

Proposed Amended Rule 1153.1

Public Workshop

March 30, 2023
1:00 PM



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Agenda

Rule 1153.1 Background

Rule Language Overview

Emission Reductions

Socioeconomic Impacts

California Environmental Quality Act
(CEQA)

Next Steps

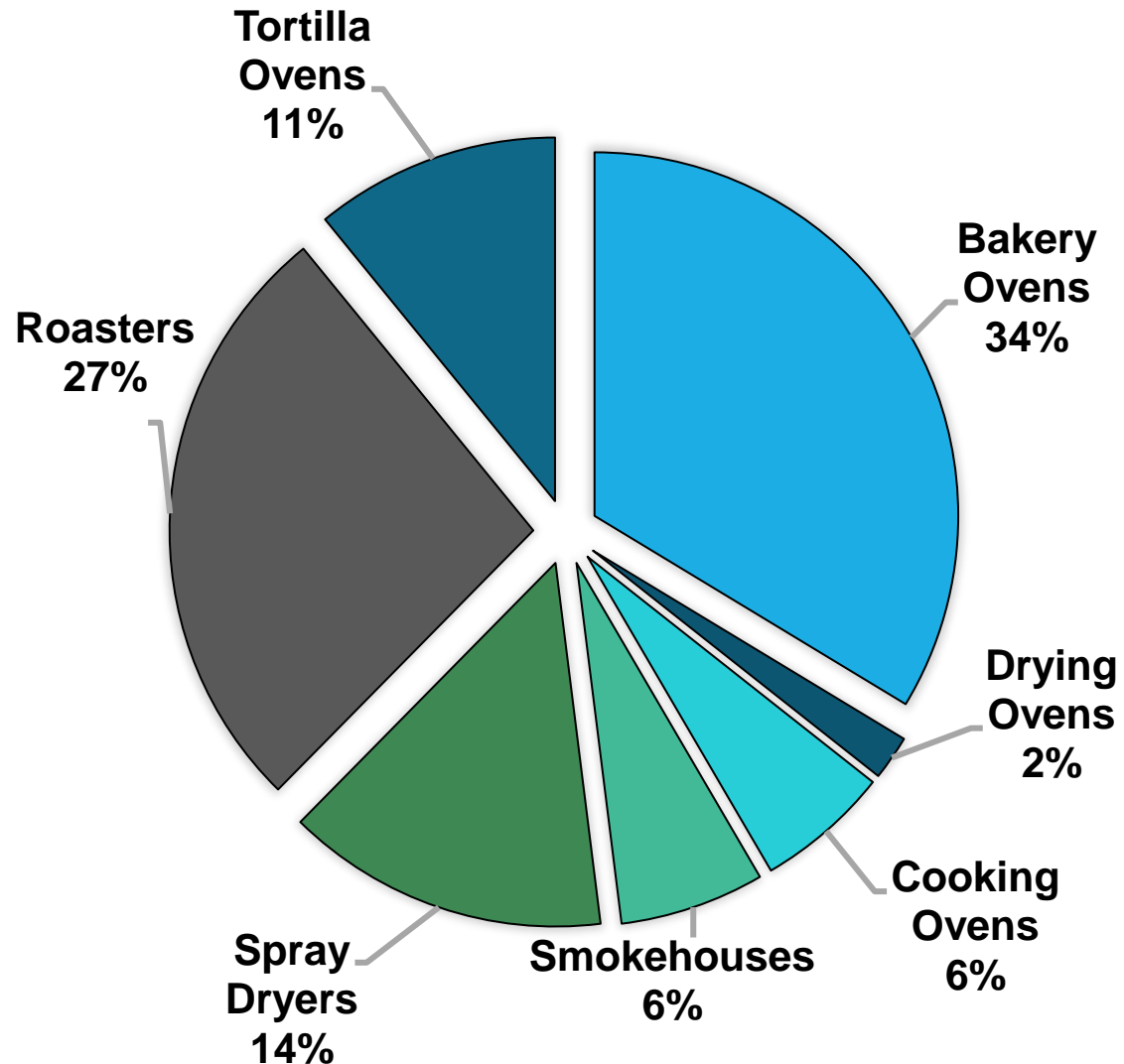
Background

Background

- 2016 Air Quality Management Plan
 - CMB-05 required a five ton per day NO_x emission reduction with Best Available Control Technology (BARCT) as soon as practicable
 - Transition the RECLAIM program to a command-and-control regulatory structure
 - Proposed Amended Rule 1153.1 (PAR 1153.1) is one of last remaining landing rules
- 2022 Air Quality Management Plan
 - Adopted on December 2, 2022
 - Requires the evaluation of zero-emission technologies across all sectors
 - Establishes new health-based cost-effectiveness threshold of \$325,000 per ton of NO_x reduced

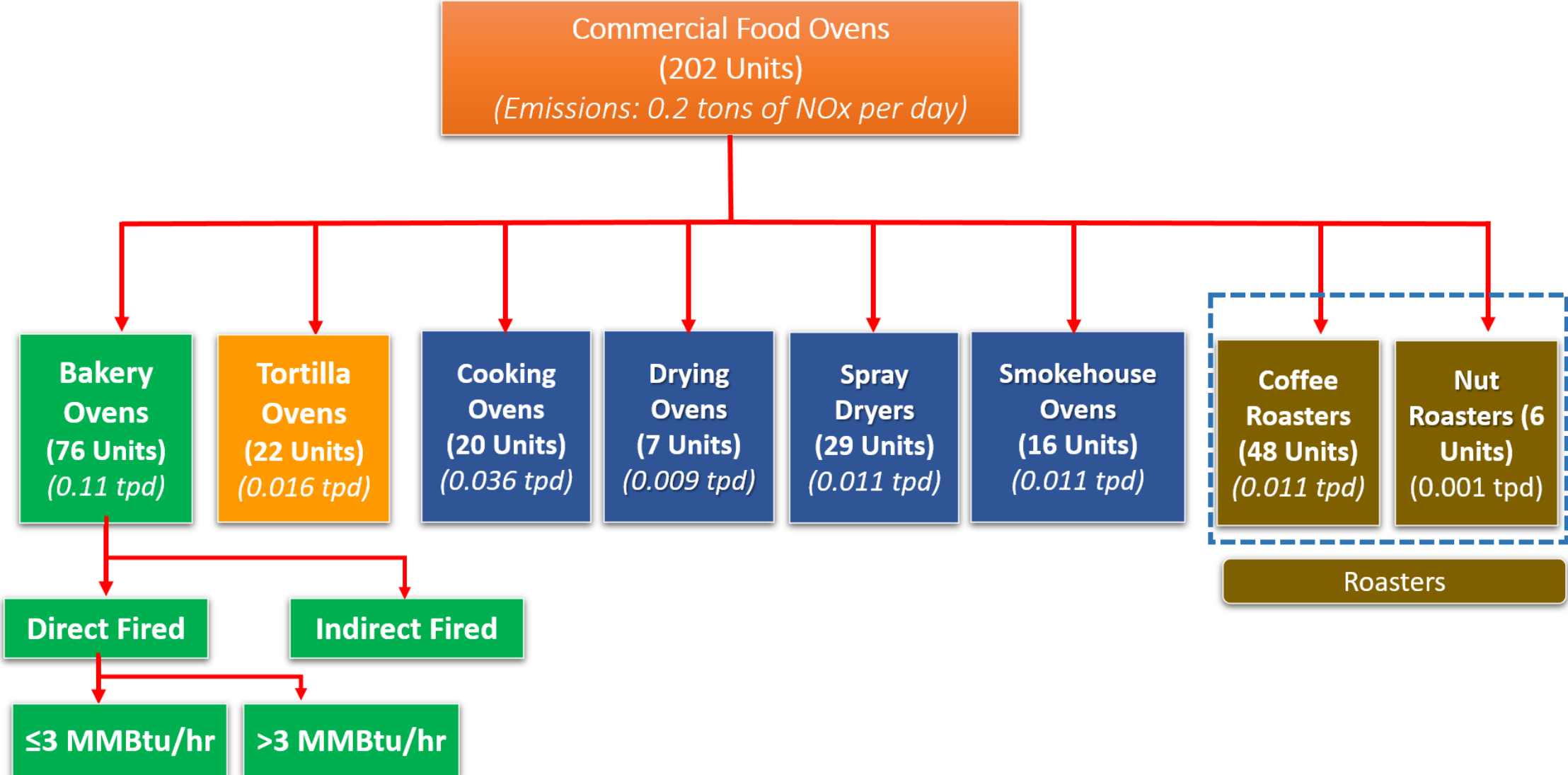


Rule 1153.1 Background



- Rule 1153.1 was adopted in November 2014
 - Applicable to commercial food ovens, roasters, and smokehouses
 - Established NOx and CO limits
- PAR 1153.1 will impact approximately 202 units located at 97 facilities
 - 45 units located at six RECLAIM facilities
 - 157 units located at non-RECLAIM facilities

Impacted Equipment



Rule Language Overview

Key Rule Updates Summary

- Updated rule structure and added new subdivisions
- Updated emission limits to reflect BARCT assessment
- Added provision for current and former RECLAIM facilities
- Removed outdated language and subdivisions
- Reorganized and updated provisions for clarity
- Added compliance options

Updated Rule Structure Overview

Current Rule 1153.1

- (a) Purpose and Applicability
- (b) Definitions
- (c) Requirements
- (d) Compliance Determination
- (e) Certification
- (f) Enforcement
- (g) Exemptions
- (h) Mitigation Fee Compliance Option



PAR 1153.1

- (a) Purpose
- (b) Applicability
- (c) Definitions
- (d) Requirements
- (e) Compliance Schedule
- (f) Equipment Age
- (g) Source Test Requirements for Units Subject to Phase I Emission Limits
- (h) Compliance by Certification for Units Subject to Phase I Emission Limits
- (i) Demonstration of one pound or less of NO_x per Day
- (j) Monitoring, Recordkeeping, and Reporting Requirements
- (k) Alternative Compliance Schedule Plan
- (l) Exemptions

Purpose (a) and Applicability (b)

- Separated Purpose and Applicability subdivisions
- Removed “gaseous and liquid fuel” to reflect inclusion of zero-emission requirement where heat source uses electricity
- Removed reference to equipment that require SCAQMD permits since zero-emission units will not be subject to permitting requirements under PAR 1153.1
- Removed reference to Rule 1147 – NOx Emission Reductions from Miscellaneous Sources including reference to paragraph (d)(7)

Language Updates

(a) ~~Purpose and Applicability~~

The purpose of this rule is to reduce ~~nitrogen oxide~~ Oxides of Nitrogen (NOx) and Carbon Monoxide (CO) emissions from ~~gaseous and liquid fuel-fired combustion equipment~~ Commercial Food Ovens as defined in this rule.

