



BOARD OF DIRECTORS  
STATIONARY SOURCE COMMITTEE  
April 9, 2025

COMMITTEE MEMBERS

KEN CARLSON- CHAIR  
DIONNE ADAMS  
JOHN GIOIA  
GABE QUINTO  
STEVE YOUNG

LYNDA HOPKINS – VICE CHAIR  
BRIAN COLBERT  
RICO MEDINA  
LENA TAM

MEETING LOCATION(S) FOR IN-PERSON ATTENDANCE BY  
COMMITTEE MEMBERS AND MEMBERS OF THE PUBLIC

Bay Area Metro Center  
1st Floor Yerba Buena Room  
375 Beale Street  
San Francisco, CA 94105

Office of Contra Costa County  
Supervisor John Gioia  
Conference Room  
11780 San Pablo Ave., Suite D  
El Cerrito, CA 94530

Santa Rosa Junior College Campus  
Doyle Library, Room 148  
1501 Mendocino Ave.  
Santa Rosa, CA, 95401

Pittsburg City Hall - 301A City Manager's  
Office Mayor/Council Conference Room  
65 Civic Ave - 3rd Floor  
Pittsburg, California 94565

Alameda County Board of Supervisors  
District 3  
Office of Supervisor Lena Tam  
101 Callan Ave., Suite #103  
San Leandro, CA 94577

THE FOLLOWING STREAMING OPTIONS WILL ALSO BE PROVIDED

These streaming options are provided for convenience only. In the event that streaming connections malfunction for any reason, the Stationary Source Committee reserves the right to conduct the meeting without remote webcast and/or Zoom access.

The public may observe this meeting through the webcast by clicking the link available on the air district's agenda webpage at [www.baaqmd.gov/bodagendas](http://www.baaqmd.gov/bodagendas).

Members of the public may participate remotely via Zoom at <https://bayareametro.zoom.us/j/88524841041>, or may join Zoom by phone by dialing (669) 900-6833 or (408) 638-0968. The Webinar ID for this meeting is: 885 2484 1041

Public Comment on Agenda Items: The public may comment on each item on the agenda as the item is taken up. Members of the public who wish to speak on a matter on the agenda will have two minutes each to address the Committee on that agenda item, unless a different time limit is established by the Chair. No speaker who has already spoken on an item will be entitled to speak to that item again.

The Committee welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Committee. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Committee meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Committee meetings.

Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is *per se* disruptive to a meeting and will not be tolerated.

# STATIONARY SOURCE COMMITTEE MEETING AGENDA

WEDNESDAY, APRIL 9, 2025  
10:00 AM

Chairperson, Ken Carlson

1. Call to Order - Roll Call

*The Committee Chair shall call the meeting to order and the Clerk of the Boards shall take roll of the Committee members.*

2. Pledge of Allegiance

CONSENT CALENDAR (Item 3)

*The Consent Calendar consists of routine items that may be approved together as a group by one action of the Committee. Any Committee member or member of the public may request that an item be removed and considered separately.*

3. Approval of the Draft Minutes of the Stationary Source Committee Meeting of March 12, 2025

*The Committee will consider approving the Draft Minutes of the Stationary Source Committee Meeting of March 12, 2025.*

INFORMATIONAL ITEM(S)

4. Refinery Flaring Minimization Overview

*The Committee will discuss rule development efforts to support Strategy 1.3: Minimize Flaring of the Air District's 2024-2029 Strategic Plan including current and future steps toward amending Regulation 12, Rule 11: Flare Monitoring at Refineries and Regulation 12, Rule 12: Flares at Refineries. This item will be presented by Robert Cave, Senior Air Quality Engineer in the Rules and Strategic Policy Division.*

5. Potential Amendments to Rule 9-6

*The Committee will discuss potential pathways for rule amendments to Regulation 9, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Water Heaters. Future amendments would be focused on providing compliance flexibility for challenging installation cases as discussed in the December 4, 2024 Board of Directors meeting. This item will be presented by Jennifer Lam, Assistant Manager in the Rules and Strategic Policy Division.*

**OTHER BUSINESS**

6. Public Comment on Non-Agenda Matters

*Pursuant to Government Code Section 54954.3, members of the public who wish to speak on matters not on the agenda will be given an opportunity to address the Committee. Members of the public will have two minutes each to address the Committee, unless a different time limit is established by the Chair. The Committee welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Committee. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Committee meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Committee meetings. Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is per se disruptive to a meeting and will not be tolerated.*

7. Committee Member Comments

*Any member of the Committee, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2)*

8. Time and Place of Next Meeting

*Wednesday, May 14, 2025, at 10:00 a.m. at 375 Beale Street, San Francisco, CA 94105. The meeting will be in-person for the Stationary Source Committee members and members of the public will be able to either join in-person or via webcast.*

9. Adjournment

*The Committee meeting shall be adjourned by the Chair.*

**CONTACT:**

**MANAGER, EXECUTIVE OPERATIONS**  
375 BEALE STREET, SAN FRANCISCO, CA 94105  
[vjohnson@baaqmd.gov](mailto:vjohnson@baaqmd.gov)

(415) 749-4941  
FAX: (415) 928-8560  
BAAQMD homepage:  
[www.baaqmd.gov](http://www.baaqmd.gov)

- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's offices at 375 Beale Street, Suite 600, San Francisco, CA 94105, at the time such writing is made available to all, or a majority of all, members of that body.

