Proposed Amended Rule 1153.1

Emissions of Oxides of Nitrogen from Commercial Food Ovens

Working Group Meeting #7
March 08, 2023

Join Zoom Webinar Meeting

https://scaqmd.zoom.us/j/97686364720

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

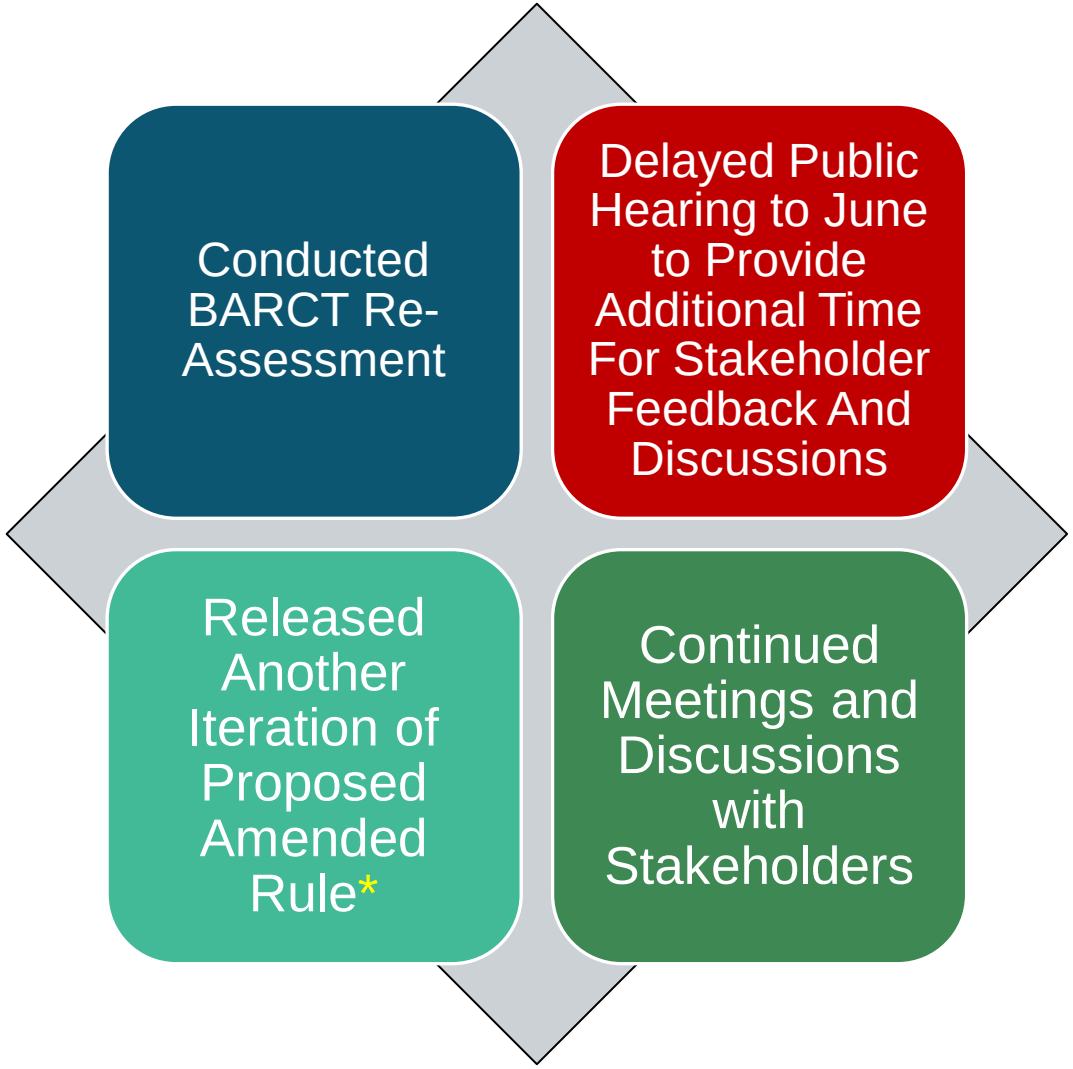
Webinar Meeting ID: 976 8636 4720

Agenda

- Summary of WGM #6
- Rule Development Progress & Updates
- Comment Letter
- BABBCO Presentation
- 2022 AQMP Cost-Effectiveness
- Estimated Electrical Impact of PAR 1153.1
- Status of Electrical Utility Upgrades
- Revised Draft Rule Language
- Next Steps

Summary of WGM #6

- Working Group Meeting #6 held on February 2, 2023
- Staff discussed:
  - 2022 Air Quality Management Plan (AQMP)
    - Emphasis on zero-emission to meet control measure goals
    - Revised cost-effectiveness threshold
  - BARCT re-assessment identifying zero emission NOx limits as BARCT in some categories
  - Initial rule concepts for zero-emission implementation



Rule Development Updates

* *In order for staff to incorporate stakeholder feedback in the Preliminary Draft PAR 1153.1, please submit any comments by March 10, 2023.*

Comment Letter Received

- Comment letter from Environmental Groups received on March 2, 2023, available on webpage*
- Key highlights:
  - Supports proposed zero-emission technologies
  - Grid capacity is important but is part of a broader discussion and not appropriate for small universe of commercial food ovens
  - Potential zero-emission offramp must be narrowly focused and done through public process
  - Future effect date of zero-emission standards should not be too far in the future
  - Supports adoption of rule, critical for RECLAIM transition

March 2, 2023

VIA ELECTRONIC MAIL ONLY

Michael Krause
Heather Farr
South Coast Air Quality Management District ("South Coast AQMD")
21865 Copley Dr.
Diamond Bar, CA 91765
mkrause@aqmd.gov
hfarr@aqmd.gov

Re: Proposed Rule 1153.1

Dear Mr. Krause and Ms. Farr:

On behalf of the undersigned organizations, we submit comments on the proposed amendments to Rule 1153.1. At the outset, we thank South Coast AQMD staff for taking the time and effort to reevaluate Best Available Retrofit Control Technology ("BARCT") for commercial ovens. It is encouraging to see a robust inclusion of zero-emission standards in line with the direction from the 2022 Air Quality Management Plan ("AQMP"). We look forward to continued engagement on this critical rule.