(b) Applicability

This rule applies to owners or operators of Commercial Food Ovens including, but not limited to, with in-use ovens Bakery Ovens, Tortilla Ovens, Dryers, Smokehouses, Food Ovens, and dry roasters Roasters ~~with nitrogen oxide (NOx) emissions from fuel combustion that require South Coast Air Quality Management District (SCAQMD) permits and are used to prepare food or products for making beverages for human consumption. As of November 7, 2014, the equipment subject to this rule is no longer subject to SCAQMD Rule 1147 except for the compliance determination option set forth in Rule 1147 (d)(7).~~

Definitions (c)

- Added definitions to address RECLAIM transition
- Added newly defined food oven categories
- Added several other definitions for clarity
 - Phase I, Phase II, and Phase III Emission Limits added to simplify and streamline rule requirements
- Removed definitions not used in the rule

New Definitions

- Alternative Compliance Schedule Plan
- Bakery Oven, Tortilla Oven, Dryer, Other Food Ovens, and Smokehouses
- Combustion-based Emission Limits
- Commercial Food Ovens (updated definition)
- Decommission
- Direct-fired Bakery Oven, Indirect-fired Bakery Oven
- Electric Heating Element
- Former RECLAIM Facility and RECLAIM Facility
- Hybrid Oven
- Part per million by volume
- Phase I, Phase II, and Phase III Emission Limits

Removed Definitions

- Annual Heat Input
- BTU (Included as British Thermal Unit (Btu) on first use)
- Combustion Modification
- In-Use Units
- Radiant Tube Heating

Removed outdated provisions

- Outdated compliance limits and schedule

Rearranged some current provisions into requirement subdivision

- One pound of NO_x per day provision

Subdivision (d): Requirements

Paragraph (d)(1): Table 1 Limits

Current Table 1 Limits

NOx Emission Limit	
PPM @ 3% O ₂ , dry or Pound/mmBTU heat input	
Process Temperature	
≤ 500° F	> 500° F
40 ppm or 0.042 lb/mmBTU	60 ppm or 0.073 lb/mmBTU

PAR 1153.1 Table 1 Limits

Equipment Categories		Phase I		Phase II		Phase III	
		NOx	CO	NOx	CO	NOx	CO
Direct Fired Bakery Ovens	≤3 MMBtu/hr	30	800	0	0	N/A	N/A
	>3 MMBtu/hr	30	800	30/0 ²	800	0	0
Indirect-Fired Bakery Ovens		30	800	0	0	N/A	N/A
Tortilla Ovens	Heated solely by IR Burners	15	800	N/A	N/A	0	0
	All Other Tortilla Ovens	30	800	N/A	N/A	0	0
Cooking Ovens		30	800	0	0	N/A	N/A
Drying Ovens		30	800	0	0	N/A	N/A
Smokehouses		30	800	0	0	N/A	N/A
Spray Dryers		30	800	N/A	N/A	N/A	N/A
Roasters		30	800	N/A	N/A	0	0

Proposed Changes to Table 1

Included a hybrid option for larger Direct-Fired Ovens

Added Phase III Limits, effective January 1, 2030 to allow more time for certain units to transition to zero

Created subcategories for Direct-Fired Bakery Ovens to allow more time for larger units to transition to zero emission

Separated Direct & Indirect-Fired Bakery Oven, most Indirect-Fired Ovens achieving zero

Included Phase III zero emission limits for categories where smaller zero-emission units have been identified

PAR 1153.1 Table 1 Limits

Equipment Categories		Phase I		Phase II		Phase III	
		NOx	CO	NOx	CO	NOx	CO
Direct Fired Bakery Ovens	≤3 MMBtu/hr	30	800	0	0	N/A	N/A
	>3 MMBtu/hr	30	800	30/0 ²	800	0	0
Indirect-Fired Bakery Ovens		30	800	0	0	N/A	N/A
Tortilla Ovens	Heated solely by IR Burners	15	800	N/A	N/A	0	0
	All Other Tortilla Ovens	30	800	N/A	N/A	0	0
Cooking Ovens		30	800	0	0	N/A	N/A
Drying Ovens		30	800	0	0	N/A	N/A
Smokehouses		30	800	0	0	N/A	N/A
Spray Dryers		30	800	N/A	N/A	N/A	N/A
Roasters		30	800	N/A	N/A	0	0

Paragraph (d)(1): Phase I, II, and III

- Requirements are separated based on whether units were installed prior to or after rule adoption
- Units installed before rule adoption subject to applicable compliance schedule in subdivision (e)
- Units installed after rule adoption subject to applicable limits based on date of installation:
 - Phase I: Date of adoption to January 1, 2027
 - Phase II: January 1, 2027 to January 1, 2030
 - Phase III: on or after January 1, 2030

- (1) ~~In accordance with the compliance schedule in Table 2, any person owning or operating an in-use unit~~ An owner or operator of a Unit subject to this rule shall not operate the ~~unit~~ Unit in a manner that exceeds: ~~carbon monoxide (CO) emissions of 800 ppm by volume, referenced to 3% oxygen (O₂), and the applicable nitrogen oxide emission limit.~~
- (A) For a Unit that was installed and in operation before [Date of Rule Adoption]:
- (i) Phase I Emission Limits specified in Table 1 according to the compliance schedule in paragraph (e)(1);
 - (ii) Phase II Emission Limits specified in Table 1, if applicable, on and after January 1, 2027, and before January 1, 2030, for Units that have a Phase III Emission Limit, according to the compliance schedule in paragraph (e)(2); and
 - (iii) Phase III Emission Limits specified in Table 1, if applicable, on and after January 1, 2030, according to the compliance schedule in paragraph (e)(3).
- (B) For a Unit that is installed on or after [Date of Rule Adoption]:
- (i) Phase I Emission Limits for a Unit that is installed before January 1, 2027; and
 - (ii) Phase II Emission Limits, if applicable, for a Unit that is installed on and after January 1, 2027, and before January 1, 2030, for Units that have a Phase III Emission Limit; and
 - (iii) Phase III Emission Limits, if applicable, for a Unit that is installed on and after January 1, 2030.

Paragraph (d)(2): Emission Rate Limits

Streamlined Emission Rate Limit Allowance

(2) Emission Rate Limits

An owner or operator of a Unit that elects to comply with a NO_x emission limit based on pound per million Btu (lb/MMBtu) in lieu of a ppmv limit shall not operate the Unit in a manner that exceeds the following limits, pursuant to the schedule in paragraph (e)(1):

(A) 0.036 lb/MMBtu in lieu of the 30 ppmv; or

(B) 0.018 lb/MMBtu in lieu of the 15 ppmv.

- Emission rate limits moved from Table 1 to paragraph (d)(2) to streamline table
- No change in emission rate requirement

Requirements (d)(3): Hybrid Ovens

New Provision for Hybrid Ovens

(3) Hybrid Oven Requirements

An owner or operator of a Hybrid Oven shall only operate the Combustion System to preheat the Hybrid Oven to normal operating temperature and shall operate the Hybrid Oven solely using the Electric Heating Element during routine operations to produce the food product.

- Based on stakeholder feedback, staff included a Phase II hybrid option for larger (>3 MMBtu/hr) direct-fired bakery ovens
 - Serve as a bridge to zero emissions
 - Helps mitigate the energy requirement for oven preheat
- PAR 1153.1 includes requirements for when the combustion portion of the hybrid oven can be operated
 - Only operated to preheat oven during cold starts

Paragraph (d)(4): Interim Limits

New Provision for Interim Limits

(4) Interim Concentration Limits

An owner or operator of a Unit at a Former RECLAIM Facility shall not operate the Unit in a manner that exceeds a 102 ppmv interim NOx concentration limit upon the date of becoming a Former RECLAIM Facility until that Unit is required to meet the emission limits in paragraph (d)(1).

- Interim limits are established for units located at former RECLAIM facilities
 - Prevents a unit from backsliding if a unit is not subject to a NOx emission limit prior to exiting RECLAIM
- Former RECLAIM units must comply with the interim NOx limit of 102 ppm

Requirements (d)(5): One Pound or Less of NOx per Day

Moved and Expanded Provision

(5) One pound or less of NOx per day Emission Limit

In lieu of complying with the Phase I Emission Limits, an owner or operator of a Unit may elect to comply with the following NOx emission limits and shall maintain records pursuant to subdivision (j):

(A) One pound or less of NOx per day averaged over a calendar month pursuant to paragraph (i)(1); or

(B) One pound per day of NOx pursuant to paragraph (i)(2).

- Current rule includes an exemption for units that emit one pound or less NOx per day
 - Moved from exemption subdivision to requirement subdivision
 - Considered an alternative NOx limit instead of low-emission exemption
 - Expanded to allow for monthly average
- Subdivision (i) added to establish the requirements for demonstrating compliance with one pound per day emission limit

Paragraph (d)(6): Decommissioning a Unit

Provision for Decommissioning Units

(6) Decommissioned Unit(s)

In lieu of complying with the Phase I, Phase II or Phase III Emission Limits, an owner or operator of a Unit may elect to Decommission a Unit pursuant to the schedule in paragraph (e)(6) for a Unit subject to Phase I Emission Limits, pursuant to the schedule in subparagraph (e)(2)(A) for a Unit subject to Phase II Emission Limits, or pursuant to the schedule in subparagraph (e)(3)(A) for a Unit subject to Phase III Emission Limits, by:

(A) Inactivating the applicable South Coast AQMD permit for the Unit to be decommissioned; and

(B) Disconnecting and blinding the fuel line(s) of the Unit to be decommissioned.

- Paragraph (d)(6) establishes decommissioning requirements for a unit in lieu of meeting Phase I, Phase II, and Phase III Emission Limits
- Compliance schedules in paragraph (e)(6), (e)(2)(A), and (e)(3)(A)

Requirements (d) (cont.)