**Accessibility and Non-Discrimination Policy**

The Bay Area Air District (Air District) does not discriminate on the basis of race, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, color, genetic information, medical condition, or mental or physical disability, or any other attribute or belief protected by law.

It is the Air District's policy to provide fair and equal access to the benefits of a program or activity administered by Air District. The Air District will not tolerate discrimination against any person(s) seeking to participate in, or receive the benefits of, any program or activity offered or conducted by the Air District. Members of the public who believe they or others were unlawfully denied full and equal access to an Air District program or activity may file a discrimination complaint under this policy. This non-discrimination policy also applies to other people or entities affiliated with Air District, including contractors or grantees that the Air District utilizes to provide benefits and services to members of the public.

Auxiliary aids and services including, for example, qualified interpreters and/or listening devices, to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication or an equal opportunity to participate fully in the benefits, activities, programs and services will be provided by the Air District in a timely manner and in such a way as to protect the privacy and independence of the individual. Please contact the Non-Discrimination Coordinator identified below at least three days in advance of a meeting so that arrangements can be made accordingly.

If you believe discrimination has occurred with respect to an Air District program or activity, you may contact the Non-Discrimination Coordinator identified below or visit our website at [www.baaqmd.gov/accessibility](http://www.baaqmd.gov/accessibility) to learn how and where to file a complaint of discrimination.

Questions regarding this Policy should be directed to the Air District's Non-Discrimination Coordinator, Diana Ruiz, Acting Environmental Justice and Community Engagement Officer, at (415) 749-8840 or by email at [druiz@baaqmd.gov](mailto:druiz@baaqmd.gov)

**BAY AREA AIR DISTRICT  
375 BEALE STREET, SAN FRANCISCO, CA 94105  
FOR QUESTIONS PLEASE CALL (415) 749-4941**

**EXECUTIVE OFFICE:  
MONTHLY CALENDAR OF AIR DISTRICT MEETINGS**

**APRIL 2025**

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Stationary Source Committee	Wednesday	9	10:00 a.m.	1 <sup>st</sup> Floor, Yerba Buena Room
Board of Directors Community Equity, Health, and Justice Committee	Wednesday	9	1:00 p.m.	1 <sup>st</sup> Floor, Yerba Buena Room
Board of Directors Policy, Grants, and Technology Committee	Wednesday	16	10:00 a.m.	1 <sup>st</sup> Floor Board Room
Board of Directors Finance and Administration Committee	Wednesday	16	10:00 a.m.	1 <sup>st</sup> Floor Board Room

**MAY 2025**

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Special Meeting Budget Hearing	Wednesday	7	9:00 a.m.	1 <sup>st</sup> Floor Board Room
Board of Directors Meeting	Wednesday	7	10:00 a.m.	1 <sup>st</sup> Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	14	10:00 a.m.	1 <sup>st</sup> Floor, Yerba Buena Room
Board of Directors Community Equity, Health and Justice Committee	Wednesday	14	1:00 p.m.	1 <sup>st</sup> Floor, Yerba Buena Room
Board of Directors Community Advisory Council Retreat	Friday Saturday	16 17	6:00 p.m. 8:00 a.m.	Holiday Inn San Jose (San Jose Ballroom) Silicon Valley 1350 North 1st St. San Jose, CA 95112
Board of Directors Policy, Grants and Technology Committee	Wednesday	21	10:00 a.m.	1 <sup>st</sup> Floor Board Room
Board of Directors Finance and Administration Committee	Wednesday	21	1:00 p.m.	1 <sup>st</sup> Floor Board Room

**BAY AREA AIR DISTRICT**  
Memorandum

To: Chairperson Ken Carlson and Members  
of the Stationary Source Committee

From: Philip M. Fine  
Executive Officer/APCO

Date: April 9, 2025

Re: Approval of the Draft Minutes of the Stationary Source Committee  
Meeting of March 12, 2025

RECOMMENDED ACTION

Approve the Draft Minutes of the Stationary Source Committee Meeting of March 12, 2025.

BACKGROUND

None.

DISCUSSION

Attached for your review and approval are the Draft Minutes of the Stationary Source Committee Meeting of March 12, 2025.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine  
Executive Officer/APCO

Prepared by: Marcy Hiratzka  
Reviewed by: Vanessa Johnson



ATTACHMENT(S):

1. Draft Minutes of the Stationary Source Committee Meeting of March 12, 2025

Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, CA 94105  
(415) 749-5073

Stationary Source Committee Meeting  
Wednesday, March 12, 2025

## **DRAFT MINUTES**

*This meeting was webcast, and a video recording is available on the website of the Bay Area Air Quality Management District at [www.baaqmd.gov/bodagendas](http://www.baaqmd.gov/bodagendas)*

### **CALL TO ORDER**

1. **Opening Comments:** Stationary Source Committee (Committee) Chairperson, Ken Carlson, called the meeting to order at 10:01 a.m.

