



**Proposed Rule 1110.3 – Emissions from  
Linear Generators  
&  
Proposed Amended Rule 1110.2 – Emissions  
from Gaseous- and Liquid-Fueled Engines**

**Working Group Meeting #3  
February 23, 2023**

Join Zoom Webinar Meeting:

<https://scaqmd.zoom.us/j/94563453689>

Webinar ID: 945 6345 3689

Teleconference Dial-In: 1-669-900-6833

# Agenda



# Summary of Public Workshop



Public Workshop held on January 25, 2023



Provided overview of linear generator technology



Presented PR 1110.3 & Proposed Amended Rule 1110.2 (PAR 1110.2) rule language and impact assessments



Received comments from stakeholders

# Overview of Written Public Comments

During the public comment period, staff received written comments from:

- Mainspring Energy, Incorporated
- Clean Water SoCal/Southern California Alliance of Publicly Owned Treatment Works

Key comments from Clean Water SoCal included:

- Concern about biogas fueled units reliably meeting emission limits over equipment life
- Proposed higher emission limits for biogas fueled units

Key comments from Mainspring Energy, Inc. included:

- Proposal for reduced source test frequency
- Requested certification pathways and exemptions for certified units
- Updated breakdown provisions

# Responses to Comments

Formal responses to comments will be contained in the Draft Staff Report

Staff updated PR 1110.3 in response to stakeholder comments

Updated Portable Analyzer Protocol reference in PAR 1110.2 since the preliminary draft rule language was released

Staff will provide an overview of the changes made to PR 1110.3 in the following slides

# Updates to PR 1110.3







## Applicability (b)

All linear generators fueled solely on natural gas are subject to this rule

- Staff updated the applicability of PR 1110.3 to only include natural gas fueled units because:
  - Source test data for fuels besides natural gas not available
  - Stakeholders expressed concern about reliably meeting emission limits over equipment life
- Alternative emission limits for other fuels were not included because staff cannot determine the appropriate emission limits without source test data

## Definitions (c)

The following definitions are no longer applicable and have been removed:

- DIGESTER GAS, DAILY, LANDFILL GAS, and MUNICIPAL SOLID WASTE or MSW

Modified definition of tuning to refer to terms in PR 1110.3:

- Tuning does not include automatic adjustments made by a unit's control system or normal operations to meet load fluctuation



# Emission Limits (d)

**Table 1: Concentration Limits for Linear Generators**

**Units with a Permit to Operate Issued on and after  
[Date of Adoption]**

Fuel Type	NO <sub>x</sub> (ppmvd) <sup>1</sup>	CO (ppmvd) <sup>1</sup>	VOC (ppmvd) <sup>2</sup>
Natural Gas	2.5	12	10

<sup>1</sup> Parts per million by volume, corrected to 15% oxygen on a dry basis.

<sup>2</sup> Parts per million by volume, measured as carbon, corrected to 15% oxygen on a dry basis and averaged over the sampling time required by the test method.

- Upon rule adoption, all newly permitted units will be subject to concentration limits in Table 1
- Emission limits based on source test data demonstrating achievability
- Other fuel types not included because test data is not available
  - Linear generators operating on other fuel types will be evaluated in permitting process

## Source Testing (f)

Source testing is the only enforceable means of ensuring compliance with all PR 1110.3 emission limits

- VOC testing cannot be done with a portable analyzer
- U.S. EPA has not approved portable analyzer testing as an acceptable test method

In response to stakeholder comments, source testing schedule reduced to at least once every 26,280 operating hours, or every 4 years, whichever occurs first

Generic source test protocol has been approved

Initial source tests are required and source test loads will be specified in source test protocol, rather than in PR 1110.3

Pooled testing for 4 or more identical units at a facility

- Testing on one-third of Units with subsequent testing on different one-third Units
- Emission exceedances are a violation and require repair, re-test, and testing an additional Unit

# Monitoring (g)(1)

Maintain the following systems and equipment used for emissions monitoring and PR 1110.3 compliance:

- Calibrated electric meter
- Considering “utility grade” as substitute, pending sufficient definition

Diagnostic checks by a portable analyzer:

- At least every 8,760 operating hours, or 2 years, whichever occurs first
- Following a District approved protocol
- Conducted by a person certified by District approved training

## Recordkeeping (g)(2)

PR 1110.3 mirrors Rule 1110.2 records retention requirement of 5 years

- Records shall be made available within 48 hours

Maintenance and Operating Hour Records

- Provides compliance verification mechanism for subdivisions (e), (f), and (g)

CARB Distributed Generation (DG) Certified Units

- Maintain records demonstrating certification

## Reporting (g)(3)

Operators will follow  
Breakdown procedures in  
Rule 430 – Breakdown  
Provisions