- Paragraph (d)(7) is an existing provision that requires combustion system maintenance in accordance with manufacturers schedule and specification

Paragraph (d)(7)

- (67) ~~On or after November 7, 2014, any person owning or operating~~ An owner or operator of a unit ~~Unit subject to the Combustion-Based Emission Limits~~ subject to this rule shall perform ~~combustion system~~ Combustion System maintenance in accordance with the manufacturer's schedule and specifications as identified in the manual or other written materials supplied by the manufacturer or distributor. ~~The owner or operator shall maintain on site at the facility where the unit is being operated a copy of the manufacturer's, distributor's, installer's, or maintenance company's written maintenance schedule and instructions and retain a record of the maintenance activity for a period of not less than three years. The owner or operator shall maintain on site at the facility where the unit is being operated a copy of the SCAQMD certification or SCAQMD approved source test reports, conducted by an independent third party, demonstrating that the specific unit complies with the emission limit. The source test report(s) must identify that the source test was conducted pursuant to a SCAQMD approved protocol. The model and serial numbers of the specified unit shall clearly be indicated on the source test report(s). The owner or operator shall maintain on the unit in an accessible location a permanent or permanent supplemental rating plate. The maintenance instructions, maintenance records, and the source test report(s) or SCAQMD certification shall be made available to the Executive Officer upon request.~~

Requirements (d) (cont.)

- Paragraphs (d)(8) and (d)(9) are existing requirements
- Updated language and references

Paragraph (d)(8)

(78) ~~Any person owning or operating~~ An owner or operator of a unit ~~Unit subject to this rule~~ complying ~~required to comply~~ with an pounds per million Btu emission limit ~~in Table 1 expressed as pounds per million BTU~~ shall install and maintain ~~in service~~ non-resettable, totalizing fuel meters for the fuel(s) supplied to each ~~unit's~~ Unit ~~fuel(s) pursuant to paragraph (j)(8)~~ prior to the compliance determination specified in ~~paragraph (e)(3) subdivision (g)~~.

Paragraph (d)(9)

(9) ~~An Owners~~ owner or operators of a ~~unit~~ Unit with a ~~combustion system~~ Combustion System that operates at only one firing rate, as required by permit condition, ~~that complies~~ and is required to comply with an emission limit ~~using~~ expressed as pounds per million ~~BTU~~ Btu shall install a non-resettable, totalizing time or fuel meter for the fuel(s) supplied to each ~~fuel~~ Unit pursuant to paragraph (j)(8).

Removed Outdated Rule Language

Requirements (d):

Removed Outdated Provisions

- Removed outdated rule language:
 - Compliance schedule (Table 2) – paragraph (c)(1)
 - Unit age – paragraph (c)(2)
 - Identification of Units – paragraph (c)(4)
 - Compliance by Certification – paragraph (c)(9)
 - Replaced with Compliance by Certification subdivision (h)
 - Alternative Compliance Plan for Multiple Units – paragraph (c)(10)
 - Alternative plan unnecessary, PAR 1153.1 has phased in emission limits based on burner and/or unit burner replacement

Note: References above are to current Rule 1153.1

Paragraph (e)(1)

Compliance Schedule (e)

- Paragraph (e)(1) establishes compliance schedule to meet Phase I Emission Limits
- Owner or operator must submit permit application when burner has been in operation for 22 years
 - 22 years based on 25-year useful life but builds in 3 years for design, permitting, and retrofit

(e) Compliance Schedule

(1) Phase I Emission Limits

An owner or operator of a Unit that is required to meet the Phase I Emission Limits and does not have an existing condition that limits the NOx and CO emissions to the applicable Phase I Emission Limits shall:

(A) Submit a permit application for each Unit to limit the NOx and CO emissions to a level not to exceed the Phase I Emission Limits:

(i) On or before July 1, 2024, for any Unit where the burner(s) is replaced or where the burner age is 22 years or older, as determined pursuant to paragraph (f)(1), as of [Date of Rule Adoption]; or

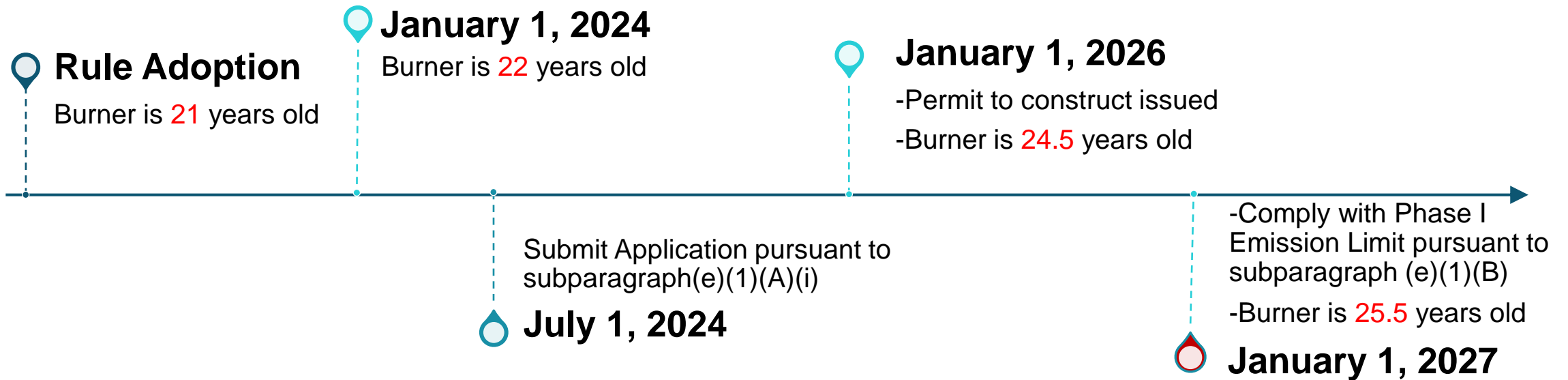
(ii) On or before the July 1st that follows the calendar year when a Unit's burner reaches 22 years, as determined pursuant to paragraph (f)(1); and

(B) Not operate a Unit that exceeds the applicable Phase I Emission Limit later than one of the following dates, whichever is sooner:

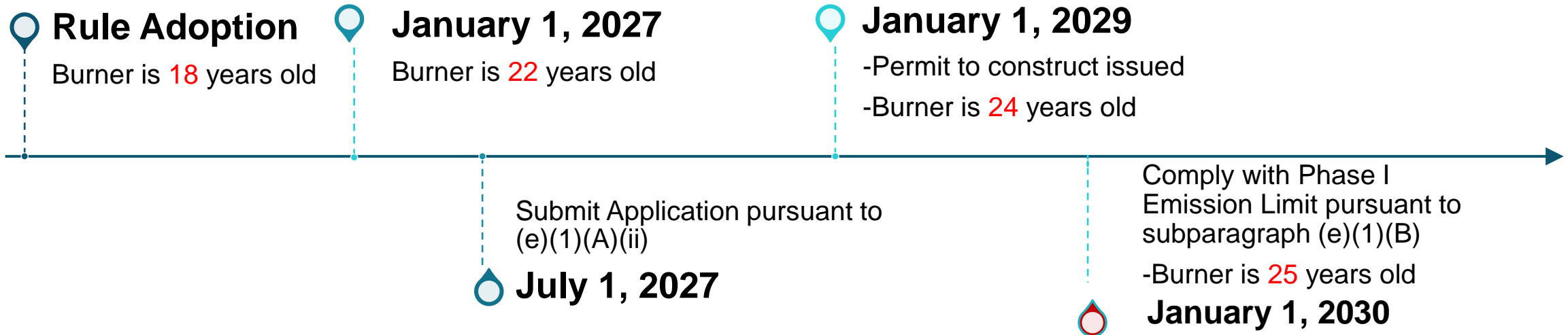
(i) 12 months after the date a permit is issued or the extension date as approved in writing pursuant to Rule 205 – Expiration of Permits to Construct (Rule 205); or

(ii) The burner age is 25 years.

Phase I Emission Limit Example One



Phase I Emission Limit Example Two



Compliance Schedule (e)

- Paragraph (e)(2) establishes compliance schedule for Phase II Emission Limits
 - Future effective date of January 1, 2027
 - Hybrid and zero emission limits
- Facility can elect to retrofit or decommission unit when the unit is 25 years old and burner is 10 years old
 - Permit submittal or decommission by July of year when unit and burner reach age threshold
 - Considering provision to address continual burner replacement

Paragraph (e)(2)

(2) Phase II Emission Limits

On and after January 1, 2027, an owner or operator of a Unit required to meet the Phase II Emission Limits shall:

(A) For existing Units that will be retrofit to meet Phase II Emission Limits and for Units with a Hybrid Oven emission limit pursuant to (d)(3), submit a permit application for each Unit to limit the NOx and CO emissions to a level not to exceed the Phase II Emission Limits:

(i) On or before July 1, 2027, if:

(A) The Unit is 25 years or older by January 1, 2027, as determined pursuant to paragraph (f)(2); and

(B) The burner is 10 years or older by January 1, 2027, as determined pursuant to paragraph (f)(1); and

(ii) On or before the July 1st after the end of the calendar year when:

