

# Landfill Gas Emissions 2021 Rulemaking

## Summary

### Advisory Committee Meeting #3

Session 3: Friday, April 16, 2021, 11:30 a.m. – 2:30 p.m.  
Web-based meeting

#### List of RAC member attendees

Commissioner Kramer	Association of Oregon Counties/Wasco County
Michael Guebert	Metro
Patrick S. Sullivan	SCS Engineers
Amelia Schlusser	Green Energy Institute
Jennifer Stuber	Oregon Refuse & Recycling Association
Jesse Berger	Lane County
Damon Motz-Storey	Oregon Physicians for Social Responsibility
Tori Heroux	Neighbors for Clean Air

#### List of DEQ team attendees

Heather Kuoppamaki	DEQ team
Michael Orman	DEQ team
Daniel Defehr	DEQ team
Karen Williams	DEQ team
Matt Steele	DEQ team
Elizabeth Elbel	DEQ team
Lauren Slawsky	DEQ team
Nicole Singh	DEQ team

#### List of handouts and presentation notes

- Updated Draft Rules
- Discussion Responses
- Draft Fiscal Impact Statement

Time	Topic
11:30 a.m.	Meeting Commencement
11:45 a.m.	Review and Changes to Draft Rules
1 p.m.	Review Fiscal Impact Statement
2 p.m.	Public Input
2:25 p.m.	Review Next Steps
2:30 p.m.	Adjourn Meeting



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*DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.*

## Meeting Summary

Jamie Damon, lead facilitator welcomed the RAC members and reviewed the agenda: 1) Meeting Commencement, 2) Review and Discuss Changes to Draft Rules, 3) Break, 4) Review Fiscal Impact Statement, 5) Public Input, and 6) Review Next Steps.

Heather Kuoppamaki shared that this third meeting is intended to be the final RAC meeting. She shared that DEQ will gather input on the Fiscal Impact Statement during today's meeting and decide whether or not to make additional edits to the rule. The draft rule will then be open for a one-month public comment period. The following public comment period and revised rule will be brought to the Environmental Quality Committee (EQC).

DEQ team attendees included the following:

- Heather Kuoppamaki, the lead rule writer for the rulemaking and a Senior Environmental Engineer at the Oregon DEQ
- Karen Williams, an Air Quality Planner working in the Air Quality Planning Section
- Michael Orman, the Air Quality Planning Section Manager
- Matt Steele, who works with the Greenhouse Gas Reporting section
- Lauren Slawsky, a climate policy analyst with the DEQ Climate Protection Program
- Daniel Defehr, who is with the Air Operations Section

Commissioner Kramer expressed concern about DEQ making the final decision on the rule making. He noted that he has seen minimal public involvement during the process thus far.

Michael Orman shared that DEQ developed proposals for the environmental rulemaking. He shared that the proposal developed during this process will be open to public input during a 30-day public comment period. Michael stated that the final decision on the rule will be made by the Environmental Quality Committee. Karen Williams requested RAC members engage and look at how RAC member input has been incorporated in the rulemaking process.

## Review and Discuss Changes to Draft Rules

Heather reviewed the changes to the draft rules.

### Landfill Age

The applicability date is changed from Jan. 1, 1977 to Nov. 8, 1987. It is not anticipated that this will increase methane emissions.

### Size Threshold

The size threshold has been lowered to 200,000 tons (from 408,000 tons). Smaller landfills will have increased requirements, and the effectiveness of the reduction will be assessed as additional data is reported.

### Data Collection Elements

The new rule would require the following data collection at landfill sites:

- Waste characterization in addition to waste amount received
- Landfills over 200,000 tons waste-in-place: annual visual cover inspections
- Methane Generation Rate Reports: include efforts to reduce landfill gas emissions
- Report all instantaneous surface readings of 100 ppmv or greater

These changes present a potential for methane emission reduction due to additional cover inspections and subsequent repairs.

### **Open Flares**

Under certain conditions, landfills will be allowed to operate open flares after Jan. 1, 2024.

### **Temporary Shutdown**

Clarification was added as to when a landfill must report a shutdown.

### **Penetration Monitoring**

Federal requirements call for quarterly penetration monitoring. Some sites not under the federal thresholds will be allowed to shift to annual monitoring if there are no detections for four consecutive quarters.

### **Phase Shutdown**

After the control system is shut down, the landfill will conduct surface monitoring for two years. The spacing for surface monitoring has been increased and offset over the year.

### **Environmental Justice & Equity**

There were no changes to this part of the rule, however, it will be revisited at the five-year rule review when applicable data is accessible.

### **Discussion**

Heather invited the RAC members to provide comments on the proposed rule changes. The RAC members provided the following comments.