I. Commercial cooking is a prime place for electrification.

This is a perfect category to start advancing zero-emission technologies in the stationary source arena. We particularly appreciate reevaluating BARCT quickly. We encourage future rulemakings in the large combustion and commercial combustion categories to proceed with this speed in the coming years. We also appreciate places where South Coast AQMD identifies that

Page 1 of 6

* https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1153-1/coalition-comment-letter-re-proposed-rule-1153-1-final.pdf

BABBCO Presentation

JERRY BARNES

VICE PRESIDENT

BABBCO TUNNEL OVENS

(508).977.0600 X132

2022 Air Quality Management Plan (AQMP)

On December 2, 2022, the South Coast AQMD Governing Board adopted the 2022 AQMP

- Establishes a path for improving air quality and meeting federal air pollution standards by the year 2037
- 2022 AQMP is zero emissions focused plan
  - Aggressive push to zero emission technologies required across all sectors wherever feasible to meet stringent standards

Cost Effectiveness Threshold

- $325,000 per ton NOx reduction as a guide for rulemakings
  - Substantial increase from the $50,000 threshold adopted in the 2016 AQMP
- Derived based on a public health benefit-cost approach
  - Benefit-Cost approach is consistent with how U.S. EPA and CARB evaluate costs associated with development of their regulatory programs

U.S. EPA Monetized Public Health Benefit

- U.S. EPA established monetized public health benefit values for each state and across various sectors within each state
  - Determined using multiple air quality and health impact models
  - Based on health impacts resulting from increased exposure of ground-level ozone and fine particulate matter

https://www.epa.gov/system/files/documents/2021-10/source-apportionment-tsd-oct-2021_0.pdf

Applying the Health Benefit-Cost Approach to the Rule Development Process

AQMP threshold was established using a health benefit-cost approach

Rule development will conduct the cost effectiveness assessment following the California Health and Safety Code requirements for a BARCT Assessment

Cost Effectiveness Assessment: Health and Safety Code Section 40920.6 (a)(2)

Review the information developed to assess the cost-effectiveness of the potential control option. For purposes of this paragraph, "cost-effectiveness" means the cost, in dollars, of the potential control option divided by emission reduction potential, in tons, of the potential control option.

- Health and Safety code only requires staff to evaluate cost of potential control option
- Staff includes the direct and indirect costs of the control options the facilities will incur

PAR 1153.1 Cost Effectiveness Estimates

- Some cost effectiveness higher than the former $50,000 threshold but did not approach the $325,000 threshold
  - Cost-effectiveness ranged from $9,000 – $120,000

Cost Assessment Included

- Direct Facility Costs :
  - Costs for equipment (capital and installation)
  - Operating and Maintenance costs
  - Electrical upgrades/infrastructure at the facility

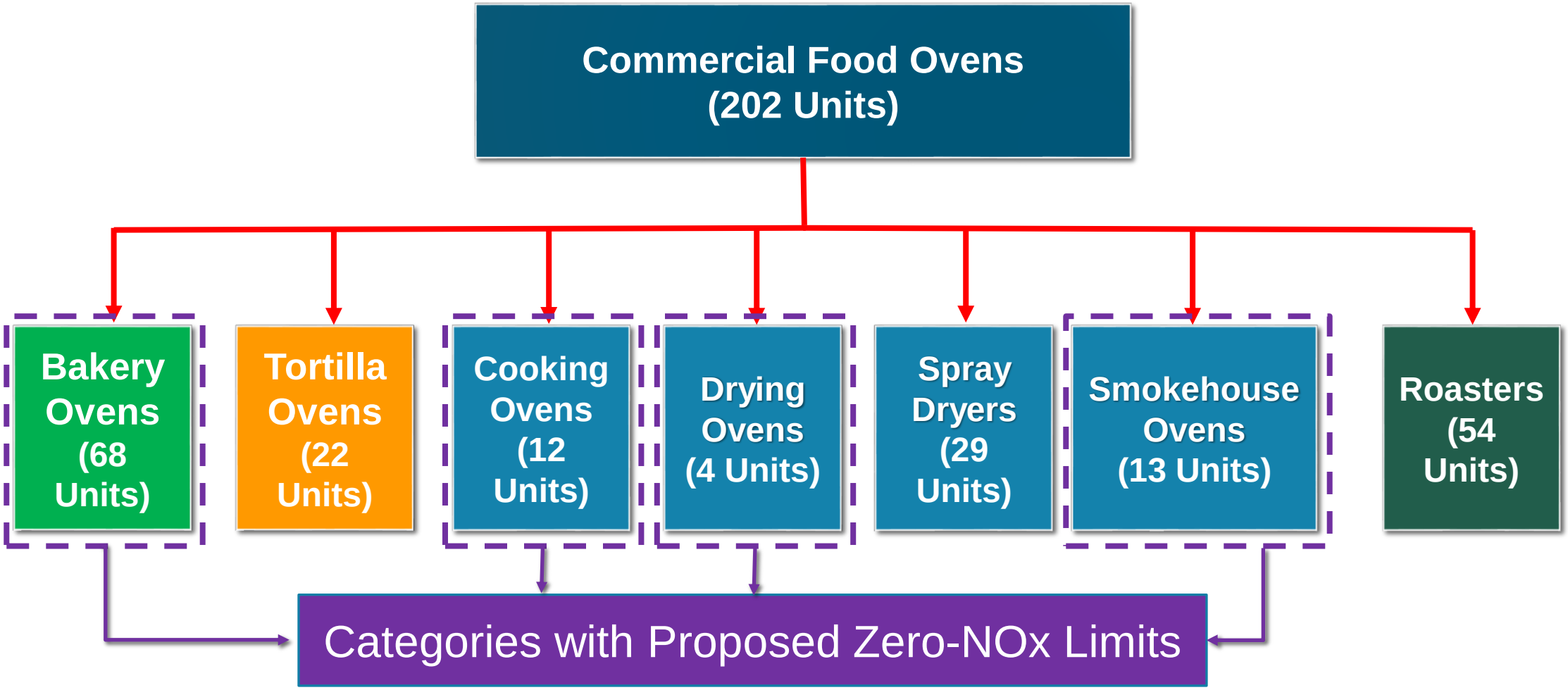
Cost Assessment Did Not Included

- Regional grid upgrades that may be needed to support electrifications
  - Rule only represents a small impact to the grid
  - ~97 units will require zero-emission technology
  - Impacts will be phased in over next 25 years (end of useful life)