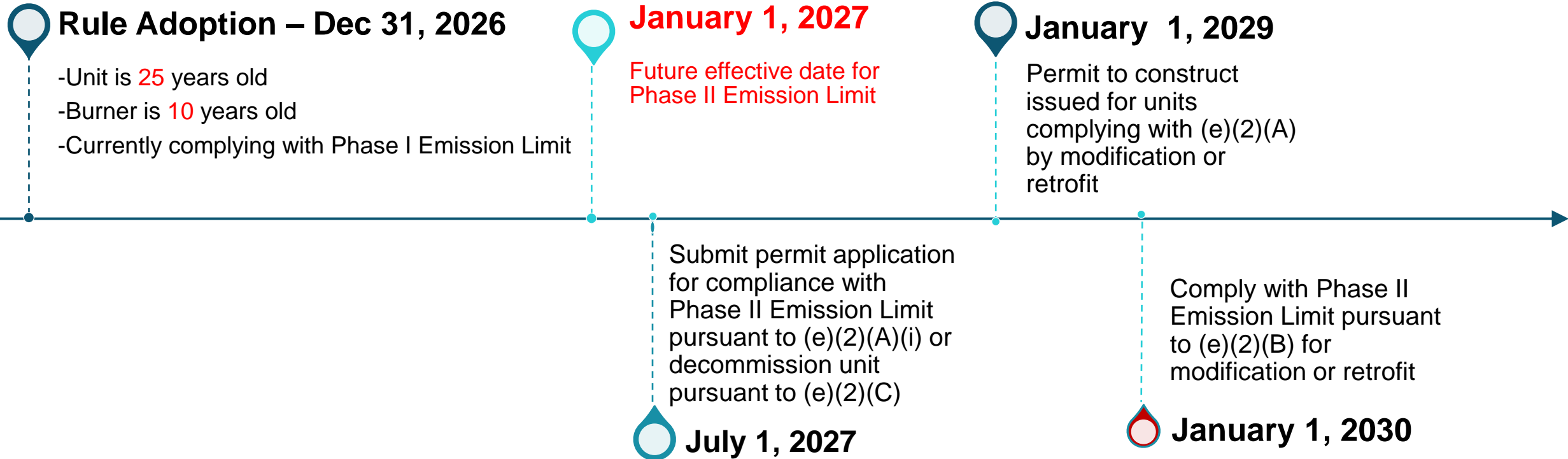
(A) The Unit reaches 25 years of age, as determined pursuant to paragraph (f)(2); and

(B) The burner reaches 10 years of age, as determined pursuant to paragraph (f)(1); and

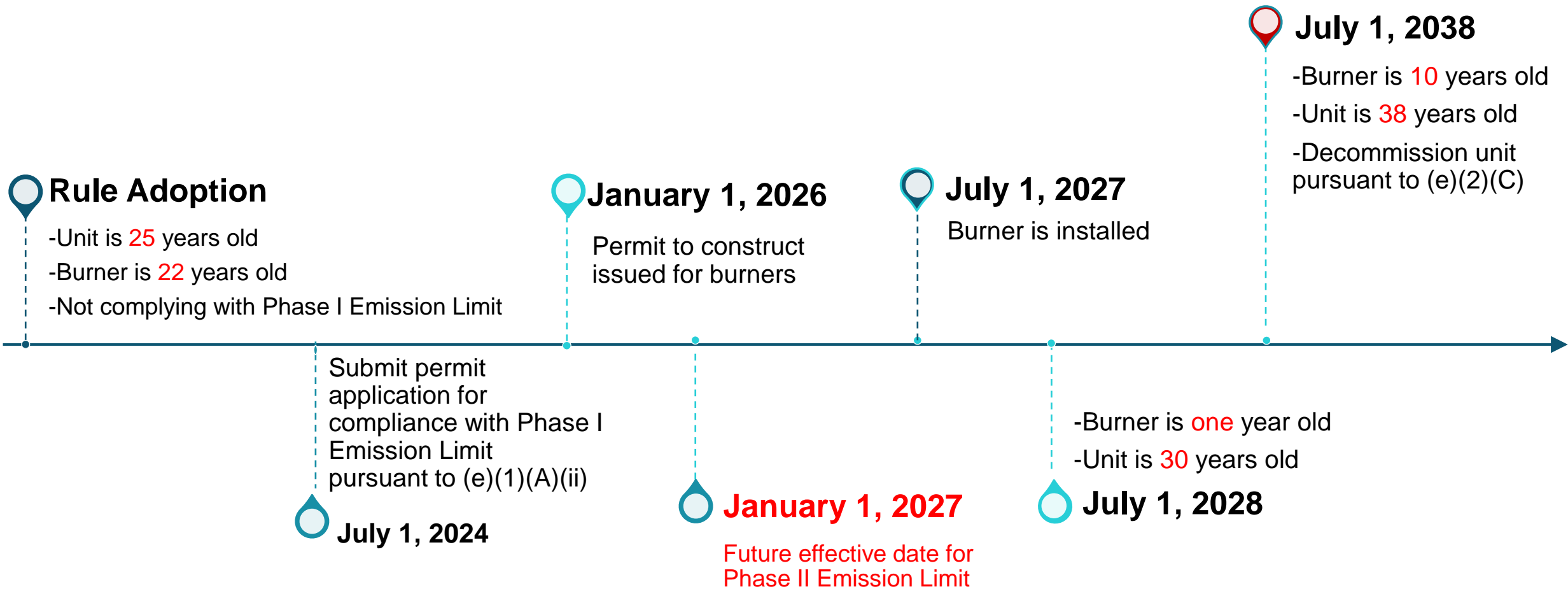
[...]

(D) Submit an application to comply with the volatile organic compound limits in Rule 1153 – Commercial Bakery Ovens, if applicable.

Phase II Emission Limit Example One



Phase II Emission Limit Example Two



Compliance Schedule (e)

Paragraph (e)(3)

(3) Phase III Emission Limits

On and after January 1, 2030, an owner or operator of a Unit required to meet the Phase III Emission Limits shall:

(A) For existing Units that will be retrofitted to meet Phase III Emission Limits, submit a permit application to modify an existing permit for each Unit to limit the NOx and CO emissions to a level not to exceed the Phase III Emission Limits:

(i) On or before July 1, 2030, if:

(A) The Unit is 25 years or older by January 1, 2030, as determined pursuant to paragraph (f)(2); and

(B) The burner is 10 years or older by January 1, 2030, as determined pursuant to paragraph (f)(1); and

(ii) On or before the July 1st after the end of the calendar year when:

(A) The Unit reaches 25 years of age, as determined pursuant to paragraph (f)(2); and

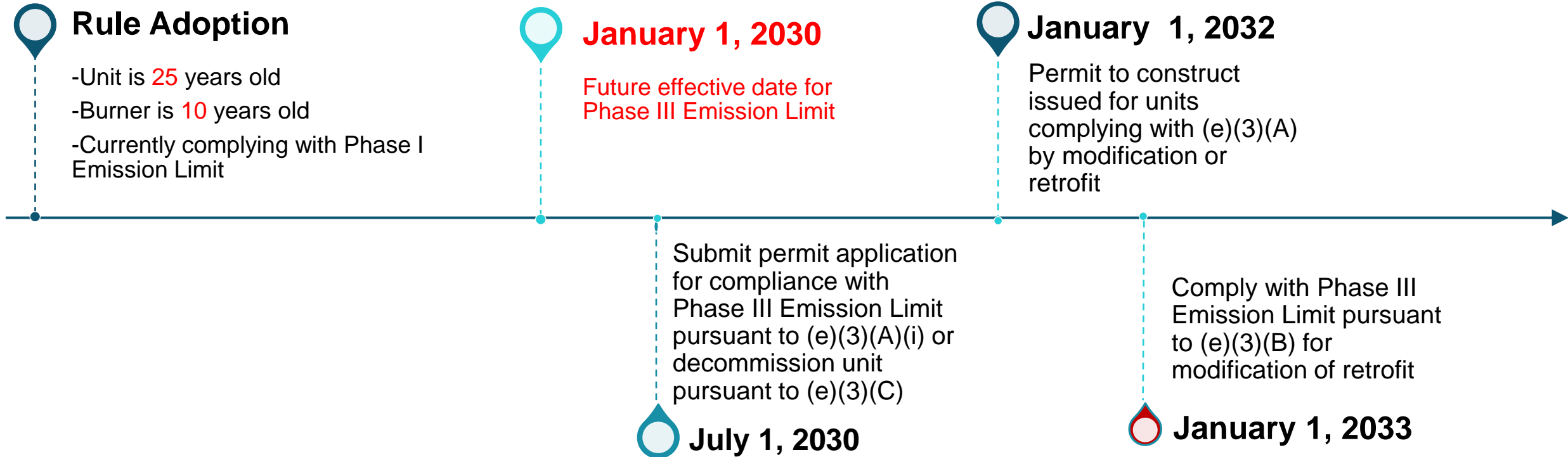
(B) The burner reaches 10 years of age, as determined pursuant to paragraph (f)(1); and

[...]

(D) Submit an application to comply with the volatile organic compound limits in Rule 1153 – Commercial Bakery Ovens, if applicable.

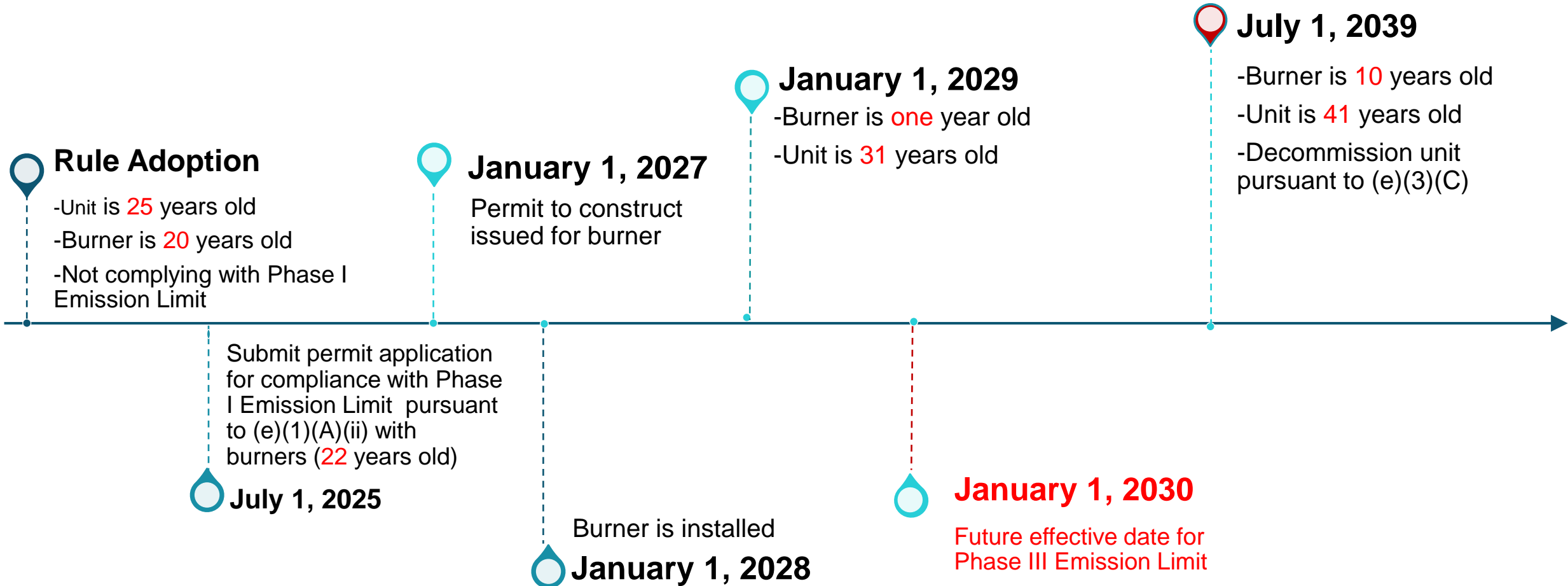
- Paragraph (e)(3) establishes compliance schedule for Phase III Emission Limits
 - Future effective date of January 1, 2030
 - Zero emission limits
- Facility can elect to retrofit or decommission unit when both the unit is 25 years old and burner are 10 years old
 - Permit submittal or decommission by July of year when unit and burner reach age threshold
 - Considering provision to address continual burner replacement