- The current analysis does not justify the size threshold. The numbers selected are drawn from a worst-case scenario.
- Closer monitoring of landfills could result in a reduction of greenhouse gas (GHG) emissions at landfill sites.
- Question as to whether DEQ will consider growth as a percent.
- We need as much information as possible to document sources of methane emissions from landfills to create the most accurate picture. We need to think creatively about ways to reduce emissions at landfills.
- Support for changing applicability threshold to waste in place amount, with precautionary principal.
- The waste characterization requirements are more rigorous in California for their CIWMB.
- The proposed rules are more stringent than the California rules. We would like to make sure this effort shows reductions in GHG emissions. Can we evaluate what has and has not worked in California?
- A lot of data is already available from landfills, make sure that data is considered in these rules.
- Small sites that put in gas systems are collecting smaller amounts of gas than models suggested.
- Is there concern regarding thresholds for controls or adding additional reporting?

### **Review Fiscal Impact Statement**

Heather reviewed the Fiscal Impact Statement and informed the attendees that DEQ is required to provide notice of any fiscal impact of the proposed rules. She shared that the agency will consider mitigation for small businesses based on impacts.

Heather described the elements of the Fiscal Impact Statement, sharing that the document begins with an analysis of any significant fiscal impacts borne by state and federal agencies, local government, the public, large businesses, or small businesses. She shared that DEQ then looks at possible mitigation measures for impacts on small businesses and housing costs.

Heather shared that the RAC will now be acting as the Fiscal Advisory Committee (FAC). The committee will review the Fiscal Impact Statement and provide observations and recommendations on the draft rule's fiscal impact, the extent of the draft rule's impact, and any significant adverse fiscal impacts on small businesses, while identifying any potential mitigation strategies. Heather informed the attendees that DEQ will then document and consider the committee's input and may revise the Fiscal Impact Statement accordingly.

Heather shared the following four Fiscal Impact Questions:

- Will the rules have a fiscal impact?
- What will be the extent of that impact?
- Will the rule have a significant adverse impact on small businesses?
- If so, how can that adverse impact be mitigated?

Heather informed the attendees that the next piece of the presentation will focus on fiscal impacts from the proposed rules. She provided a summary of fiscal impacts sharing that impacts come from permit requirements and compliance activities. She informed the attendees that there will be initial costs for compliance as well as ongoing costs and future (one time or occasional) costs.

Heather shared that for initial and ongoing costs, requirements are largely based on the landfill's characteristics. The higher the methane production, the more requirements. She shared a chart identifying the requirements, noting that requirements are cumulative.

Heather shared a chart showing the air quality permit types and fees and explained the different permit types and associated initial and annual fees for different sized landfills. She shared that the proposed rules do not include any new permit fees, but tie into existing permitting fees. Heather shared a chart depicting the estimated compliance costs.

Heather shared a chart depicting the future activity fees under Cleaner Air Oregon (CAO) and provided a summary of the number of landfills that will need new Standard, Simple, and Basic ACDPs under the new proposed rules. She highlighted some of the most common DEQ fees including Notices of Intent to Construct, Permit Modifications, and Modeling Review along with their respective associated fee range.

Heather shared that at the State, only DEQ will be impacted, the federal government will not have any large impacts. She informed the attendees that local governments that own or operate landfills will have impacts due to the permit fees and compliance costs. Additionally, Lane Regional Air Protections Agency will see impacts due to additional sites that may require permitting and permit oversight.

Heather shared that there is no direct negative impact to the public as a result of the proposed rules. However, local governments and businesses may pass increased costs on to the public. She shared that the positive impacts of the proposed rule include reducing GHG emissions and the reduced impacts of climate change as well as public health improvements. Heather shared that large businesses will potentially be required to submit waste-in-place reports, methane generation

rate calculations and reports, surface emission monitoring and reports, and to upgrade or install landfill gas collection and control systems.

Heather shared that for impacts to small businesses, for this analysis DEQ defined “small business” as a business that owns or operates a landfill with less than 200,000 tons of waste-in-place, and that potential fiscal impacts include the cost of new Basic ACDPs and waste-in-place reports.

## **Discussion**

The RAC members provided the following comments.

- The costs to construct and operate a landfill gas system and conduct monitoring is much higher than shown here. Generally, DEQ would need to split out and have a site-specific cost system to give a full summary of costs incurred. It would be helpful to have some real examples to get more accurate numbers.
- Installing a new system requires design work, purchasing of a flare, and construction.
- California assumed the work would be done in-house, which is not realistic. The cost needs to reflect hiring out these services. Purchasing a new enclosed flare is costly. Annual operations and maintenance costs (O&M) are also missing here from the analysis. The inflation from older reports is incorrect.
- There are different costs depending on emissions inventory.
- Will the rule be compliant under Title V? That is the case in California.
- The public health impacts are noteworthy. Different pollutants can cause respiratory issues and neurological issues. This will reduce healthcare costs.
- Are businesses going to be considered large or small by the number of employees?