Estimated Electrical Impact of PAR 1153.1

Revised

Overview of Commercial Food Oven Categories



Estimated Additional Power Demand from Zero Emission Commercial Food Ovens

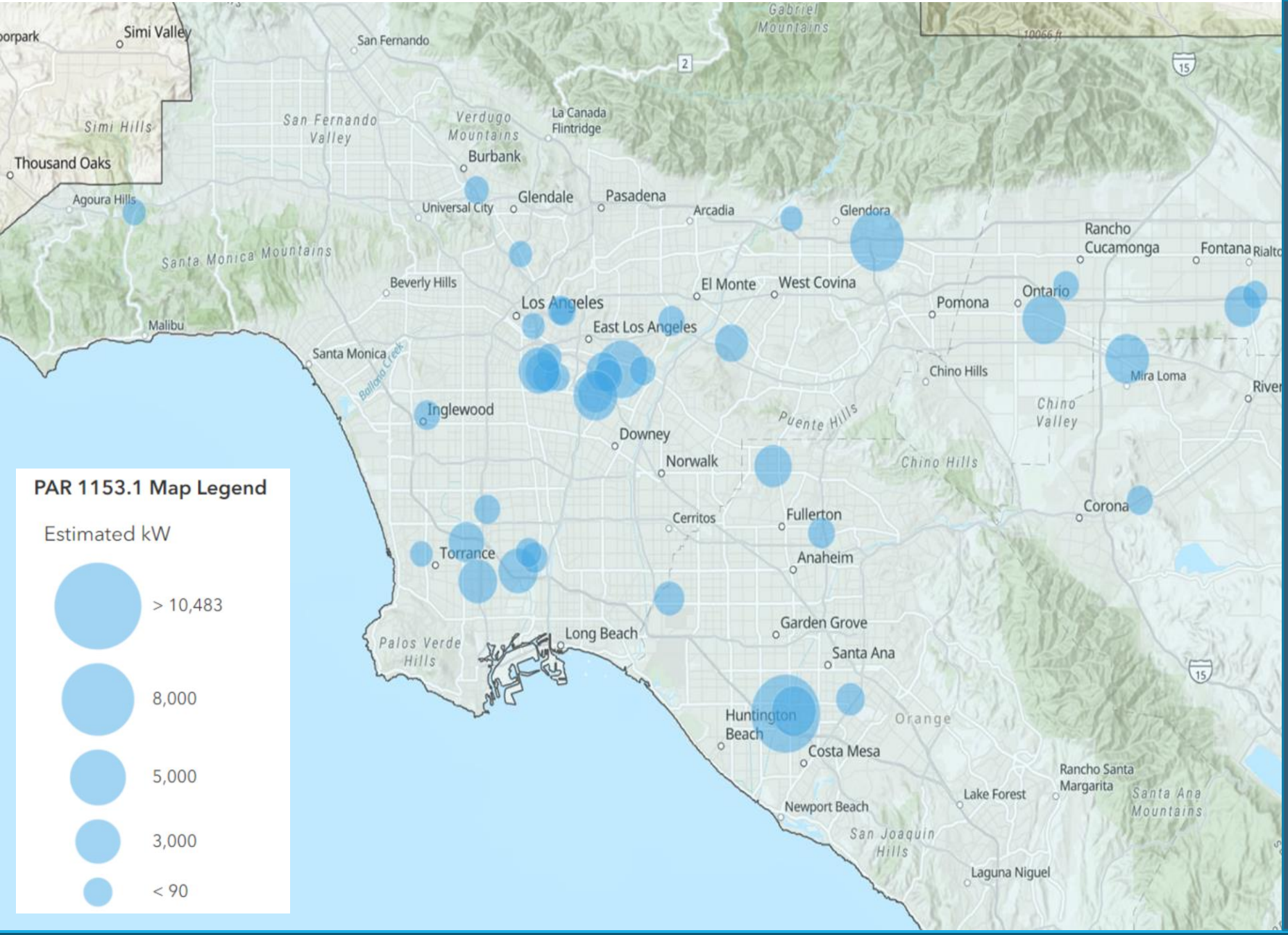
Equipment Categories	Proposed Zero Emission Standard	
	Number of Units	Estimated Maximum Power Demand
Bakery Ovens	68	70.8 MW*
Tortilla Ovens	N/A	
Cooking Ovens	12	16.5 MW*
Drying Ovens	4	5.9 MW*
Smokehouse Ovens	13	4.6 MW*
Spray Dryers	N/A	
Roasters	N/A	
Totals	97	90.3 MW*

*Converted from existing equipment's maximum rated heat input capacity in MMBtu/hr

Potential Increased Energy Demand from PAR 1153.1

	2021 Power Usage Gigawatt hours (GWh)
California	277,764*
South Coast AQMD	124,994^
PAR 1153.1	0.09▪
Percent Impact	0.00007%

* https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation
^ Estimated at 45% of California usage based on population
▪ Maximum GWh is all Units were run at full capacity simultaneously



Localized Impact from PAR 1153.1 Zero-Emission Units

- Map shows geographical location of impacted facilities
- Each circle represents a facility with applicable equipment categories for zero-emission
- Radius size indicates estimated energy demand for applicable equipment categories

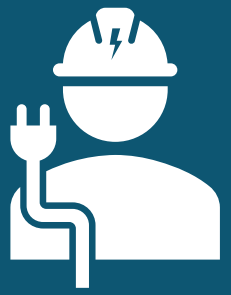
Staff Conclusions

Electrical impacts from PAR 1153.1 will be:

Minimal	Phased in over time	Spread through out region

Staff intends to conduct more in-depth studies on infrastructure needs when implementing zero emission technologies across all sectors

Status of Electric Utility Upgrades



Utility Side Electrical Upgrades

PAR 1153.1 accounted for facility electrical upgrades necessary to accommodate increase electrical demand

