

(A) Blasting. 98 dBC, slow response, between the hours of 7 a.m. and 10 p.m. and 93 dBC, slow response, between the hours of 10 p.m. and 7 a.m.

(B) All Other Impulse Sounds. 100 dB, peak response, between the hours of 7 a.m. and 10 p.m. and 80 dB, peak response, between the hours of 10 p.m. and 7 a.m.

(e) Octave Bands and Audible Discrete Tones. When the Director has reasonable cause to believe that the requirements of subsection (1)(a), (b), or (c) of this rule do not adequately protect the health, safety, or welfare of the public as provided for in ORS Chapter 467, the Department may require the noise source to meet the following rules:

(A) Octave Bands. No person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if such operation generates a median octave band sound pressure level which, as measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceeds applicable levels specified in Table 10. [Table not included. See ED. NOTE.]

(B) One-third Octave Band. No person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if such operation generates a median one-third octave band sound pressure level which, as measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, and in a one-third octave band at a preferred frequency, exceeds the arithmetic average of the median sound pressure levels of the two adjacent one-third octave bands by:

(i) 5 dB for such one-third octave band with a center frequency from 500 Hertz to 10,000 Hertz, inclusive. Provided: Such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band; or

(ii) 8 dB for such one-third octave band with a center frequency from 160 Hertz to 400 Hertz, inclusive. Provided: Such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band; or

(iii) 15 dB for such one-third octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive. Provided: Such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band;

(iv) This rule shall not apply to audible discrete tones having a one-third octave band sound pressure level 10 dB or more below the allowable sound pressure levels specified in Table 10 for the octave band which contains such one-third octave band.

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under

other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

(k) Sounds created by the operation of road vehicle auxiliary equipment complying with the noise rules for such equipment as specified in OAR 340-035-0030(1)(e);

(l) Sounds created by agricultural activities;

(m) Sounds created by activities related to the growing or harvesting of forest tree species on forest land as defined in subsection (1) of ORS 526.324.

(6) Exceptions: Upon written request from the owner or controller of an industrial or commercial noise source, the Department may authorize exceptions to section (1) of this rule, pursuant to rule 340-035-0010, for:

(a) Unusual and/or infrequent events;

(b) Industrial or commercial facilities previously established in areas of new development of noise sensitive property;

(c) Those industrial or commercial noise sources whose statistical noise levels at the appropriate measurement point are exceeded by any noise source external to the industrial or commercial noise source in question;

(d) Noise sensitive property owned or controlled by the person who controls or owns the noise source;

(e) Noise sensitive property located on land zoned exclusively for industrial or commercial use.

[NOTE: View a PDF of referenced documents and tables by clicking on "Tables" link below.]

[\[ED. NOTE: To view attachments referenced in rule text, click here to view rule.\]](#)

Statutory/Other Authority: ORS 467

Statutes/Other Implemented: ORS 467.030

History:

DEQ 23-2018, minor correction filed 04/02/2018, effective 04/02/2018

DEQ 24-2017, minor correction filed 11/08/2017, effective 11/08/2017

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DEQ 5-2004, f. & cert. ef. 6-11-04

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DEQ 8-1980, f. & ef. 3-11-80

DEQ 135, f. & ef. 6-7-77

DEQ 77, f. 9-5-74, ef. 9-25-74

Accessibility Information

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