Heather shared that DEQ will take the input received from the FAC members and consider scheduling another meeting to make the Fiscal Impact Statement as accurate and thorough as possible. She shared that DEQ can reach out to CAO for costs.

## **Comment on the Fiscal Impact Analysis**

DEQ posed the following questions to the group. Jamie requested that everyone compartmentalize answers as best as possible to fit within each question.

### **Will the rules have a fiscal impact?**

*The RAC members provided the following comments.*

- What constitutes a “fiscal impact” - how much?
- Fees are increasing; sites will most likely need to raise fees.
- In California, sites needed to review their rate models to cover the costs for compliance. The impact was passed on to the rate payers.
- The rule seems to have an impact on regulated entities. There is an impact on the public too. When considering the scope of the emissions from the facilities on the public, the costs seem low compared to the public health and climate impacts.
- There is a wide range of fiscal impacts due to climate change and the secondary effects born by the public. Reduced air pollution does have a positive impact on costs associated with public health.
- EPA has data on public health costs.

### **What will be the extent of that impact?**

*The RAC members provided the following comments.*

- Impacts need to be broken out by the different types of landfills. There are varying impacts based on if the site is a newly regulated entity.
- We need more information here. Please consider an additional meeting to address this.
- What are proposed models that identify avoided health care costs connected with air pollution reduction?
- Look at the size of facilities, whether they are closed or open, initial capital costs, and O&M costs, including additional record keeping requirements. These additional costs are rolled up into the increased permit fees and effect the cost effectiveness of the program.
- Factor in the social cost of carbon emissions.
- How can we separate out the different causes of air pollution to know how these rules are decreasing methane reduction?
- How can we factor in secondary pollutants from different management of the sites?

### **Will the rules have a significant adverse impact on small businesses?**

*The RAC members provided the following comments.*

- Until we have the final numbers it is hard to know, it is difficult to weigh in on this question without more complete numbers.
- It is important to separate out the size of the sites.
- Include the municipalities and their unique challenges.
- Smaller landfills are more likely to not have existing requirements meaning their costs would increase dramatically.
- Is there a way to generate revenue to cover the increased costs? This is particularly difficult for closed landfills with no revenue source.
- Additional information will help us answer this question with more confidence.
- We need input from AOC/LOC about impacts to municipalities.
- Based on the information currently shared by DEQ, the fees do not seem like they would be characterized as “significant”.
- Note that the costs in the table are a per acre cost. For smaller sites to comply, the baseline cost is estimated to be \$1 million. The cost for medium sized sites could be much higher.
- We need to be clear about how we are defining “small business”.
- Look to California for how they define “small” in relation to municipalities.

### **If so, how can that adverse impact be mitigated?**

*The RAC members provided the following comments.*

- Can grant funds be made available to help small businesses/communities to offset compliance costs?
- Need incentives for renewable energy. This is an energy source that could be utilized.
- Landfills that install gas collection systems can sell back energy produced by collected gas to the grid.
- Note that economies of scale of gas collection system investments may not work for the small sites.
- There is a potential for raising rates for specific groups of customers that are producing larger quantities of waste (to incentivize reducing waste).
- It is important to consider that the central reason we are here is to reduce emissions; be mindful of perverse incentives.

## **Public Input**

The public did not submit any questions or comments.

## **Review Next Steps**

Heather reviewed the next steps (notice of rulemaking, a one-month public comment period, EQC in July 2021, and Outreach/Implementation). She shared that DEQ will discuss the need for another meeting internally.

Participants shared a request for DEQ to re-evaluate costs, including operation and maintenance costs, as part of the next steps in the process.

Karen Williams provided a summary of the level of detail the Fiscal Impact Analysis will go into. She shared that DEQ is intending to promulgate a new regulation and that the department's obligation is to notify every entity that DEQ is aware of that the proposed rule will impact fiscally. She shared that the Fiscal Advisory Committee is intended to add information for DEQ to consider. Karen shared that DEQ is not obligated to do a detailed economic analysis. She informed the attendees that the next steps will be to consider the input received during the meeting as well as any additional information that is shared with the DEQ project team within the next four weeks. She shared that the Fiscal Impact Statement will be publicly noticed and opened for public comment.

Jamie thanked the RAC members and attendees for participating. She asked the attendees to please submit any further data to Heather for consideration and shared that the DEQ project team will be in touch with any next steps. The meeting was adjourned at 2:30 pm.

## **Alternative formats**

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](mailto:deqinfo@deq.state.or.us).