- Electrical upgrades at facility included in the cost-effective analysis

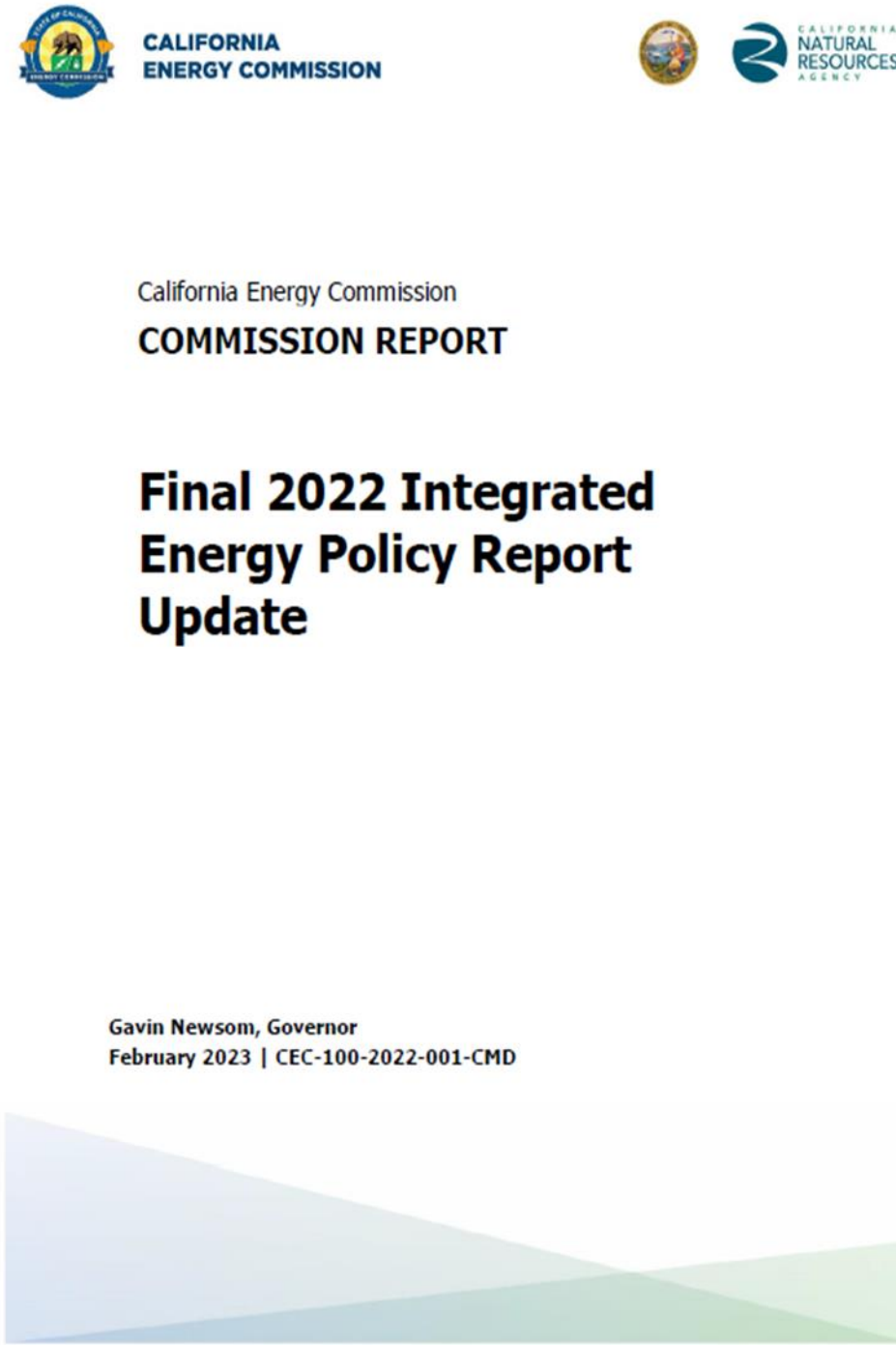
Utility side upgrades accounted for California Energy Commission (CEC) demand forecast

- Include forecasting demand for the region

2022 California Energy Commission Energy Demand Forecast

- CEC released 2022 Integrated Energy Policy Report which forecast statewide energy demand (Chapter 3)*
- Guides future California Public Utilities Commission (CPUC) energy procurement and CAL-ISO energy transmission capabilities
- Forecast considers:
  - Population growth and climate
  - Electrification standards
  - EV adoption
  - Battery storage
  - Renewables
    - Adoption of photovoltaic (solar panels) and other self-generating technologies

* 2022 Integrated Energy Policy Report Update (ca.gov)



2022 California Energy Commission Energy Demand Forecast (cont.)

- Forecast includes projected baseline electricity consumption:
  - Statewide baseline electricity consumption forecast includes approximated growth rate of 1.8% annually
    - ~360,000 GWh in 2035, up from 2021 demand of 280,000 GWh
  - Statewide electricity sales are forecasted to be greater than 290,000 GWh by 2035, annual growth rate of 1% through 2035
  - Peak energy demand forecasted at ~55,117 MW by 2035, annual growth of 1.3% through 2035
  - Photovoltaic generation is forecasted to reach 55,740 GWh by 2035, forecasted to grow by average 6% through 2035

2022 California Energy Commission Energy Demand Forecast (cont.)

- CEC considers impacts from California Air Resource Board's (CARB) State Implementation Plan (SIP)* in their forecast
  - Includes economic and energy impacts from zero-emission regulations that are expected to be adopted, at the air district level and statewide
- 2022 CARB SIP is a statewide planning document that identifies the strategies and controls under state authority to reduce ground-level ozone
  - Includes measures at the district level
  - Relies heavily on zero emission technologies, e.g., electric vehicles, building appliances, cooking equipment, etc.

* 2022 CARB State Strategy for State Implementation Plan

Summary of Second Preliminary Draft Rule Language

Released March 3, 2022

Rule Language Updates

Preliminary Draft Rule

- Updated NOx limits to reflect initial BARCT assessment
- Restructured and consolidated rule requirements Clarified language

16 Sep. 2022

3 Mar. 2023

Second Preliminary Draft Rule

- Updated NOx limits to reflect BARCT re-assessment
- Additional requirements to added to reflect re-assessment

Rule Structure Updates Overview

Preliminary Draft

- (a) Purpose
- (b) Applicability
- (c) Definitions
- (d) Requirements
- (e) Compliance Schedule
- (f) Burner Age
- (g) Source Test Requirements
- (h) Compliance by Certification
- (i) Demonstration of one pound or less of NOx per Day
- (j) Monitoring, Recordkeeping, and Reporting Requirements
- (k) Exemptions

Draft Second Preliminary Draft*

- (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 NOx per Day
- (j) Monitoring, Recordkeeping, and Reporting Requirements
- (k) Alternative Compliance Schedule Plan
- (l) Exemptions

* Subdivisions in red have new rule language changes from the Preliminary Draff Rule released in September

Purpose (a)

- Deleted **“gaseous and liquid fuel fired combustion equipment”** since rule will be applicable to zero-emission ovens (e.g., electric ovens)

(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.

Applicability (b)

- Deleted **"emissions from fuel combustion"** since rule will be applicable to zero-emission ovens (e.g., electric ovens)
- Deleted **"that require South Coast AQMD permit"** since units will not require a permit condition limiting NOx emissions to zero ppm
  - Units may be required to have VOC permit limits pursuant to Rule 1153

(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~~South Coast AQMD~~) 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).~~

New Definitions (c)

(1) ALTERNATIVE COMPLIANCE SCHEDULE PLAN means an alternative implementation plan for an owner or operator of a facility with Units subject to Phase II Emission Limits.