Phase III Emission Limit Example One



Phase III Emission Limit Example Two

Revised



Compliance Schedule (e)

- Paragraph (e)(4) provides an alternative schedule for facilities where the utility provider can not provide the necessary power to meet the Phase II or Phase III Emission Limits
 - Requirements in subdivision (k)
- Paragraph (e)(5) requires any unit electing to comply with the one pound or less of NOx per day that fails to demonstrate meet the Phase I Emission Limit

Paragraph (e)(4)

- (4) Alternative Compliance Schedule Phase II or Phase III Emission Limits
An owner or operator of a Unit that is required to meet a Phase II or Phase III Emission Limit that is unable to provide the necessary power to operate the Unit from their utility company within the compliance schedule in paragraph (e)(2) shall submit an Alternative Compliance Schedule Plan meeting the requirements in paragraph (k)(1).

New Paragraph (e)(5)

- (5) An owner or operator of a Unit that elects to comply with the one pound or less of NOx per day emission limit pursuant to paragraph (d)(5) that fails to demonstrate compliance pursuant to subdivision (i) shall:
- (A) Submit a permit application to meet the applicable Phase I Emission Limit within 180 days of failure to demonstrate compliance pursuant to subdivision (i) or exceeding the NOx emission limit pursuant to paragraph (d)(5); and
- (B) Not operate a Unit that exceeds the applicable Phase I Emission Limit by one of the following dates, whichever is sooner:

[...]

Paragraph (e)(6): Unit Decommissioning

Compliance Schedule for Decommissioning

(6) An owner or operator that elects to Decommission a Unit pursuant to paragraph (d)(6) in lieu of complying with the Phase I Emission Limits shall Decommission the Unit no later than 30 months after the applicable permit application submittal date pursuant to paragraph (e)(1).

- Paragraph (e)(6) establishes the schedule for an owner or operator electing to decommission a unit in lieu of complying with Phase I Emission Limit
 - Units must be decommissioned no later than 30 months after the permit submittal due date based on burner age of 22 years
 - Facility must decommission pursuant requirements in paragraph (d)(6)

Compliance Schedule (e) (cont.)

- Paragraph (e)(7) establishes schedule for a facility that fails to submit required documents for compliance by certification
- Paragraph (e)(8) establishes schedule for a facility that fails to operate a unit as specified by the compliance by certification

Paragraph (e)(7)

- (6) The owner or operator of any Unit that fails to meet the compliance by certification requirements specified in subparagraphs (h)(1)(A) through (h)(1)(E) or fails to submit manufacturer's emission certification, contract, or purchase order that is identical to the Combustion System specified in the application for the Unit's permit and installed in the Unit, shall demonstrate compliance with the applicable emission limit in Table 1 through source test pursuant to subdivision (g) according to the following schedule:
- (A) Submit a complete source test protocol within 180 days failing the compliance demonstration; and
 - (B) Conduct the initial source test within 90 days after receiving written approval of the Source Test Protocol by the Executive Officer; and
 - (C) Conduct subsequent source tests according to the schedule in paragraph (g)(7).

Paragraph (e)(8)

- (7) An owner or operator of any Unit that fails to operate the Unit as specified in the manufacturer's emission certification in subparagraphs (h)(1)(A) through (h)(1)(E), including specified processes, operating conditions, and temperatures, shall demonstrate compliance with the applicable emission limit in Table 1 through source test pursuant to subdivision (g) according to the following schedule:
- (A) Submit a complete source test protocol within 180 days failing the compliance demonstration; and
 - (B) Conduct the initial source test within 90 days after receiving written approval of the Source Test Protocol by the Executive Officer; and
 - (C) Conduct subsequent source tests according to the schedule in paragraph (g)(7).

Subdivision (f): Equipment Age

- Subdivision (f) establishes methodology for determining equipment age
- Paragraph (f)(1) specifies requirements for determining burner age
 - Needed for the compliance schedules
 - Language mirrors Rule 1147

Paragraph (f)(1): Burner Age

(f) Equipment Age

(1) Burner Age

An owner or operator of a Unit shall determine the burner age as follow:

(A) Burner age for a Unit equipped with burners of varying ages shall be based on the oldest burner age.

(B) Burner age shall be based on the original date of installation determined by:

(i) Invoice from purchase of burner equipment provided by burner manufacturer;

(ii) Information submitted to South Coast AQMD in previous permit applications for replacement of the specific burner;

(iii) Original Unit manufacturer's identification or rating plate permanently affixed to the Unit; or

(iv) Any other method of determining burner age that can be substantiated through written information as approved by the Executive Officer.

(C) The burner shall be deemed to be 22 years old as of January 1, 2024, for any Unit where the burner age cannot be determined pursuant to subparagraphs (f)(1)(A) and (f)(1)(B).

Subdivision (f): Equipment Age (*cont.*)

- Paragraph (f)(1) specifies requirements for determining unit age
 - Needed for the compliance schedules
 - Language mirrors Rule 1147

Paragraph (f)(2): Unit Age

(2) Unit Age

An owner or operator of a Unit shall determine the Unit age as follow:

(A) Unit age shall be based on the original date of installation determined by:

- (i) Invoice from purchase of Unit provided by manufacturer;
- (ii) Information submitted to South Coast AQMD in previous permit applications for Unit replacement;
- (iii) Original Unit manufacturer's identification or rating plate permanently affixed to the Unit; or
- (iv) Any other method of determining Unit age that can be substantiated through written information as approved by the Executive Officer.

(B) The Unit shall be deemed to be 25 years old as of July 1, 2026, for any Unit where the Unit age cannot be determined pursuant to subparagraph (f)(2)(A).

Changed name from “Compliance Determination” to “Source Test Requirements for Units Subject to Combustion-Based Emission Limit”

- Source tests will only be required on units that use combustion as the source of heat

Language updated and rearranged

All test method remain the same

Added a schedule to conduct an initial source test

Added a source test schedule of one every five years

Subdivision (g): Source Test Requirements

Source Test Requirements (g) (*cont.*)

- Paragraph (g)(1) has similar requirements as current rule but updated language to include source test requirement of every five years, but no sooner than 48 months

Paragraph (g)(1)

- (dg) ~~Compliance Determination~~ Source Test Requirements for Units Subject to Combustion-Based Emission Limits
- (1) An owner or operator of a Unit(s) subject to Combustion-Based Emission Limits or a South Coast AQMD permit concentration limit shall conduct simultaneous source tests for NOx and CO, averaged over a period of at least 15 consecutive minutes and no more than 60 consecutive minutes, to demonstrate compliance with the applicable Combustion-Based Emission Limit every five calendar years, but no earlier than 48 calendar months after the previous source test.

Source Test Requirements (g) (cont.)

- Paragraph (g)(2) establishes the initial source test used to determine subsequent source test schedule

Paragraph (g)(2)

- (2) An owner or operator of a Unit shall conduct an initial source test:
- (A) For Units installed before [Date of Adoption]:
- (i) No later than 24 months after [Date of Rule Adoption] or no later than 24 months after the date the facility operating the Unit becomes a Former RECLAIM Facility, whichever is later, and establish the date of this source test as the basis for subsequent source testing frequency; or
- (ii) Use the results of a South Coast AQMD-approved source test conducted between the applicable frequency required in paragraph (g)(1) and [Date of Rule Adoption] and establish the date of this source test as the basis for subsequent source testing frequency. The source test and source test protocol must be representative of the current operation of the equipment, or a new Source Test Protocol will be required to be submitted pursuant to paragraph (g)(3).
- (B) For Units installed after [Date of Adoption], within six months of Unit's initial start-up and establish the date of this source test as the basis for subsequent source testing frequency unless an extension of time has been approved in writing by the Executive Officer.

Source Test Requirements (g) *(cont.)*

- Paragraph (g)(3) requires submission of a source test protocol 60 days prior to conducting source test and conduct source test within 90 days of written approval

Paragraph (g)(3)

- (3) An owner or operator of a Unit required to conduct a source test pursuant to this subdivision shall:
- (A) Submit a complete Source Test Protocol for approval at least 60 days prior to conducting the initial source test; and
- (B) Conduct the source test within 90 days after issuance of a written approval of the Source Test Protocol by the Executive Officer.

Source Test Requirements (g) *(cont.)*

- Paragraph (g)(4) specifies when a new source test protocol is not required after approval of the initial protocol

New Paragraph (g)(4)

- (4) Unless requested by the Executive Officer, after the approval of the initial Source Test Protocol pursuant to paragraph (g)(3), an owner or operator of a Unit is not required to resubmit a Source Test Protocol for approval if:
- (A) The method of operation of the Unit has not been altered in a manner that requires a complete permit application submittal;
 - (B) Rule or South Coast AQMD permit emission limits have not changed since the previous source test;
 - (C) There have been no changes in the source test method(s) that is referenced in the approved Source Test Protocol; and
 - (D) The approved Source Test Protocol is representative of the operation and configuration of the Unit.

Paragraph (g)(5)

Source Test Requirements (g) (cont.)