#### **Roll Call:**

Present, In-Person (Bay Area Metro Center, 375 Beale Street, 1<sup>st</sup> Floor Yerba Buena Room, San Francisco, California, 94105): Chairperson Ken Carlson; and Directors. John Gioia, and Rico Medina.

Present, In-Person Satellite Location: (Office of Contra Costa County Supervisor John Gioia, 11780 San Pablo Ave., Suite D Conference Room, El Cerrito, CA 94530): Director Steve Young.

Present, In-Person Satellite Location: (Office of Alameda County Supervisor Lena Tam, 103 Callan Ave., Suite #103, San Leandro, CA 94577): Director Lena Tam.

Present, In-Person Satellite Location: (Santa Rosa Junior College Campus, Doyle Library, Room 148, 1501 Mendocino Ave., Santa Rosa, CA 95401): Vice Chairperson Lynda Hopkins.

Present, In-Person Satellite Location: (Office of Marin County Supervisor Brian Colbert, 3501 Civic Center Drive, Suite 326, San Rafael, CA 94903): Director Brian Colbert.

Present, In-Person Satellite Location: (Pittsburg City Hall, 301A City Manager's Office, Mayor/Council Conference Room, 65 Civic Ave. – 3rd Floor, Pittsburg, CA 94565): Director Dionne Adams.

Absent: Director Gabe Quinto.

2. **PLEDGE OF ALLEGIANCE**

## **CONSENT CALENDAR**

### **3. APPROVAL OF THE DRAFT MINUTES OF THE STATIONARY SOURCE COMMITTEE MEETING OF FEBRUARY 19, 2025**

#### Public Comments

No requests received.

#### Committee Comments

None.

#### Committee Action

Director Gioia made a motion, seconded by Director Tam, to **approve** the Draft Minutes of the Stationary Source Committee meeting of February 19, 2025; and the motion **carried** by the following vote of the Committee:

AYES: Adams, Carlson, Colbert, Gioia, Hopkins, Tam, Young.  
NOES: None.  
ABSTAIN: None.  
ABSENT: Medina, Quinto.

## **INFORMATIONAL ITEMS**

### **4. WAREHOUSE INDIRECT SOURCE RULE (ISR) CONSIDERATIONS**

Christopher Easter, Senior Air Quality Specialist, gave the staff presentation *Warehouse Indirect Source Rule Considerations*, including: outline; background; Goods Movement background; growth in electronic commerce (e-commerce); warehouses in the Bay Area; ISRs in other California air districts; warehouses greater than 100,000 square feet; potential nitrogen oxides (NOx) and Particulate Matter (PM) reductions in the Bay Area; relevant regulatory activities; and considerations for next steps.

#### Public Comments

Public comments were given by Jan Warren, Interfaith Climate Action Network of Contra Costa County; Mars Keith, Sierra Club; and Sarah Chen Small, Communities for a Better Environment.

#### Committee Comments

The Committee and staff discussed the request for a chart that shows estimated benefits (including reductions in PM<sub>2.5</sub> emissions) for those living on the fenceline of indirect sources; facilities that are anticipated to be impacted (warehouses, rail, or ports); the fact that California has withdrawn its request for a waiver and authorization for the addition of the Advanced Clean Fleets Regulation to its emissions control program; whether both new and existing

warehouses are being considered; whether the South Coast Air Quality Management District partnered with existing warehouses when they developed their ISR; concerns about expending staff resources, time, and money on this potential rulemaking during a time of federal uncertainty, as well as reasons to proceed now; the development and current status of the North Richmond FedEx distribution center that was designed to have zero truck emissions within five years of operation; how to prioritize this rule with other rulemakings (which can be achieved first with the least amount of effort); the desire for the Air District to provide model land use provisions when cities and counties permit new facilities; and the desire to incorporate this potential rulemaking into future budget discussions.

NOTED PRESENT: Director Medina was noted present at 10:24 a.m.

#### Committee Action

No action taken.

### **5. STRATEGIC PLAN RULE DEVELOPMENT SCHEDULE**

Victor Douglas, Director of Rules and Strategic Policy, gave the staff presentation *Strategic Plan Rule Development Schedule*, including: outline; background; Strategic Plan goals; Strategic Plan goals and strategies; current and planned rule development; considered rule development; other potential rule development efforts; prioritization criteria; and next steps.

#### Public Comments

Public comments were given by Tony Fisher, Coalition for Clean Air; Vanessa Rivas Villanueva, Earthjustice; Sameer Ameen; Jan Warren, Interfaith Climate Action Network of Contra Costa County; Dr. Stephen Rosenblum, Palo Alto resident; and Jacob Klein, Industrious Labs.

#### Committee Comments

The Committee and staff discussed the desire for quicker impacts from the Air District's rulemakings; whether there are flaring rules in a settlement with Chevron; the request that future presentations show anticipated benefits associated with each proposed rulemaking, as well as the current status of each rule; the suggestion of prioritizing rulemakings that would address facilities with the greatest health burden on the community; and the desire for improved metrics for the Air District's rules.

#### Committee Action

No action taken.

### **OTHER BUSINESS**

### **6. PUBLIC COMMENT ON NON-AGENDA MATTERS**

No requests received.

**7. COMMITTEE MEMBER COMMENTS**

None.