- Staff is proposing an option for facilities to submit a compliance plan for an alternative implementation schedule if there are constraints beyond the facility's control
  - Details presented in subsequent slides

(4) COMMERCIAL FOOD OVEN means a device used to heat, cook, dry, or prepare food or products for making beverages for human consumption.

- "Commercial" added to "Food Ovens" throughout rule for clarity

New Definitions (c) (*cont.*)

(46) ~~DRYER~~ DRYING OVEN means a cooking device or chamber used to remove water or moisture to dry food products.~~, or where liquids are atomized and dried into powder form by spraying the liquid feed into a heated chamber.~~

(22) SPRAY DRYER means a Unit where liquids are atomized and dried into powder form by spraying the liquid feed into a heated chamber.

- Bifurcated definition for Drying Ovens and Spray Dryers
- BARCT re-assessment separated categories with different proposed NOx and CO emission limit

(~~16~~19) ROASTER means ~~an~~ a Unit ~~oven~~ used to dry roast food products that include, but are not limited to, nuts, coffee beans, or other plant seeds.~~ ROASTER~~ Roasters include~~s coffee roasting units~~ Units with an integrated afterburner which consists of a single burner used as the heat source for the afterburner and Roaster.~~ that is the only heat source, which also provides heat to roast the coffee beans.~~

- Clarified Roaster definition

New Definitions (c) (*cont.*)

(14) PHASE I EMISSION LIMITS means the NOx and CO emission limits specified in Table 1.

(15) PHASE II EMISSION LIMITS means the NOx emission limits specified in Table 1, when applicable.

- PAR 1153.1 includes two NOx limits identified as BARCT
  - NOx limits identified as BARCT upon rule adoption, zero ppm NOx limits that will be BARCT at a future effective date
- Terms “Phase I Emission Limits” and “Phase II Emission Limits” added to simplify and streamline rule requirements

Requirements (d)

- Table 1 updated to Phase I and Phase II limits that reflect BARCT
  - Phase I Emission Limits: Combustion-based limits identified as BARCT upon rule adoption
  - Phase II Emission Limits: Zero-emission limits identified as BARCT by January 1, 2027 for applicable categories

Table 1 – NOx and CO Emission Limits

Equipment Categories	Phase I Emission Limit[1]		Phase II Emission Limit[2]	
	NOx	CO (ppmv)	NOx (ppmv)	CO (ppmv)
Bakery Ovens	30 ppmv or 0.036 lb/MMBtu	800	0	0
Tortilla Ovens	30 ppmv or 0.036 lb/MMBtu	800	N/A	N/A
Tortilla Ovens (heated solely by Infrared Burners)	15 ppmv or 0.018 lb/MMBtu	800	N/A	N/A
Cooking Ovens	30 ppmv or 0.036 lb/MMBtu	800	0	0
Drying Ovens	30 ppmv or 0.036 lb/MMBtu	800	0	0
Smokehouses	30 ppmv or 0.036 lb/MMBtu	800	0	0
Spray Dryers	30 ppmv or 0.036 lb/MMBtu	800	N/A	N/A
Roasters	30 ppmv or 0.036 lb/MMBtu	800	N/A	N/A

[1] Phase I Emission Limits apply on and after [*Date of Adoption*]

[2] Phase II Emission Limits, when applicable, apply on and after January 1, 2027

Requirements (d)

- Modified paragraph (d)(4) to include different Decommissioning compliance schedules for Phase I and Phase II Emission Limits
- Moved the requirement to decommission a unit from the compliance schedule subdivision to the requirements subdivision

Revised

Paragraph (d)(4)

(4) Decommissioned Unit(s)

~~In lieu of complying with the Table 1 emission limits, a~~ An owner or operator of a Unit may elect to Decommission a Unit in lieu of reducing emissions to comply with Table 1 emission limits to pursuant to the schedule in paragraph (e)(5) for Phase I Emission Limits or pursuant to the schedule in subparagraph (e)(2)(A) for Phase II 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.

Phase II Emission Limits

- January 1, 2027 future effective date will allow:
  - Time for technology to mature
  - Time for facilities to test and adjust products to maintain product quality

Compliance Schedule (e)

- Paragraph (e)(2) establishes compliance schedule for Phase II Emission Limits
- Compliance schedule based on unit age and replacement
- Effective January 1, 2027, if a unit is 22 years old or older and required to submit permit application by July 1, 2027
- Any unit that becomes 22 years old after January 1, 2027, required to submit a permit application by July 1 the year the unit reaches 22 years of age

Paragraph (e)(2)

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

(A) Decommission each Unit with a NOx emission limit that exceeds the Phase II Emission Limit pursuant to paragraph (d)(4):

(i) On or before July 1, 2027, for any Unit where the Unit age is 25 years or older, as determined pursuant to paragraph (f)(2), as of January 1, 2027; or

(ii) On or before July 1 of the year when a Unit's age reaches 25 years, as determined pursuant to paragraph (f)(2), by January 1 of that calendar year; or

(B) Submit an application to modify an existing permit for each Unit to limit the NOx and CO emission to a level not to exceed the Phase II Emission Limits:

(i) On or before July 1, 2027, for any Unit where the Unit age is 22 years or older, as determined pursuant to paragraph (f)(2), as of January 1, 2027; or

(ii) On or before July 1 of the year when a Unit's age reaches 22 years, as determined pursuant to paragraph (f)(2), by January 1 of that calendar year; and

Compliance Schedule (e)

- Staff is proposing an alternative compliance option for facilities with units subject to a Phase II Emission Limit
- If Utility provider cannot provide the necessary power to supply a unit required to comply with a Phase II limit according to the implementation schedule in the rule, the facility can request an alternative compliance schedule
- Submittal requirements and approval process specified in subdivision (k)

Paragraph (e)(3)

(3) Alternative Compliance Schedule for Units with a Phase II Emission Limit An owner or operator of a Unit that is required to meet the Phase II Emission Limit in Table 1 who can demonstrate to the Executive Officer that their utility company cannot provide the necessary power to the facility required to supply the zero ppmv Unit within the compliance schedule pursuant to paragraph (e)(2), shall submit an Alternative Compliance Schedule Plan pursuant to the requirements in subdivision (k).