- Paragraph (g)(5) establishes requirements for conducting source test and approved test methods
- Test methods have not changed

- (35) An owner or operator of a Unit shall conduct the source test to demonstrate ~~Compliance~~ compliance with the ~~NO_x and CO Phase I e~~ Emission I ~~Limits of subdivision (e) and determination~~ determine of stack-gas oxygen and carbon dioxide concentrations ~~for this rule shall be determined according to the following procedures:~~
- (A) Using an independent contractor to conduct testing, which is approved by the Executive Officer under the Laboratory Approval Program for the applicable test methods;
 - (B) Using a South Coast AQMD approved Source Test Protocol;
 - (C) At the maximum Heat Input of the Unit normal operating range;
 - (D) At a Heat Input of less than 35 percent of the Rated Heat Input Capacity;
and
 - (E) Using at least one of the following applicable test methods:
 - (Ai) ~~SCAQMD~~ South Coast AQMD Source Test Method 100.1 – Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling (March 1989);
 - (Bii) ASTM Method D6522-00 – Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating

[...]

Source Test Requirements (g) *(cont.)*

- Paragraphs (g)(5) and (g)(6) moved to MRR subdivision

Original Paragraph (5)

~~(5) — Records of source tests shall be maintained on site and made available to SCAQMD personnel upon request. Emissions determined to exceed any limits established by this rule through the use of any of the test methods specified in subparagraphs (d)(3)(A) through (d)(3)(F) and paragraph (d)(4) shall constitute a violation of this rule.~~

Original Paragraph (6)

~~(6) — All compliance determinations shall be made by SCAQMD or using an independent contractor to conduct testing, which is approved by the Executive Officer under the Laboratory Approval Program for the applicable test methods.~~

Subparagraph (g)(7)

Source Test Requirements (g) (cont.)

- Paragraph (g)(7) expanded to include other equipment in series
 - Afterburners, thermal oxidizers, and vapor incinerators subject to Rule 1147
- Options for testing units in series not changed
 - Test each unit separately
 - Test unit at the end of series and use weighted limit

- (7) ~~For equipment with two or more units in series or multiple units with a common exhaust, the~~ An owner or operator of equipment with two or more Units in series or multiple Units with a common exhaust, including an afterburner, thermal oxidizer, or vapor incinerator subject to Rule 1147 – NOx Reductions from Miscellaneous Sources (Rule 1147) may elect to demonstrate compliance with the applicable emission limits in Table 1 by one of the following:
- (A) Test each ~~unit~~ Unit separately and demonstrate each ~~unit's~~ Unit's compliance with the applicable emission limit; or
 - (B) Test only after the last ~~unit~~ Unit in the series and at the end of a common exhaust for multiple ~~units~~ Units, when all ~~units~~ Units are operating, and demonstrate that the series of ~~units~~ Units meet either:
 - (i) The lowest applicable emission limit in Table 1, or the applicable rule limit to for any of the ~~units~~ Units in series; or
 - (ii) A ~~heat input~~ Heat Input weighted average of all the applicable emission limits in Table 1 using the following calculation:

[...]

Source Test Requirements (g) *(cont.)*

- Paragraph (g)(8) establishes that any exceedance will constitute a violation
 - Moved from existing rule's enforcement subdivision

Paragraph (g)(8)

(8) Emissions determined to exceed any limit established by this rule using any of the test methods specified in subparagraph (g)(4)(F) shall constitute a violation of this rule.

Replaces the existing Certification subdivision

Mirrors the language in Rules 1147 and 1147.1

- Allows units with a Rated Heat Input Capacity of 2 million Btu per hour or less to demonstrate compliance through manufacturer guarantees instead of source testing

New
Subdivision (h):
Compliance by
Certification

Compliance by Certification (h) (cont.)

- Currently subdivision (e) Certification in Rule 1153.1
- Moved to subdivision (h)
- Paragraph (h)(1) language was updated and mirrors language in Rule 1147

Paragraph (h)(1)

(h) Compliance by Certification for Units Subject to Phase I Emission Limits

(1) The owner or operator of a Unit subject to Phase I Emission Limits with a Rated Heat Input Capacity of 2 million Btu per hour (MMBtu/hr) or less may elect to demonstrate compliance with the applicable emission limit through a burner manufacturer's emission certification in lieu of source test by providing the following information with a permit application:

(A) Emission certifications, provided by the burner(s) manufacturer or an manufacturer authorized burner(s) distributor and signed by the burner manufacturer's Responsible Official that guarantees the burner(s), fuel and combustion air system, and combustion control system identified in the permit application comply with the applicable NOx emission limit in Table 1 when used for specified processes and operating conditions, and within specified temperature ranges;

(B) The signed emissions certifications separately provided by the manufacturer or manufacturer authorized distributor of the burner(s) addressed to:

(i) The owner or operator of the Unit; and

Compliance by Certification (h) (cont.)

- Subparagraphs (h)(1)(C) through (h)(1)(E) lists required supporting documentation to be submitted with permit application

Subparagraph (h)(1)(C)

- (C) Any supporting documentation, submitted by the manufacturer or manufacturer authorized distributor of the burner(s) to the Executive Officer or designee, including emission test reports of at least five South Coast AQMD approved emission tests using a South Coast AQMD approved test protocol and methods for five different Units operating the same:
- (i) Process;
 - (ii) Burner;
 - (iii) Fuel and combustion air system;
 - (iv) Combustion control system; and
 - (v) Temperature range;

Subparagraph (h)(1)(D)

- (D) The emission test results specified in subparagraph (h)(1)(C) approved by the Executive Officer prior to submittal of the permit application; and

Subparagraph (h)(1)(E)

- (E) A contract or purchase order, signed by the Responsible Official representing the owner or operator of the Unit, for purchase of the burner(s), fuel and combustion air system, and combustion control system to be installed in the Unit as identified in the permit application and the signed letter or bid from the burner manufacturer to the owner or operator of the Unit as specified in subparagraph (h)(1)(A).

Compliance by Certification (h) *(cont.)*

- Paragraph (h)(2) establishes violation determination for Unit that is found to exceed emission limit
 - Provision similar to current rule's subdivision (f), which was deleted

Paragraph (h)(2)

(2) Any compliance determination conducted by the Executive Officer for a Unit complying with this subdivision that results in emissions in excess of those allowed in this rule shall constitute a violation.

Includes procedures to demonstrate the new allowance to average the one pound over a calendar month

- Mirrors Rule 1147 and 1147.1

Existing procedure to demonstrate the daily allowance moved from exemptions subdivision

- Language remains the same

New
Subdivision (i):
Demonstration
of one pound or
less of NO_x per
day

Demonstration of one pound or less of NOx per day (i) (cont.)

- Paragraph (i)(1) is new option to demonstrate one pound per day average over a calendar month
 - Provided three methods for determination
 - Mirrors language in Rules 1147 and 1147.1

Paragraph (i)(1)

(i) Demonstration of one pound or less of NOx per day

(1) One pound or less of NOx per day – monthly demonstration

On or before January 1, 2024, an owner or operator of a Unit electing to comply with paragraph (d)(5) by demonstrating that NOx emissions are less than one pound per day averaged over a calendar month shall:

(A) Install and maintain a non-resettable totalizing time meter on the Unit pursuant to paragraph (j)(8) and operate the Unit no more than the specified time per calendar month in Table 2 or as calculated using Equation 1 (Eq. 1); or

$$\text{Monthly Operating Hours} = D \div [R \times (EF \div HHV)] \text{ (Eq. 1)}$$

Where:

D = Number of Days in Calendar Month

R = Rated Heat Input (MMBtu/hr)

EF = Emission Factor for the Unit (lbs NOx/million standard cubic feet (MMScf) natural gas)

HHV = Higher Heating Value of Natural Gas (1,050 MMBtu/MMScf)

Demonstration of one pound or less of NOx per day (i) (cont.)

- Table 2 and Equation 2 are the second and third methods for demonstrating the less than one pound per day based on a monthly average

Table 2

Table 2 – Less than One Pound per Day, Monthly Operating Limits

<u>Unit Rated Heat Input (Btu/hr)</u>	<u>Monthly Operating Limit (Hours)</u>
<u>≤ 400,000</u>	<u>320</u>
<u>>400,000 to < 800,000</u>	<u>160</u>
<u>> 800,000 to ≤ 1,200,000</u>	<u>100</u>

Subparagraph (i)(1)(B)

(B) Install and maintain a non-resettable totalizing fuel meter pursuant to paragraph (j)(9) corrected to Standard Conditions on the Unit and consume no more than the Therms of fuel per month calculated using Equation 2 (Eq. 2).

$$\text{Monthly Therms of Fuel} = (D \div EF) \times \text{HHV} \times 10 \quad (\text{Eq. 2})$$

Where:

D = Number of Days in Calendar Month

EF = Emission Factor for the Unit (lbs NOx/MMScf natural gas)

HHV = Higher Heating Value of Natural Gas (1,050 MMBtu/MMScf)

10 = Conversion to from MMBtu to Therms

Paragraph (i)(2)

Demonstration of one pound or less of NOx per day (i) (cont.)

- Paragraph (i)(2) includes existing demonstration from exemptions
 - Procedure and requirements for determining daily one pound or less is unchanged

(2) One pound or less of NOx per day – daily demonstration

An owner or operator of a Unit electing to comply with paragraph (d)(5) by demonstrating daily NOx emissions of one pound or less per day shall:

(A) Install and maintain a non-resettable totalizing time meter on the Unit pursuant to paragraph (j)(8) and operate the Unit no more than the specified time in Table 3; or

Table 3 – Less than One Pound per Day, Daily Operating Limits

<u>Unit Rated Heat Input (Btu/hr)</u>	<u>Daily Operating Limit (Hours)</u>
<u>≤ 400,000</u>	<u>16</u>
<u>>400,000 to ≤ 800,000</u>	<u>8</u>
<u>> 800,000 to ≤ 1,200,000</u>	<u>5</u>

(B) Install and maintain a non-resettable totalizing fuel meter on the Unit pursuant to paragraph (j)(8) and operate the Unit using less than or equal to 7,692 cubic feet per day of natural gas corrected to Standard Conditions and maintain records pursuant to paragraph (j)(9).