**8. TIME AND PLACE OF NEXT MEETING**

Wednesday, April 9, 2025, at 10:00 a.m. at 375 Beale Street, San Francisco, CA 94105. The meeting will be in-person for the Stationary Source Committee members and members of the public will be able to either join in-person or via webcast.

**9. ADJOURNMENT**

The meeting was adjourned at 11:24 p.m.

Marcy Hiratzka  
Clerk of the Board

**BAY AREA AIR DISTRICT**  
Memorandum

To: Chairperson Ken Carlson and Members  
of the Stationary Source Committee

From: Philip M. Fine  
Executive Officer/APCO

Date: April 9, 2025

Re: Refinery Flaring Minimization Overview

RECOMMENDED ACTION

None; the Committee will discuss this item, but no action is requested at this time.

BACKGROUND

Air District staff will provide an update on rule development efforts to minimize flaring at refineries. Current Air District regulations addressing flaring at refineries include Regulation 12, Rule 11: Flare Monitoring at Refineries (Rule 12-11) and Regulation 12, Rule 12: Flares at Refineries (Rule 12-12). Rule 12-11 requires monitoring and reporting of vent gas, pilot and purge gas flow, and vent gas composition on a monthly basis. Rule 12-12 requires an Air District approved flare minimization plan updated annually and causal reports for reportable flaring events. Air District staff is currently researching historical flare emissions data and beginning the process of evaluating potential amendments to both rules.

There are several motivating factors behind potential amendments to Rules 12-11 and 12-12. Minimizing flaring is identified as strategy 1.3 of the Air District's *2024-2029 Strategic Plan* and the Richmond-North Richmond-San Pablo Community Steering Committee's Path to Clean Air calls for the reduction of flaring as strategy 2 in the fuel refining, support facilities, storage and distribution section. Additionally, in April 2024, the United States Environmental Protection Agency finalized the National Emissions Standards for Hazardous Pollutants addressing flaring at refineries. Other than minor administrative changes in 2021 to accommodate refineries using non-petroleum based feedstocks, neither Air District rule has been substantively amended since 2006. Since that time, Air District staff has identified a number of potential approaches to improve monitoring, reporting, and the overall enforceability of both rules. This presentation will provide background on initial efforts to respond to these motivating factors.

## DISCUSSION

When identifying potential rule amendment concepts, Air District staff reviewed the recently amended South Coast Air Quality Management District (SCAQMD) flaring rules 1118 and 1118.1 and discussed findings from implementation of existing Air District rules. The SCAQMD rules included performance targets tied to refinery processing capacity for sulfur dioxide emissions and oxides of nitrogen emissions from hydrogen plant flares. The SCAQMD rules also call for the categorization of flare causes in its reporting requirements. Additional ideas from Air District staff include enforceable emissions limits, improved monitoring, and additional notification and reporting requirements that include greater detail in causal reporting. Lastly, Air District staff will evaluate incorporation of progressive compliance requirements similar to those in Air District Regulation 8, Rule 28: Episodic Releases from Pressure Release Devices at Refineries and Chemical Plants.

Preliminary rule development efforts began at the start of 2025 and additional milestones will be met throughout the year and into 2026. Air District staff began research into flare emissions data and causal reports submitted by the five Bay Area refineries dating back over the past ten years. Trends analysis will be developed for the highest emitting flares, vent gas volumes, event frequencies, and identified causes for each refinery.

Continuing efforts in the near future include the formation of an external Technical Working Group composed of Air District staff, refinery representatives, community members, local government staff, and other advocacy group representatives. The group's primary purpose would be to gather information and opinions from stakeholders involved with and/or affected by flaring at refineries.

As the year progresses, Air District staff will be participating in several outreach events with community health organizations and the public at large. Later this month, at the April meeting of the Richmond-North Richmond-San Pablo Community Steering Community, Air District staff will engage and receive feedback by providing an overview of flaring and an update on efforts to address strategies in the Path to Clean Air. Air District staff anticipates conducting further public engagement later this summer to engage with communities most affected by refinery flaring events.

## BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine  
Executive Officer/APCO

Prepared by: Robert Cave  
Reviewed by: Bradley Cole

ATTACHMENT(S):