Compliance Schedule (e)

- Moved decommission requirement for a unit to the subdivision (d)

Paragraph (e)(5)

(~~3~~5) An owner or operator that elects to Decommission a Unit in lieu of complying with Phase I Emission Limits pursuant to paragraph (d)(4) shall Decommission the Unit no later than 30 months after the applicable permit application submittal date pursuant to ~~subdivision~~paragraph (e)(1). ~~and, by that date:~~

~~(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.~~

Equipment Age (f)

- Formerly “Burner Age”
- Expanded to include Unit replacement
  - Phase II Emission Limits will likely require unit replacement, not retrofit
- Establishes how the age of the unit will be determined

Paragraph (f)(2)

(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 the 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 paragraph (f)(2).

Source Test Requirements (g)

(~~dg~~) ~~Compliance Determination~~Source Test Requirements for Units subject to Phase I Emission Limits

(1) An owner or operator of a Unit(s) subject to Phase I Emission Limits shall conduct simultaneous source tests for NOx and CO, averaged over a period of at least 15 and no more than 60 consecutive minutes, to demonstrate compliance with the applicable NOx and CO emission limits in Table 1.

- Phase I Emission Limits are combustion-based limits which will require source test to demonstrate compliance
- Phase II Emission Limits are based electric ovens with no NOx emissions
- Source test requirements will only be applicable to units with Phase I Emission Limits

New Monitoring, Recordkeeping, and Reporting Requirements (j)

- Facilities with units subject to Phase II Emission Limits will be required to report:
  - Unit age
    - This will assist for planning purposes
  - Any potential delays anticipated by the utility provider
    - Requires facility to reach out to utility company when unit is 17 years of age

Paragraph (j)(2)

(2) An owner or operator of a Unit that will be 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 Phase II Emission Limits; and

(ii) The estimated timeframe required from the utility company to complete the service upgrades.

40

Alternative Compliance Schedule Plan (k)

- Establishes requirements for facilities that need an extended 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 Emission Limits may submit an Alternative Compliance Schedule Plan no later than 180 days prior to the compliance schedule in paragraph (e)(2) 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.

Alternative Compliance Schedule Plan (k)(2) to (k)(9)

- Establishes Approval process for Alternative Compliance Schedule Plan
- Provision specifies:
  - How facility will be notified
  - Date unit(s) must be decommissioned
  - Disapproval process
  - Modifications to plans
  - Plan Fees

(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 180 days prior to the compliance schedule in paragraph (e)(2), and

(B) The Alternative Compliance Schedule Plan includes all of the required information in paragraph (k)(1).

(9) 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.

Exemption (l)

Subparagraph (l)(1)(F)

(F) Units with a Rated Heat Input Capacity less than 325,000 Btu per hour pursuant to paragraph (j)(4).

- Originally located in demonstration of one pound per day or less
- Moved to exemptions to align with other rule requirements

Paragraph (l)(2)

(2) The provisions of paragraph (e)(2) and subdivision (j) shall not apply to an owner or operator of a Unit with NOx and CO emission not exceeding the Phase II Emission Limits upon [*Date of Rule Adoption*].

- Units subject to Phase II Emission Limits are not subject to recording, recordkeeping, and permitting requirements of PAR 1153.1 since there are no emissions associated with zero-emission units
- Unit's may be subject to VOC emissions requirements of Rule 1153

Exemption (l)

Paragraph (l)(1)(B)

~~(CB) Units regulated under Regulation XX, until the facility becomes a Former RECLAIM Facility;~~

- Removed exemption, PAR 1153.1 is a landing rule part of the RECLAIM transition
- Rule is applicable to units located at both RECLAIM and non-RECLAIM facilities

Exemption (l)

Paragraph (l)(2)

~~(2) The owner or operator of a Bakery Oven installed prior to [*Date of Rule Adoption*] shall not be subject to the applicable NOx Emission Limits in Table 1, provided the owner or operator submits a complete permit application for a permit condition that limits the NOx to 35 ppmv and the CO emissions to 800 ppmv according to the schedule in paragraph (e)(4) and the Unit:~~

~~(A) Does not have an existing permit condition limiting the NOx emissions to 30 ppmv or less;~~

~~(B) Is not operating at 30 ppmv or less; and~~

~~(C) Is not operating above 40 ppmv NOx.~~

- Formerly paragraph (k)(2)
- Removed exemption because it is not necessary:
  - Unit will be subject to RECLAIM requirements while under RECLAIM
  - If facility becomes a former RECLAIM facility before burner/unit replacement, unit will be subject to interim limit
  - If burners are replaced before January 1, 2027 (Phase II Emission Limits) then will have to meet 30 ppm

Compliance Schedule Examples

PAR 1153.1 Emissions Limits

Interim NOx Limits	Phase I Emission Limits	Phase II Emission Limits
Serves as a cap to prevent backsliding if a facility exits RECLAIM before effective date of rule emission limits	BARCT limits applicable upon rule adoption	BARCT limits applicable after January 1, 2027