Notify Executive Officer of  
changes to CARB DG  
certification within 14 days

# Exemptions (h)

## **Provisions of subdivision (f) and subparagraph (g)(1)(B) do not apply to:**

- Emergency standby units, units used for fire-fighting and flood control, and any other emergency unit approved by the Executive Officer
  - Must have permit conditions that limit operation to 200 hours or less per year
- Removed exemption for Research Operations

## **Provisions of this rule shall not apply to Units with a CARB Executive Order issued under the DG certification regulation**

- Units must maintain certification and be recertified upon expiration
- Permit to Operate conditions still applicable

# Next Steps



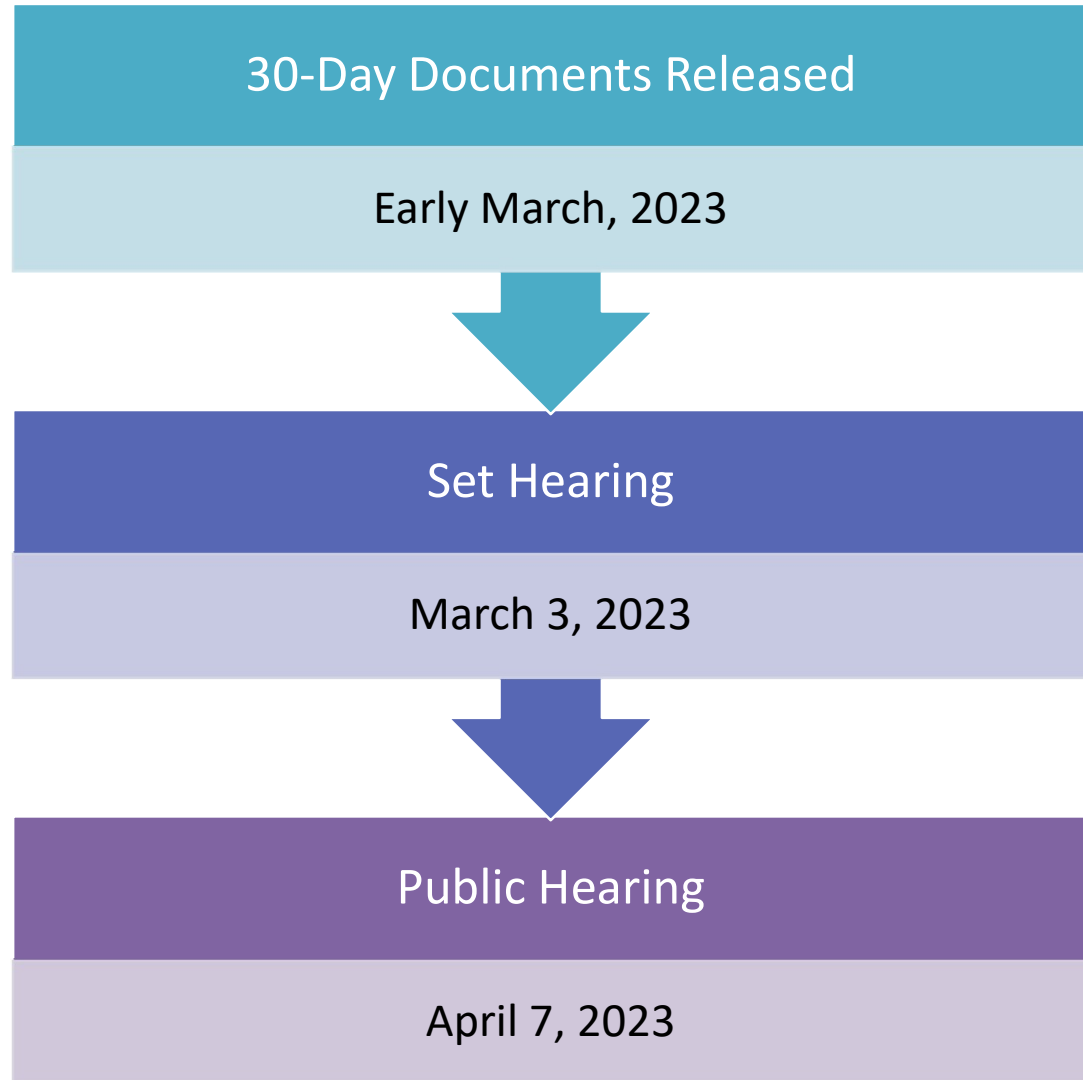
Continue discussions with stakeholders

Finalize Draft Rule Language and Draft Staff Report

Set Hearing



# Rule Schedule



# Contacts

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