1. Refinery Flaring Minimization Overview Presentation





# Refinery Flaring Minimization Efforts

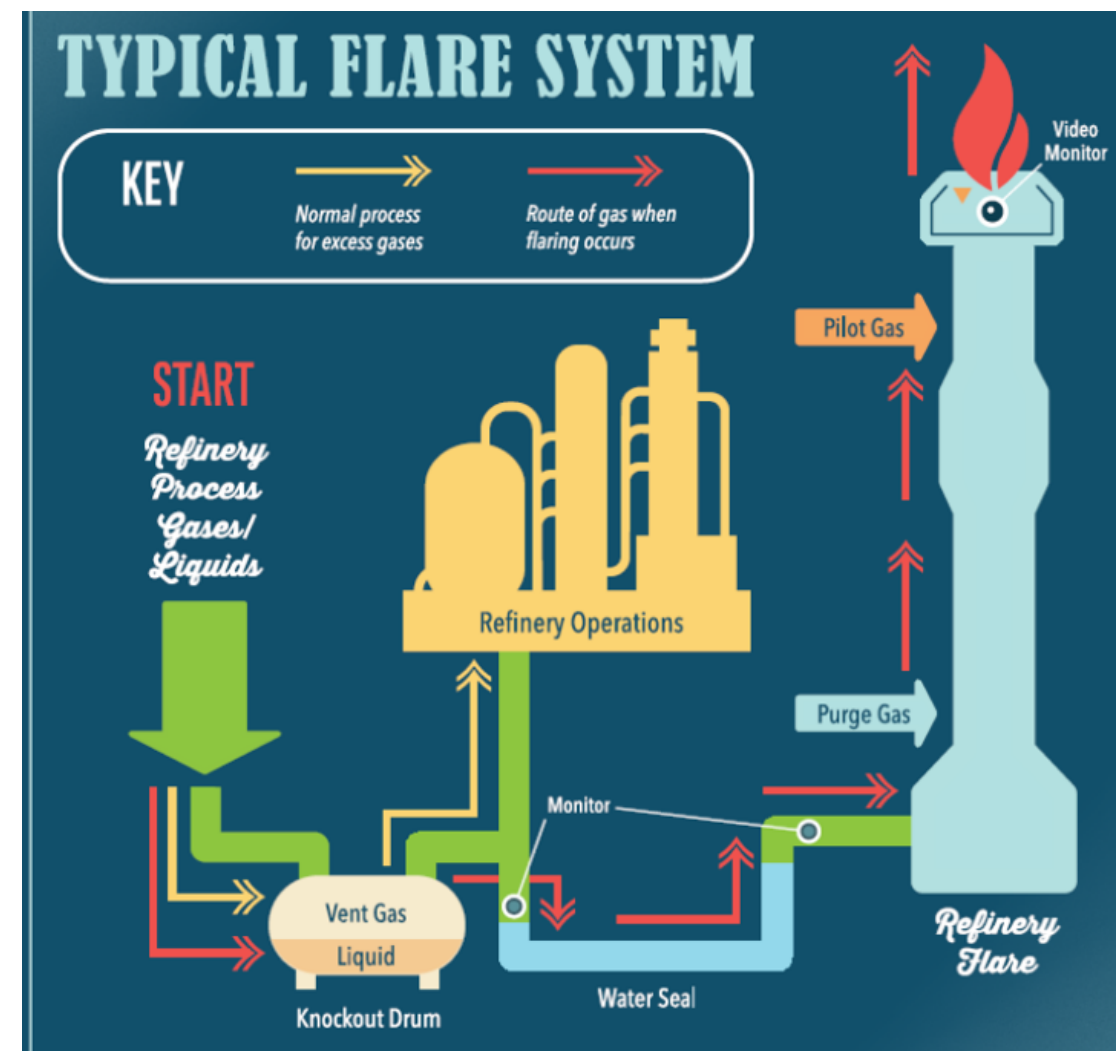
Stationary Source Committee

**April 9, 2025**

**Robert Cave**  
**Senior Air Quality Engineer**  
**Rules and Strategic Policy**

# Introduction – What is a flare system?

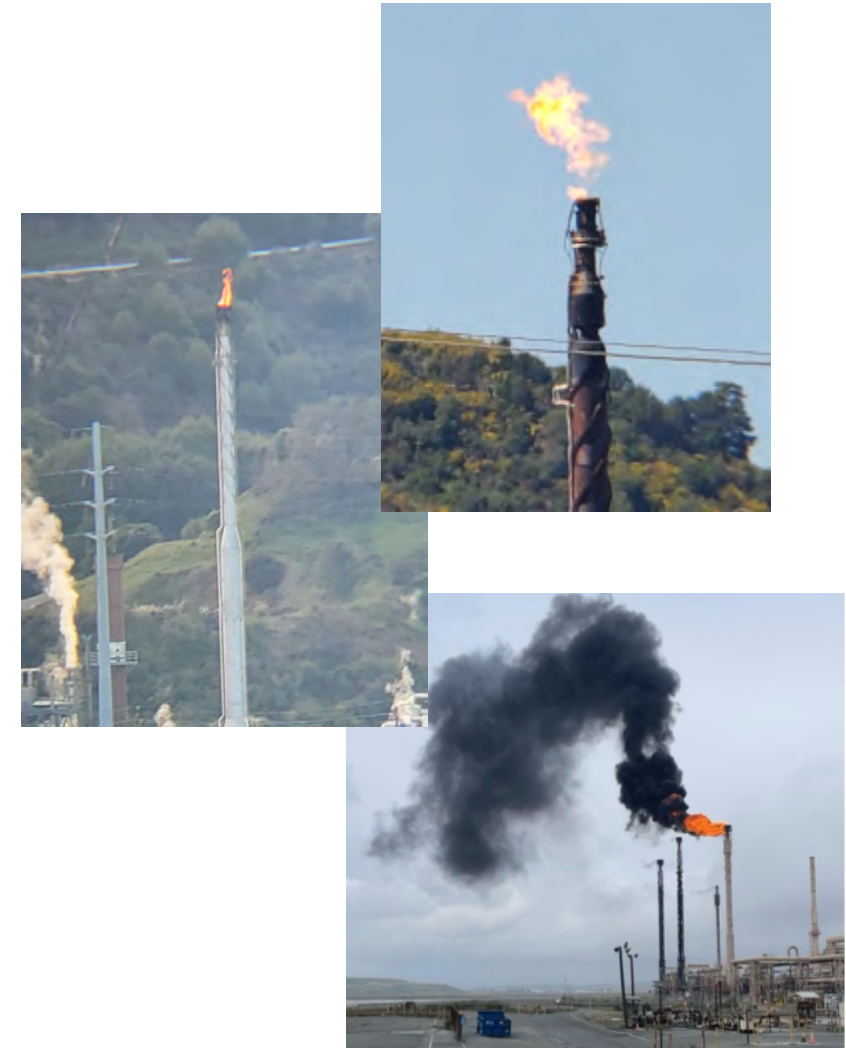
- Flare systems are safety devices that burn hydrocarbon gases that would otherwise be released
- Flares prevent the buildup of pressure and may prevent a more catastrophic event
- Flaring may occur from startup and shutdown of refinery processes