Revised Compliance Schedule

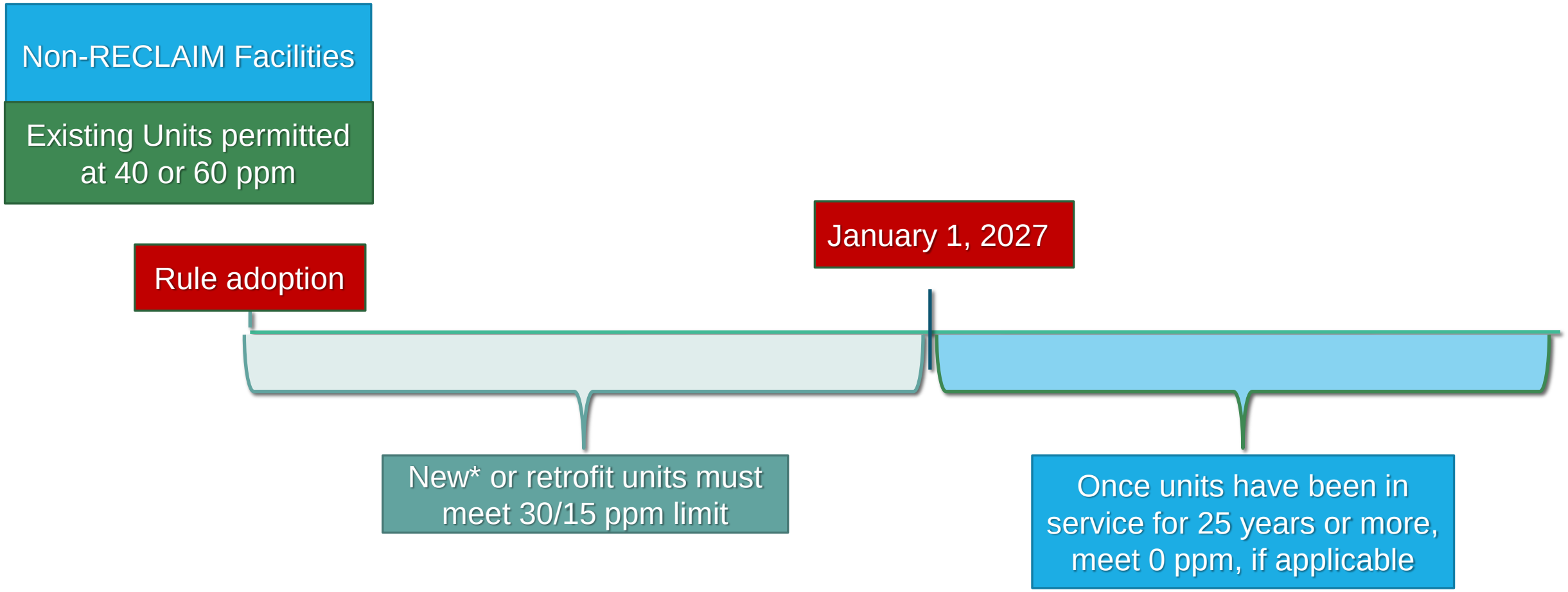
Phase I Emission Limits

- Required when burners reach 22 years of service life or when burners are replaced
- Facilities must submit permit application to limit NOx to Phase I Emission Limit

Phase II Emission Limits

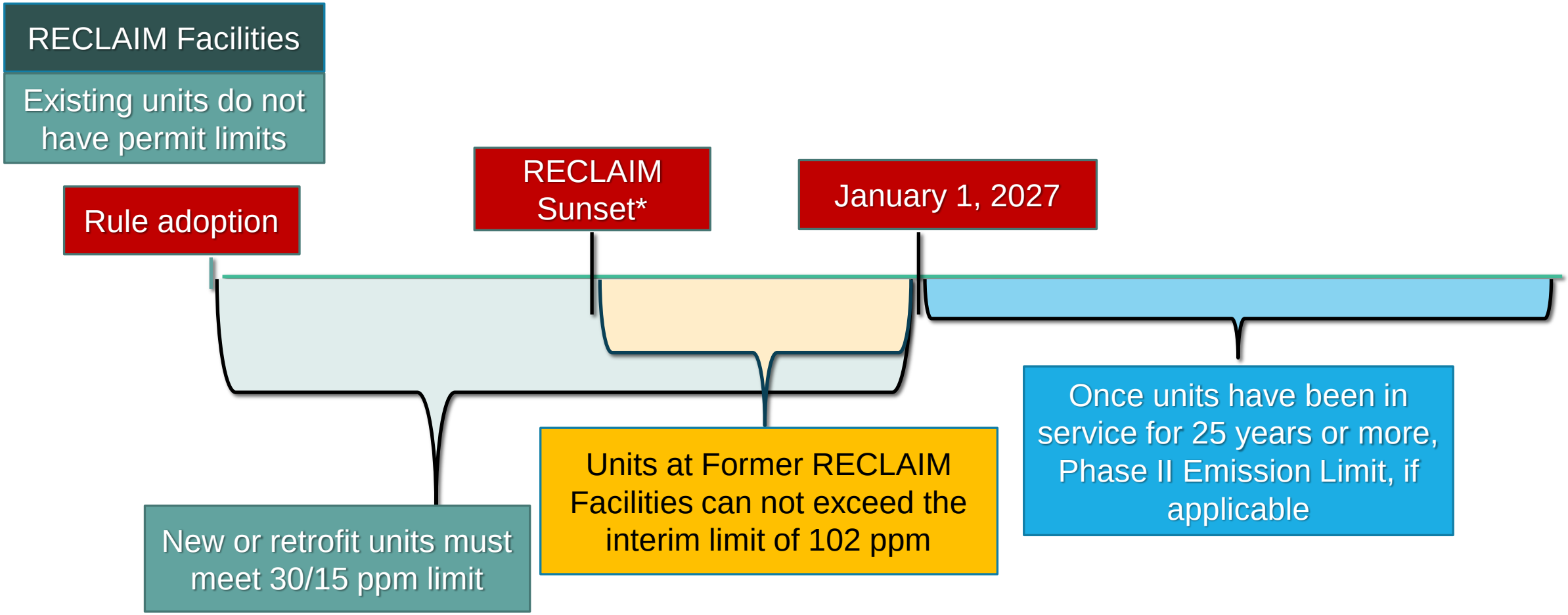
- Effective after January 1, 2027
- Required when units reach 22 years of service life or when units are replaced
- Facilities must decommission unit – compliance schedule is not tied to permit submittal

