

PROPOSED RULE 1147.1 WORKING GROUP MEETING #6

APRIL 29, 2021
SOUTH COAST AQMD
DIAMOND BAR, CA

Zoom Meeting: <https://scaqmd.zoom.us/j/93977169209>
Meeting ID: 939 7716 9209
Conference Call: (669) 900-6833

Agenda

- Recap of Previous Working Group
- Response to Comments
- Proposed Rule Language
 - Key Terms and Definitions
 - BARCT Limit
 - Implementation Schedule
 - Monitoring Requirements
- Next Steps

Recap of Working Group Meeting #5

- ❑ Discussed revisions to staff's initial proposals:
 - Initial BARCT limit from 25 ppm NO_x to 30 ppm NO_x; CO limit of 400 ppm
 - CEMS threshold usage determination on 24 month rolling average from fixed annual
- ❑ Reviewed implementation logistics and impacts
- ❑ Staff provided retrofit schedule overview for units impacted by PR 1147.1
- ❑ Provided overview of Proposed Rule 1147.1 language

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ADDITIONAL STAKEHOLDER COMMENTS

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Meeting with CalCIMA

- ❑ On March 24, 2021, staff met with representatives of CalCIMA

- ❑ Comments focus on:

Implementation schedule for operators of multiple facilities

Implementation schedule for new replacements instead of retrofits

CO limit in relation to proposed BARCT limit of 25 ppm NO_x

Application of CEMS for aggregate drying equipment

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Implementation Schedule for Multiple Facilities

- ❑ Comment:

- Operators with multiple facilities expressed concerns for units that will be on the same or similar compliance schedule
- Operators commented that requiring operators to meet the proposed NO_x concentration limit 12 months after the permit to construct is issued is not sufficient

- ❑ Staff Response:

- Based on discussion with equipment vendors, staff is proposing to extend the time for facilities to meet the proposed NO_x concentration limit from 12 to 18 months after the permit to construct is issued
 - Allows all operators, particularly those with multiple facilities additional flexibility to meet NO_x concentration limits and to minimize operational disruptions

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Implementation Schedule for New Replacements

❑ Comment:

- Operators commented that equipment replacements will have difficulty meeting the proposed NOx concentration limit within 12 months after the permit to construct is issued

❑ Staff Response:

- Staff met with the stakeholder and equipment vendors to better understand the process involved with equipment replacements
- Units to be replaced would be given 36 months to permanently shut down
- Additional time provides operators to manage the installation of new unit and to decommission replaced unit

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CO Limits for BARCT Recommendations

❑ Comment:

- Operators commented that the proposed NOx limit of 30 ppm would create challenges for some facilities to comply with 400 ppm CO depending on quality of aggregate being processed
- Stakeholders have also mentioned that aggregate quality is difficult to control and varies throughout the Basin

❑ Staff Response:

- Staff is proposing to increase the CO limit from 400 ppm to 800 ppm while maintaining the proposed NOx limit of 30 ppm
- Increasing the CO limit will better address the variation in aggregate, and better ensure operators can meet the proposed 30 ppm NOx limit

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Comment on CEMS Provision

- Comment:
 - Operators commented that stack conditions of aggregate drying creates additional challenges for continuous emissions monitoring systems (CEMS)
 - Operators also expressed concerns regarding limited vendors for alternative CEMS (ACEMS)
- Staff Response:
 - Staff met with CEMS and ACEMS vendors to discuss long-term feasibility of conventional CEMS as well as ability for vendor to support new facilities opting in for ACEMS
 - CEMS vendor not aware any applications of conventional CEMS for this industry
 - CEMS vendor commented that moisture and particulate that can result in increased maintenance, long-term reliability, and other challenges to properly operate a CEMS for this industry
 - Based on vendor input, staff is not recommending that PR 1147.1 facilities install new CEMS or ACEMS
 - Staff is proposing to remove the CEMS provision from PR 1147.1
 - Facilities with existing ACEMS will retain systems for the life of the unit and comply with Rule 218 series

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PROPOSED RULE 1147.1- NO_x REDUCTIONS FROM AGGREGATE FACILITIES

DRAFT RULE LANGUAGE

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Proposed Rule 1147.1

Purpose (a) and Applicability (b)

Purpose

“The purpose of this rule is to reduce emissions of nitrogen oxide (NOx) from gaseous fuel-fired aggregate drying equipment.”

Applicability

“This rule applies an owner and operator that operates gaseous fuel-fired aggregate drying equipment greater than 2,000,000 BTU per hour with NOx emissions of greater than one pound per day.”

- ❑ Proposed Rule 1147.1 will apply to aggregate drying equipment with heat input rated greater than 2,000,000 Btu/hr
- ❑ Units will be subject to Rule 1147 if:
 - Rated heat input is at or below 2,000,000 Btu/hr
 - Daily NOx emissions is at or below one pound per day

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Proposed Rule 1147.1

Definitions (c)

Key Definitions

AGGREGATE MATERIAL

“means any coarse to medium grained particulate material used in construction, including recycled concrete and quarried materials such as sand, gravel, and crushed stone. “

AGGREGATE DRYING EQUIPMENT

“means any unit used to reduce or minimize the moisture content of aggregate material by using combustion equipment fired with gaseous fuel, including rotary dryers and fluidized bed dryers.”