# Introduction – When do flares occur?

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- Emergency – To combust gas released due to a process malfunction. Must maintain a water seal and cannot occur more than 4 times per year
- Routine – Any flaring that does not meet the definition of Emergency
- Startup or Shutdown – To conduct periodic maintenance, replacement or repair of process units



# Introduction – Current Rule Requirements

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## **Regulation 12, Rule 11: Flare Monitoring at Refineries**

Monthly reporting:

1. Vent, pilot and purge gas flow
2. Vent gas composition

## **Regulation 12, Rule 12: Flares at Refineries**

1. Requires an Air District approved flare minimization plan updated annually
2. Causal reports for reportable flaring events

# Introduction – Other Jurisdictions

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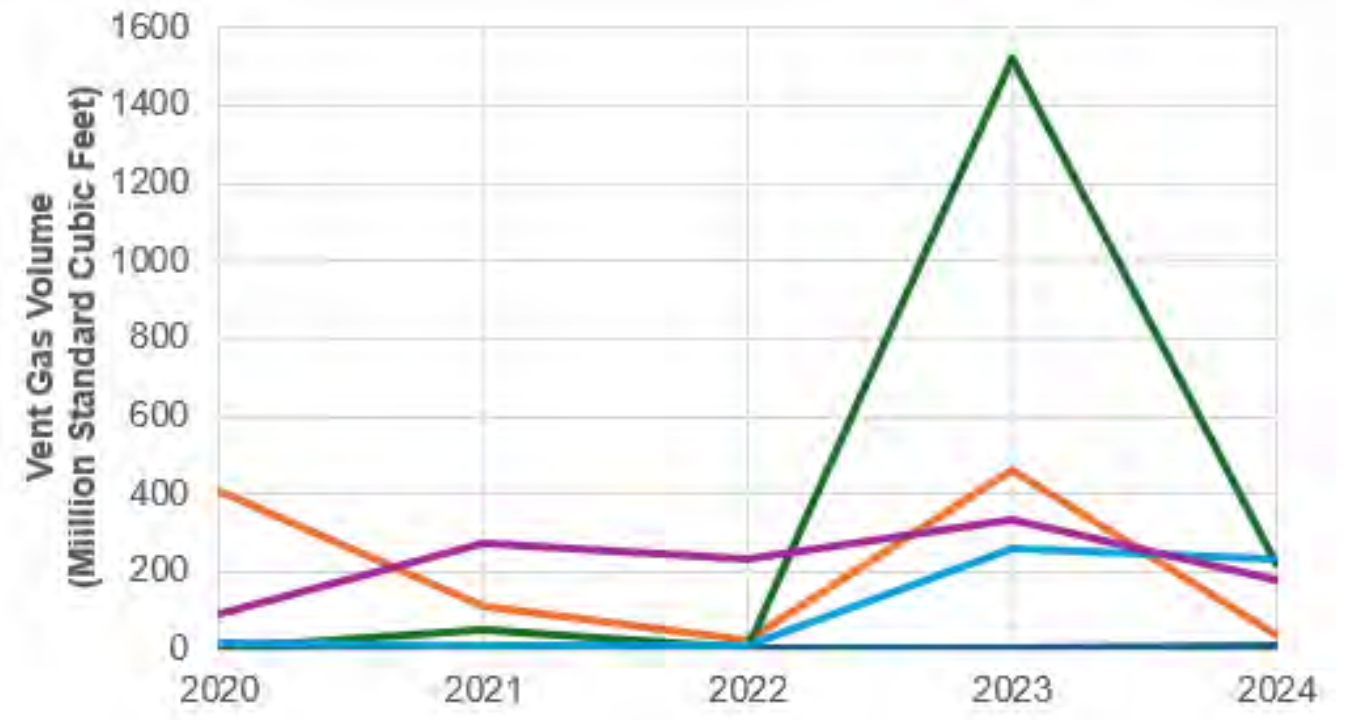
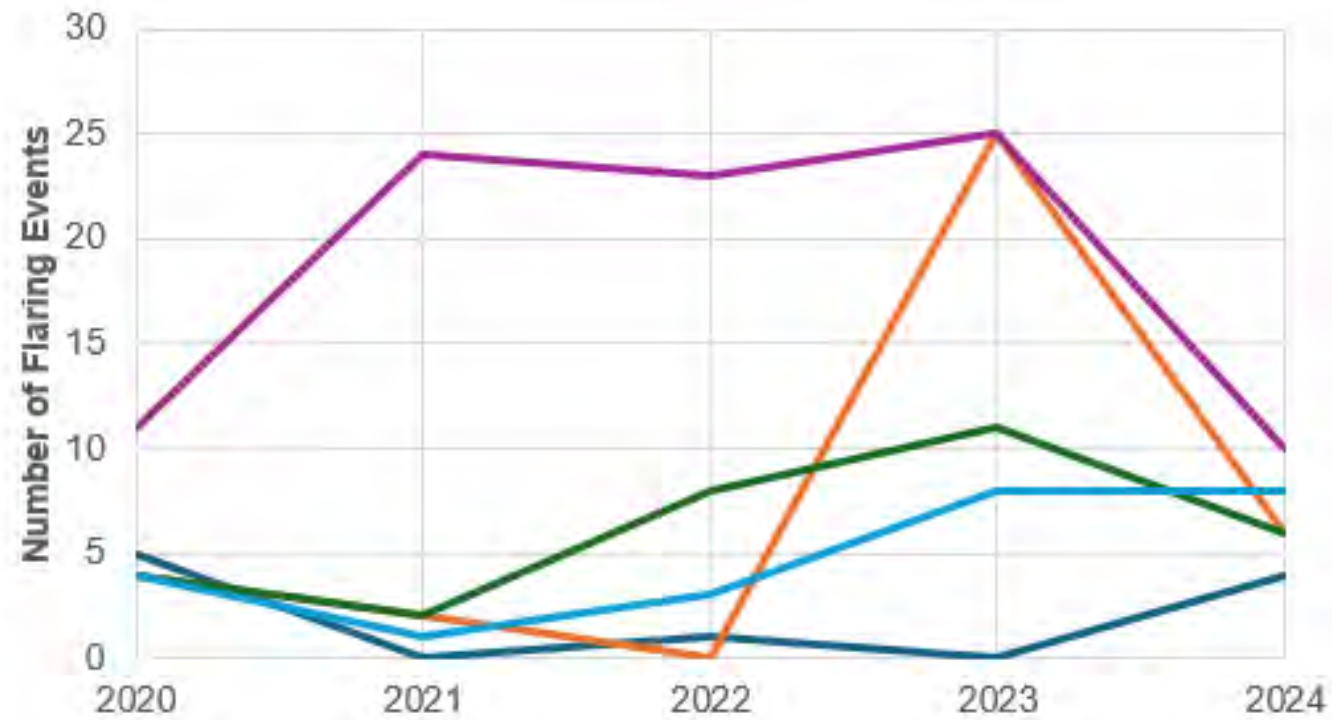
## **United States Environmental Protection Agency**