~~(e) — Certification~~

~~(1) — Unit Certification~~

~~For units that do not allow adjustment of the fuel and combustion air for the combustion system by the owner or operator, any manufacturer or distributor that distributes for sale or sells units or combustion systems for use in the SCAQMD may elect to apply to the Executive Officer to certify such units or combustion systems as compliant with subdivision (e).~~

~~(2) — Confirmation of Emissions~~

~~Any manufacturer's or distributor's application to the Executive Officer to certify a model of unit or combustion system as compliant with the emission limit and demonstration requirement of subdivision (e) shall obtain confirmation from an independent contractor that is approved by the Executive Officer under the Laboratory Approval Program for the necessary test methods prior to applying for certification that each unit model complies with the applicable requirements of subdivision (e). This confirmation shall be based upon SCAQMD approved emission tests. A SCAQMD approved protocol shall be adhered to during the confirmation testing of all units and combustion systems subject to this rule. Emission testing shall comply with the requirements of paragraphs (d)(1) through (d)(6) except that emission testing shall be conducted at greater than 90% rated heat input capacity and additional emission testing shall be conducted at a heat input of less than 35% of the rated heat input capacity.~~

Current Subdivision (e) – Unit Certification

- Entire subdivision deleted (only showing first two paragraphs)
- Replaced by new subdivision (h)

Existing Rule 1153.1 currently has MRR requirements in multiple subdivisions

- Added subdivision to consolidate MRR requirements
- Most provisions are not new

Added provision to clarify that RECLAIM facilities will continue to be subject to MRR requirements in Regulation XX until facility exits RECLAIM

Added provision for facilities with units subject to zero-emission requirements to provide and maintain documentation of unit age, anticipated replacement date, and to communicate early with utility provider.

New Subdivision (j):

Monitoring, Recordkeeping, and Reporting (MRR)

Subdivision (j) MRR (*cont.*)

- Rule 1153.1 had MRR requirements in multiple subdivisions
- Paragraph (j)(1) contains updated language and MRR requirements moved into subdivision (j)

Paragraph (j)(1)

(j) Monitoring, Recordkeeping, and Reporting Requirements

- (1) An owner or operator of a certified Unit pursuant to paragraph (h)(1) shall maintain records of Unit installation, operation, maintenance, repair, Combustion System modification, and test records of owners, operators, manufacturers, distributors, retailers, and installers of Units located in the South Coast AQMD, and conduct such tests as are deemed necessary to ensure compliance with this rule.

Subdivision (j) MRR (*cont.*)

- Paragraph (j)(2) added for facilities with units subject to the zero emission requirements to identify the age and anticipated date of replacement
- Also requires the facility to engage with utility company early to prevent delays

Paragraph (j)(2)

- (2) An owner or operator of a Unit(s) subject to a Phase II Emission Limit shall provide the following documentation to the Executive Officer:
- (A) On or before January 1, 2024, documentation identifying the age of the Unit(s) pursuant to paragraph (f)(2) and anticipated date of replacement; and
- (B) On or before January 1st of the year when a Unit's age reaches 17 years or older, as determined pursuant to paragraph (f)(2), an official document on company letterhead signed by the responsible party of the utility company that services the facility that includes:
- (i) An explanation if service upgrades will be required by the utility company to power Unit(s) replacing existing Unit(s) to meet the applicable Phase II Emission Limit(s); and
- (ii) The estimated timeframe required from the utility company to complete the service upgrades.

Subdivision (j) MRR (cont.)

- Paragraph (j)(3), (j)(4), and (j)(5) language was added and mirrors Rule 1147 labeling requirements for the unit

Paragraph (j)(3)

(3) An owner or operator of a Unit shall maintain on site a copy of all documents identifying the Unit's Rated Heat Input Capacity. The Rated Heat Input Capacity shall be identified by a manufacturer's or distributor's manual or invoice and permanent rating plates attached to the Unit and individual burners.

Paragraph (j)(4)

(4) An owner or operator of a Unit shall display and maintain the model number and Rated Heat Input Capacity of the Unit burner(s) on a permanent rating plate.

Paragraph (j)(5)

- (5) The owner or operator of a Unit that is modified shall:
- (A) Display the new Rated Heat Input Capacity on a new permanent supplemental rating plate installed in an accessible location on the Unit or burner; and
 - (B) Determine the date of Unit modification pursuant to the burner age determination requirements of subdivision (f).

Subdivision (j) MRR (*cont.*)

- Paragraph (j)(6) was originally paragraph (c)(6) in requirements of Rule 1153.1

Paragraph (j)(6)

- (6) An owner or operator of a Unit subject to subdivision (g) shall maintain the following records, for a period of not less than five years, on site at the facility where the Unit is being operated:
- (A) A copy of the written maintenance schedule and instructions by the manufacturer, distributor, installer, or maintenance company and retain a record of the maintenance activity;
- (B) A copy of the South Coast AQMD certification or the South Coast AQMD approved source test reports, conducted by an independent third party, demonstrating that the specific Unit complies with the applicable emission limit; and
- (C) Reports of the source test(s) conducted pursuant to a South Coast AQMD approved Source Test Protocol which include the Unit's model and serial numbers.

Subdivision (j) MRR (*cont.*)

- Paragraph (j)(7) requires the facility to maintain records for:
 - Source tests conducted
 - Records of unit age and documentation from utility provider pursuant to paragraph (j)(2)

Paragraph (j)(7)

(7) Records of source tests pursuant to subdivision (g) and records pursuant to paragraph (j)(2) shall be maintained on site for at least five years and made available to the Executive Officer upon request.

Subdivision (j) MRR (*cont.*)

- Paragraph (j)(8) includes requirements for time and fuel meters similar to most NOx rules

Paragraph (j)(8)

- (8) An owner or operator of a Unit requiring a non-resettable totalizing fuel meter or non-resettable time meter to comply with any provision in this rule shall:
- (A) On or before January 1, 2024, install and operate a non-resettable totalizing fuel meter or non-resettable time meter, unless a metering system is currently installed, and the fuel meter or time meter is approved in writing by the Executive Officer;
- (B) Each non-resettable totalizing fuel meter or non-resettable time meter shall be equipped with a permanent supply of electric power that cannot be unplugged, switched off, or reset except by the main power supply circuit for the building and associated equipment or the safety shut-off switch;
- (C) Ensure that the continuous electric power to the non-resettable totalizing fuel meter or non-resettable time meter may only be shut off for maintenance or safety; and
- (D) Ensure each non-resettable totalizing fuel meter or non-resettable time meter is calibrated and recalibrate the meter annually, thereafter, based on the manufacturer's recommended procedures. If the non-resettable totalizing fuel meter or non-resettable time meter was calibrated within one year prior to January 1, 2024, the next calibration shall be conducted within one year of the anniversary date of the prior calibration.

Subdivision (j) MRR (*cont.*)

- Paragraph (j)(9) new language requiring facilities to maintain records for five years if they elect to comply with the one pound or less of NOx per day

Paragraph (j)(9)

(9) An owner or operator of a Unit complying with the one pound or less of NOx emission limit pursuant to paragraph (d)(5) as demonstrated pursuant to subdivision (i) shall keep daily records documenting the use of the Unit, including, but not limited to, time records of Unit operation using a unit-specific non-resettable time meter, daily fuel consumption documented using a non-resettable fuel meter, and daily process rate. Daily records shall be retained on site for at least five years and be made available to the Executive Officer upon request.

Subdivision (j) MRR (*cont.*)

- Paragraph (j)(10) was originally subparagraph (g)(2)(E) in exemptions of Rule 1153.1
 - Language was updated and moved to subdivision (j) in PAR 1153.1

Paragraph (j)(10)

(10) An owner or operator of a Unit complying with the NOx emission limit of one pound or less per day in paragraph (d)(3) as demonstrated pursuant to subparagraph (i)(2)(C) shall keep daily records documenting fuel gas consumption with a non-resettable fuel meter and a test protocol, calculations, and results of a test of gas pressure to the meter conducted by the local utility or an independent contractor. The documentation of gas pressure to the meter shall include a letter stating that the test was performed using the approved test protocol and the letter shall be signed by the person performing the test. Records shall be retained on site for at least five years and be made available to the Executive Officer upon request.

Current Subdivision (f) – Enforcement

(f) Enforcement

- (1) ~~The Executive Officer may inspect certification records and unit Unit installation, operation, maintenance, repair, combustion system Combustion System modification, and test records of owners, operators, manufacturers, distributors, retailers, and installers of units Units located in the SCAQMD South Coast AQMD, and conduct such tests as are deemed necessary to ensure compliance with this rule. Tests shall include compliance determinations, as specified in subparagraphs (d)(1) through (d)(4), (d)(6), and (d)(7) (g)(4)(F).~~
- (2) ~~A compliance determination specified under paragraph (fj)(1) that finds emissions in excess of those allowed by this rule shall constitute a violation of this rule.~~

- Subdivision deleted
- Similar language to current paragraph (f)(2) added to the end of subdivision (g) Source Test Requirements and subdivision (h) Compliance by Certification

Requirements

- For facilities that need an extended compliance schedule due to delays from the utility provider

New
Subdivision (k):
Alternative
Compliance
Schedule Plan

Subdivision (k)

Subdivision (k) Alternative Compliance Schedule Plan (cont.)

- Subdivision (k) establishes requirements for facilities that need an alternative compliance schedule due to delays from utility provider
- Plans will be considered for approval if delays are outside the facilities control

(k) Alternative Compliance Schedule Plan

(1) Alternative Compliance Schedule Plan Requirements

An owner or operator of a Facility with a Unit(s) subject to Phase II or Phase III Emission Limits may submit an Alternative Compliance Schedule Plan no later than one year prior to the compliance schedule specified in either clause (e)(2)(A)(i) or (e)(2)(A)(ii), whichever is applicable, to request an extended compliance schedule. The Alternative Compliance Schedule Plan shall include the following:

(A) The unit(s) requiring the Alternative Compliance Schedule Plan;

(B) An official document on company letterhead signed by the responsible party of the utility company that services the facility that includes:

(i) An explanation of the service upgrades required by the utility company;

(ii) Communications with the utility provider when the service upgrade was requested;

(iii) The estimated date the utility company will complete the service upgrades;

(iv) Additional information to substantiate that an Alternative Compliance Schedule Plan is necessary; and

(v) Documentation which demonstrates that the delays are outside of the control of the owner or operator.

Subdivision (k)

Subdivision (k) Alternative Compliance Schedule Plan (cont.)