- ❑ Seeking feedback from stakeholders on definitions of AGGREGATE MATERIAL and AGGREGATE DRYING EQUIPMENT

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Proposed Rule 1147.1 Emission Requirements (d) - Emission Limits

Category	Prior to Meeting Proposed NOx and CO Limits	Proposed NOx and CO Emission Limits	
	Emission Limit (@ 3% O ₂ , dry)	Emission Limit (@ 3% O ₂ , dry)	
	NOx	NOx	CO
Non-RECLAIM Facilities	40 ppm	30 ppm	800 ppm
Former RECLAIM Facilities	102 ppm		

- ❑ Added limits until units are required to meet proposed NOx and CO emission limits
- ❑ Non-RECLAIM units
 - 40 ppm based on existing Rule 1147 requirements
- ❑ RECLAIM units
 - 102 ppm NOx based on RECLAIM default of 130 lb/mmscf
 - Effective after the facility exits RECLAIM – when the facility is a “former RECLAIM facility”

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Proposed Rule 1147.1 Emission Requirements (d) - Compliance Schedule

- ❑ Trigger for compliance determined annually on January 1 for units that turn 12 or 32 years old during the 12 months prior
- ❑ Annual cut off of January 1st will ensure every facility is provided with a minimum of 6 months to submit permit application
- ❑ Burner age to be determined by date of installation

Equipment Category	Submit Permit Application	Compliance Date
Units with Existing Permit Limit ≤40 ppm	By July 1 after the year burner is 32 years old	Within 18 months after Permit to Construct is issued
All other units with burners installed prior to 2009	By July 1, 2022	
All other units with burners installed on or after 2009	By July 1 after the year burner is 12 years old	

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Proposed Rule 1147.1 Emission Requirements (d) - Shut Down Provision

Shut Down
Provision
Part 1 of 2

An owner or operator that elects to permanently shut down a unit on or before 36 months after the date a permit application is due pursuant to [Applicable Compliance Schedule] shall:

- A. *On or before the permit application for the unit is required to be submitted pursuant to [Applicable Compliance Schedule], notify the Executive Officer in writing that the unit will be shut down prior to 36 months after the date a permit application due pursuant to [Applicable Compliance Schedule]; and*
- B. *On or before 36 months after the date a permit application is due pursuant to [Applicable Compliance Schedule], shall:*
 - i. *Surrender the South Coast AQMD permit to operate for the unit; and*
 - ii. *Disconnect and blind the fuel line for the unit.*

- Provisions provide owners or operators of a unit subject to PR 1147.1 option to shut down the unit in lieu of complying with BARCT

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Proposed Rule 1147.1 Emission Requirements (d) - Shut Down Provision cont'd

Shut Down
Provision
Part 2 of 2

If the owner or operator that submitted a notification pursuant to [Part 1] will not be shutdown, the owner or operator shall:

- A. *Notify the Executive Officer no later than 24 months after the date a permit application is due pursuant to [Applicable Compliance Schedule], that the unit identified in [Part 1] will not be shut down; and*
- B. *No later than 36 months after the date a permit application is due pursuant to [Applicable Compliance Schedule], meet the NO_x and CO emission limits specified in [BARCT].*

- Owners or operators of a unit notified to shut down that decide to maintain the unit must comply with BARCT no later than 36 months after permit application was originally required

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Proposed Rule 1147.1 Monitoring (e) – Periodic Source Test Provisions

Equipment Size	Source Testing Schedule
≥40 MMBtu/hr (Excluding CEMS or Equivalent)	Every 12 Months
<40 and ≥10 MMBtu/hr	Every 36 Months
<10 MMBtu/hr	Every 60 Months

- ❑ All facilities affected by PR 1147.1 will be subject to periodic source testing schedule upon complying with the proposed NOx and CO emission limits
- ❑ Source test must follow approved protocol approved by South Coast AQMD
 - Protocol must be submitted no later than 90 days prior to the date of scheduled source test
 - Source test must be conducted within 90 days after protocol approval
- ❑ Owner or operator with an approved protocol may request a one time extension of up to 3 months to demonstrate initial compliance with BARCT
- ❑ Not required to resubmit protocol for subsequent source tests assuming burner was not modified

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Proposed Rule 1147.1 Recordkeeping and Reporting (e) – CEMS

Provision for CEMS	Existing CEMS	<i>The owner or operator of existing the continuous in-stack emissions monitor or equivalent verification system prior to [Date of Adoption] shall retain the system and comply with the requirements specified in Rules 218.2 and 218.3.</i>
	CEMS Averaging Times	<i>The owner or operator of any [Existing CEMS] shall use a rolling averaging time of 60 minutes corrected to 3% oxygen, dry, to demonstrate compliance with the NOx concentration limits specified in [PR 1147.1].</i>

- ❑ PR 1147.1 will not include provision to require new CEMS installations
- ❑ Existing units with CEMS or equivalent prior to rule adoption will be required to retain the monitoring system for the life of the equipment
 - Facilities subject to CEMS or equivalent will be required to conduct periodic relative accuracy test audits (RATA) as required by Rule 218.2 and 218.3

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Next Steps

Release Preliminary Draft Rule Language before Public Workshop

Public Workshop in Tentatively May 2021

Set Hearing on June 4, 2021

Stationary Source Committee Meeting on June 18, 2021

Public Hearing on August 4, 2021

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CONTACTS

General RECLAIM Questions	Proposed Amended Rules 1147 and 1100	Proposed Rule 1147.1	Proposed Amended Rules 1147, 1100 and Proposed Rule 1147.2
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