- New Source Performance Standards
- National Emissions Standards for Hazardous Air Pollutants

## **South Coast Air Quality Management District**

- Rule 1118: Control of Emissions from Refinery Flares
- Rule 1118.1: Control of Emissions from Non-Refinery Flares

# Bay Area Flaring Trends



—Valero —Marathon —MRC (Shell) —Phillips 66 —Chevron

# Impetus

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## **Strategic Plan Strategy 1.3 Minimize Flaring**

- Explore ways to minimize flaring
- Increase public engagement on flaring
- Share timely, accessible information
- Increase inspections and air pollution monitoring

## **Richmond-North Richmond-San Pablo Community Path to Clean Air Strategy FR 2.6**

Evaluate potential updates to Rules 12-11 and 12-12 incorporating health impact analyses, enhanced enforceability, and more stringent limits

*FR = Fuel Refining*



# Potential Rule Concepts

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- Sulfur Dioxide limits tied to processing capacity
- Nitrogen Oxides limits for hydrogen plant flares
- Progressive compliance requirements
- Improved flare monitoring
- Improved notification and reporting
- Categorization of types of flaring events
- More detailed causal reports



# Current Status of Rule Development Efforts

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- Analysis of last 10 years of flare emissions and causal reports
- Refinery Technical Working Group composed of Industry, Labor, Community, local Government, and Air District
- Public Outreach efforts
  - Board Committee Presentations
  - Community Steering Committee Briefings
  - Updates to community groups (e.g., Refinery Communities Workgroup)

# Next Steps

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- Richmond-North Richmond-San Pablo Community Steering Committee April Meeting
- Public Workshop Kickoff this Summer
- Concept Paper on potential rule amendments Quarter (Q)3 2025
- Completion of educational materials (“Flaring 101”) Q3 2025

# Questions?

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## **For more information:**

Robert Cave, Senior Air Quality Engineer – [rcave@baaqmd.gov](mailto:rcave@baaqmd.gov)

Alex Sohn, Senior Air Quality Engineer – [asohn@baaqmd.gov](mailto:asohn@baaqmd.gov)

**BAY AREA AIR DISTRICT**  
Memorandum

To: Chairperson Ken Carlson and Members  
of the Stationary Source Committee

From: Philip M. Fine  
Executive Officer/APCO

Date: April 9, 2025

Re: Potential Amendments to Rule 9-6

RECOMMENDED ACTION

None; the Committee will discuss this item, but no action is requested at this time.