- Subdivision (k) describes the plan review and approval process, and when an owner or operator shall decommission applicable units after approval

- (2) Alternative Compliance Schedule Plan Review and Approval Process
The Executive Officer will notify the owner or operator of a Facility in writing whether the Alternative Compliance Schedule Plan is approved or disapproved. The Alternative Compliance Schedule Plan shall be approved if the following criteria is met, and they are subject to disapproval if any of the following, applicable criteria are not met:
- (A) The owner or operator submitted a complete Alternative Compliance Schedule Plan at least one year prior to the compliance schedule specified in paragraph (e)(2); and
- (B) The Alternative Compliance Schedule Plan includes all the required information in paragraph (k)(1).
- (3) Upon receiving approval of an Alternative Compliance Schedule Plan pursuant to paragraph (k)(2), the owner or operator of a Facility shall Decommission each Unit with a NOx emission limit that exceeds the applicable Phase II or Phase III Emission Limit within six months of the date specified in clause (k)(1)(B)(iii) in the approved Alternative Compliance Schedule Plan.

Subdivision (k)

Subdivision (k) Alternative Compliance Schedule Plan (cont.)

- Subdivision (k) includes requirements in the event that a plan is disapproved

- (4) Within 45 days of receiving written notification from Executive Officer that the Alternative Compliance Schedule Plan is disapproved, the owner or operator shall correct any deficiencies and re-submit the Alternative Compliance Schedule Plan.
- (5) Upon receiving written notification from the Executive Officer that the Alternative Compliance Schedule Plan re-submitted pursuant to paragraph (k)(4) is disapproved, the owner or operator shall:
 - (A) Decommission each Unit with a NOx emission limit that exceeds the applicable Phase II or Phase III Emission Limit pursuant to the compliance schedule in paragraph (e)(2); or
 - (B) Submit a complete permit application for each Unit in the disapproved Alternative Compliance Schedule Plan to apply for a permit condition that limits the NOx emissions to a level not to exceed the applicable Phase II or Phase III Emission Limit within 60 days from receiving the written disapproval of the re-submitted Alternative Compliance Schedule Plan; and
 - (C) Not operate a Unit that exceeds the applicable Phase II or Phase III Emission Limit pursuant to the schedule in paragraph (e)(2) for Phase II Emission Limits and paragraph (e)(3) for Phase III Emission Limits.

Subdivision (k)

Subdivision (k) Alternative Compliance Schedule Plan (cont.)

- Subdivision (k) includes requirements for owners or operators seeking to modify an approved plan, and information regarding Plan Fees

(6) Modifications to an Approved Alternative Compliance Schedule Plan

An owner or operator of a Facility that seeks approval to modify an approved Alternative Compliance Schedule Plan shall submit a request in writing to the Executive Officer to modify an approved Alternative Compliance Schedule Plan that includes all the submittal requirements pursuant to paragraph (k)(1).

(7) The Executive Officer will review any modifications to an approved Alternative Compliance Schedule Plan in accordance with the review and approval process pursuant to paragraph (k)(2).

(8) Plan Fees

The review and approval of an Alternative Compliance Schedule Plan or review and approval of a modification of an approved Alternative Compliance Schedule Plan shall be subject to applicable plan fees pursuant to Rule 306 – Plan Fees.

Most exemptions remain unchanged

Some provisions listed as exemptions were moved

- One pound a day alternative limit
- Demonstration for the one pound a day limit

Deleted the RECLAIM Exemption

- PAR 1153.1 is a landing rule, will apply to RECLAIM facilities upon adoption

Subdivision (I): Exemptions

Subdivision (I) Exemptions (*cont.*)

- Staff considering if Rule 222 exemption is necessary, might retain exemption
- Deleted RECLAIM exemption
- Moved subparagraph (I)(1)(F)
- Added paragraph (I)(2) for zero-emission units
 - Existing zero emission units will not be subject to:
 - Compliance schedule for Phase II or Phase III
 - Documentation requirements in paragraph (j)(2)

(g) Exemptions

- (1) The provisions of this rule shall not apply to an owner or operator of the following equipment:
 - (A) Boilers, water heaters, thermal fluid heaters, or process heaters, including, but not limited to those that provide heat to a Unit through a heat exchange system, subject to the following ~~SCAQMD~~ South Coast AQMD rules:
 - (i) Rules 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters;
 - (ii) Rule 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; ~~or~~
 - (iii) Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters; ~~or, including but not limited to those that provide heat to a unit through a heat exchange system~~;
 - (iv) Rule 1147.
 - ~~(B) Units subject to registration pursuant to SCAQMD Rule 222;~~
 - ~~(C) Units regulated under Regulation XX;~~
 - ~~(D)~~ Solid fuel-fired combustion equipment;
 - ~~(E)~~ Charbroilers as defined by Rule 1147;
 - ~~(F)~~ Fryers, including fryers used for nut, seed, or other food product oil roasting; ~~and~~
 - ~~(G)~~ Emission control equipment, including but not limited to afterburners, thermal oxidizers, and vapor incinerators as defined by Rule 1147; and
 - (F) Units with a Rated Heat Input Capacity less than 325,000 Btu per hour pursuant to paragraph (j)(4).
- (2) The provisions of paragraphs (e)(2), (e)(3) and subdivision (j) shall not apply to an owner or operator of a Unit with NOx and CO emission not exceeding the applicable Phase II or Phase III Emission Limit upon [Date of Rule Adoption].

Technology Assessments

Technology Assessment

- Staff is proposing a technology assessment prior to each future effective date to assess proposed zero-emission limits
- Included as part of resolution included in Governing Board Package
- Resolution is legally binding document

Proposed Resolution Language

*“**BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board directs staff to conduct a technology assessment on the status of the zero-emission technologies for **commercial bakery ovens, cooking ovens, during ovens, and smokehouses** and report to Stationary Source Committee **by July 2025** to present findings and potential recommendations”*

*“**BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board directs staff to conduct a technology assessment on the status of the zero-emission technologies for **commercial bakery ovens, tortilla ovens, and roasters** to Stationary Source Committee **by July 2028** to present findings and potential recommendations”*

Technology Assessment (*cont.*)

- Technology assessments require staff evaluate the progress of technology forcing emission limits
 - Staff presents findings and makes recommendations to Committee or Governing Board
- Depending on results of assessment, staff may amend rule to allow more time before emission limits go into effect or amend emission limits

Emission Reductions, Cost-effectiveness, and Incremental Cost-Effectiveness

Emission Reductions

- Emission reductions were calculated on a per unit basis for all units impacted by the rule using:
 - Annual Reported Emissions
 - Current Permit Limit or Emission Factor
 - Source Test Results (if available)
 - Proposed BARCT Limits
- Proposed Amended Rule 1153.1 will reduce NOx emissions from applicable units by:
 - 0.2 tons per day (tpd)

Equipment Categories	NOx Emission Reductions at 30 ppmv (tpd)	NOx Emission Reductions at 0 ppmv (tpd)	NOx Emission Reduction at Full Implementation
Indirect-Fired Bakery Ovens	0	0.005	0.005
Direct-Fired Bakery Ovens (> 3 MMBtu/hr)	0.008	0.08	0.08
Direct-Fired Bakery Ovens (> 3 MMBtu/hr)	0.006	0.05	0.05
Tortilla Ovens	0.007	0.009	0.016
Cooking Ovens	0	0.02	0.02
Drying Ovens	0.00002	0.009	0.009
Spray Dryers	0.0006	N/A	0.006
Smokehouses	0.0010	0.011	0.011
Roasters	0.00032	0.012	0.012
Total			0.2

Cost-Effectiveness by Category

- Cost effectiveness was evaluated for all units that will have to replace burners or the unit to achieve proposed limits
- Rule schedule requires units to meet limits after useful life, minimizing costs to facilities

Equipment Categories	Cost-Effectiveness at 30 ppmv	Cost-Effectiveness at 0 ppmv	Incremental Cost-Effectiveness (30 ppmv to 0 ppmv)
Indirect-Fired Bakery Ovens	\$0	\$38,000	\$38,000
Direct-Fired Bakery Ovens (>3 MMBtu/hr)	\$34,000	\$111,000	\$119,000
Direct-Fired Bakery Ovens (≤ 3MMBtu/hr)	\$27,000	\$57,000	\$61,000
Tortilla Ovens	\$19,000/ \$0* @15 ppmv	\$90,000	\$116,000
Cooking Ovens	\$0	\$38,000	\$38,000
Drying Ovens	\$36,000	\$40,000	\$38,000
Spray Dryers	\$12,000	N/A	N/A
Smokehouses	\$20,000	\$9,000	\$8,000
Roasters	\$41,000	\$189,000	\$197,000

*Proposed BARCT limit is currently being achieved, no further action is required

Socioeconomic Impact Assessment and California Environmental Quality Act (CEQA)

Socioeconomic Impact Assessment

- California Health and Safety Code Sections § 40440.8 and 40728.5
 - Requires socioeconomic impact assessment for proposed rule or rule amendment which “will significantly affect air quality or emissions limitations”
 - Socioeconomic impact assessment shall consider:
 - Type of affected industries, including small businesses
 - Range of probable costs, including costs to industry or business
 - Impact on employment and regional economy
 - Other elements typically included in the Staff Report

California Environmental Quality Act (CEQA)

- The proposed project (PAR 1153.1) does not have any project requiring physical modifications that would cause significant adverse effect on the environment
- The proposed project is exempt from CEQA and a Notice of Exemption will be prepared pursuant to:
 - CEQA Guidelines Section 15061 (b)(3) – Common Sense Exemption, which exempts activities where it can be seen with certainty that there is no possibility that the activities may have a significant adverse effect on the environment

Next Steps



End of Comment Period on April 14, 2023



Stationary Source Committee on April 21, 2023



Set Hearing on May 5, 2023



Public Hearing on June 2, 2023

Contacts

Michael Krause
Assistant DEO
mkrause@aqmd.gov
909.396.2706

Heather Farr
Planning and Rules Manager
hfarr@aqmd.gov
909.396.3672

Sarady Ka
Program Supervisor
ska@aqmd.gov
909.396.2331

Christopher Bradley
AQ Specialist
zbanan@aqmd.gov
909.396.2185

Contacts

Socioeconomic Impact Assessment

Tony Tian, Ph.D
Program Supervisor
ttian@aqmd.gov
909.396.2323

James McCreary
AQ Specialist
jmccreary@aqmd.gov
909.396.2451

California Environmental Quality Act (CEQA)

Barbara Radlein
Program Supervisor
bradlein@aqmd.gov
909.396.2716

Farzaneh Khalaj
AQ Specialist
fkhalaj@aqmd.gov
909.396.3022