Compliance Schedule for non-RECLAIM Facilities



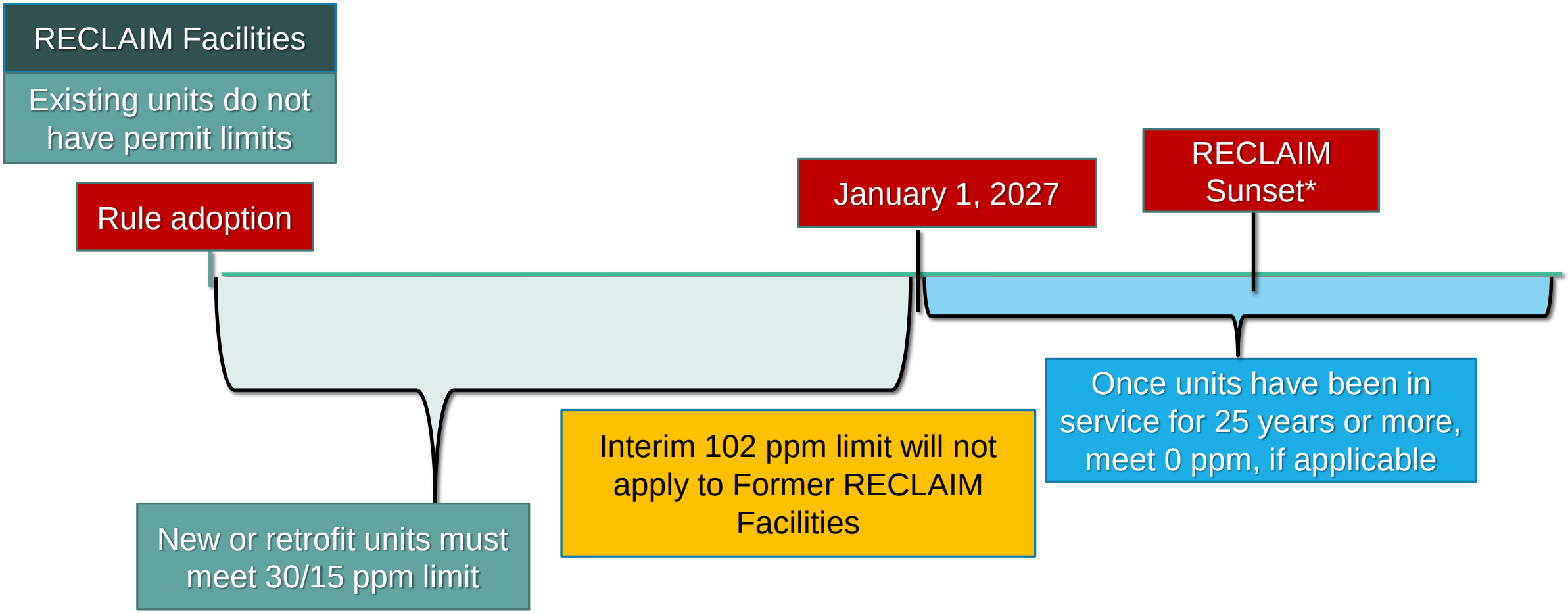
* BACT will apply to new units

Implementation Schedule For RECLAIM Facilities*



*If RECLAIM Sunset occurs before Rule 1153.1 Future Effective Date

Implementation Schedule For RECLAIM Facilities*



*If RECLAIM Sunset occurs after Rule 1153.1 Future Effective Date

Technology Check-In

- Propose a technology check-in prior to future effective date to assess:
  - Categories with proposed zero-emission limit
  - Categories where zero-emissions technology was not available
- The technology check-in will be included as part of the Resolution included with the Governing Board Package such as:

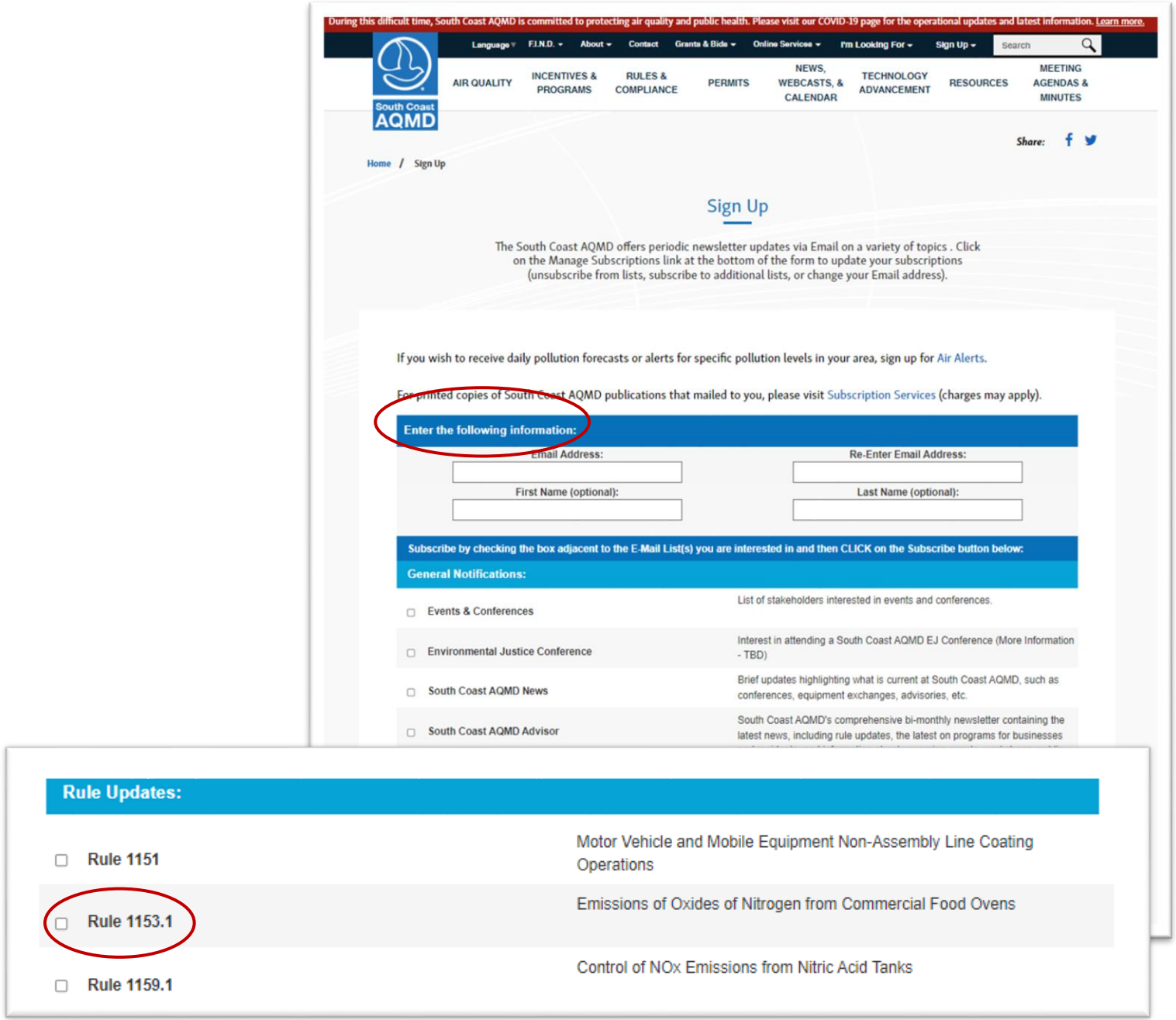
> "***BE IT FURTHER RESOLVED***, *that the South Coast AQMD Governing Board directs staff to report on the status of the zero-emission technologies for applicable categories within 24 months of rule adoption and conduct a technology assessment if there are potential challenges for any equipment category; and amend the requirements through the public process for applicable equipment categories if deemed appropriate*"

Next Steps

- Continue Stakeholder Meetings
- Release Preliminary Draft Staff Report and Rule Language
- Public Workshop
- Stationary Source Committee
- Public Hearing June 2023

Receiving PAR 1153.1 Updates

- To receive email updates, sign up at South Coast AQMD sign up page *http://www.aqmd.gov/sign-up*
- Enter email address and name
- Subscribe by scrolling down to “Rule Updates” and check the box for Rule 1153.1 and click on the subscribe button at bottom of page
- Future meeting notices, links to documents, and any updates will be sent via email



Staff 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

Chris Bradley
Air Quality Specialist
cbradley@aqmd.gov
909.396.2185