BACKGROUND

In March 2023, the Air District Board of Directors adopted amendments to Regulation 9, Rule 4 and Regulation 9, Rule 6 ("building appliance rules") which included zero nitrogen oxides (NO<sub>x</sub>) emissions standards starting in 2027, 2029, and 2031 depending upon the appliance type and size. The amendments to Rules 9-4 and 9-6 are projected to result in substantial health benefits to Bay Area residents as NO<sub>x</sub> from buildings are a significant source of emissions.

In December 2024, Air District staff presented an update to the Board of Directors to convey current understanding of the implementation readiness of the zero NO<sub>x</sub> building appliances rules. The information presented in this report was gathered through significant stakeholder engagement and was focused on the January 1, 2027 requirement in Rule 9-6 for water heaters less than 75,000 BTU/hr. This presentation concluded that while significant progress has been made toward successful implementation of Rule 9-6, Air District staff see benefits in further amending the rule to provide increased flexibility in areas where challenges remain.

DISCUSSION

Air District staff is currently evaluating potential pathways for amendments to Rule 9-6 to address remaining implementation challenges. Details on potential pathways, including benefits and considerations, are provided below:

## Alternative Compliance Plans by Installation Project:

### Example Concepts:

- Allowance for implementation delays on a project-by-project basis to account for compliance concerns such as:
  - Utility upsizing delay
  - Additional construction requirements
  - Emergency replacement
  - Significant cost burden
- Original South Coast Air Quality Management District (SCAQMD) Proposal for Rules 1111 and 1121
  - Recently changed, no longer proposed direction
- Benefits:
  - Allows project-by-project consideration of impact
  - Protect some renters from rent pass-throughs due to expensive upgrades
  - Provides relief to property owners with buildings that cannot be easily transitioned to zero NOx units
- Considerations:
  - Significant resource/staffing increase might be needed for the Air District
  - Difficult to enforce at point of sale of equipment
  - Could result in processing delays that affect consumers
  - Burden of proof on building/project owner
  - Air District determining what is significant/burdensome might be difficult
  - Delays increase demand for equipment rentals
  - Slower transition to zero NOx emissions and delayed health and equity improvements
  - Not aligned with other agencies

### Outlining Specific Installation Types:

- Example Concepts:
  - Rule 9-6 currently has two equipment categories distinguished only by size
    - Less than 75,000 BTU/hr and between 75,000 and 2 million BTU/hr
- Changes to requirements for categories such as:
  - Smallest units (typically used in multifamily or space constrained situations)
  - Hydronic systems (typically used in multifamily or space constrained situations)
  - Food service/high heat applications
  - Temporary emergency replacements

## Benefits:

- Protect some renters from rent pass-throughs due to expensive upgrades
- Provides relief to property owners with buildings that cannot be easily transitioned to zero NOx units
- Allows diverse technology options
- May protect some small businesses
- Potential allowance for temporary emergency replacement installations
- Considerations:
  - Slower transition to zero NOx emissions and delayed health and equity improvements, particularly in commercial and multifamily buildings
  - Potential for allowed natural gas units to be chosen over previous size/unit type further slowing transition to zero NOx and associated health and equity improvements

## Fee Structure for Manufacturer Sales:

- Example Concepts:
  - Allow manufacturers to sell a certain percentage of NOx-emitting units instead of zero NOx units for a mitigation fee
  - Require manufacturers to achieve certain market share of zero NOx units, increasing over time
- SCAQMD proposal: Manufacturer Sales Target of 30% zero NOx unit by 2027; ramping up to 90% zero NOx units by 2036
- California Energy Commission considering state-wide reporting rule
- Benefits:
  - Provides flexibility with market and technology transformation
  - Compliance requirements are not enforced on individual consumers
  - Creates potential funding opportunity due to mitigation fee
  - Facilitates alignment and coordination with other California government agencies
- Considerations:
  - Slower transition to zero NOx emissions and health and equity improvements
  - Setting mitigation fee at level that drives the market but does not unduly burden consumers
  - Difficult for manufacturers to control sales levels of zero NOx units

Implementing an effective solution to the challenging installations identified in Air District staff's December 2024 report will likely be realized through a combination of the pathways outlined above. Staff is also aware of the need to communicate the intended amendments as soon as possible to ensure regulatory certainty for both industry and the public and ensure that any new policy aligns with other agencies working on similar rules, including working together to ease the administrative burden of any future reporting requirements.

Air District staff will continue to refine concepts for amendments of Rule 9-6 with plans to hold a public workshop in summer 2025 and proposing rule amendments to the Board of Directors as soon as practicable in 2026.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

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Executive Officer/APCO

Prepared by: Jennifer Lam  
Reviewed by: David Joe and Idania Zamora

ATTACHMENT(S):

1. Potential Amendments to Rule 9-6 Presentation



# Potential Amendments to Rule 9-6

Stationary Source Committee

April 9, 2025

Jennifer Lam

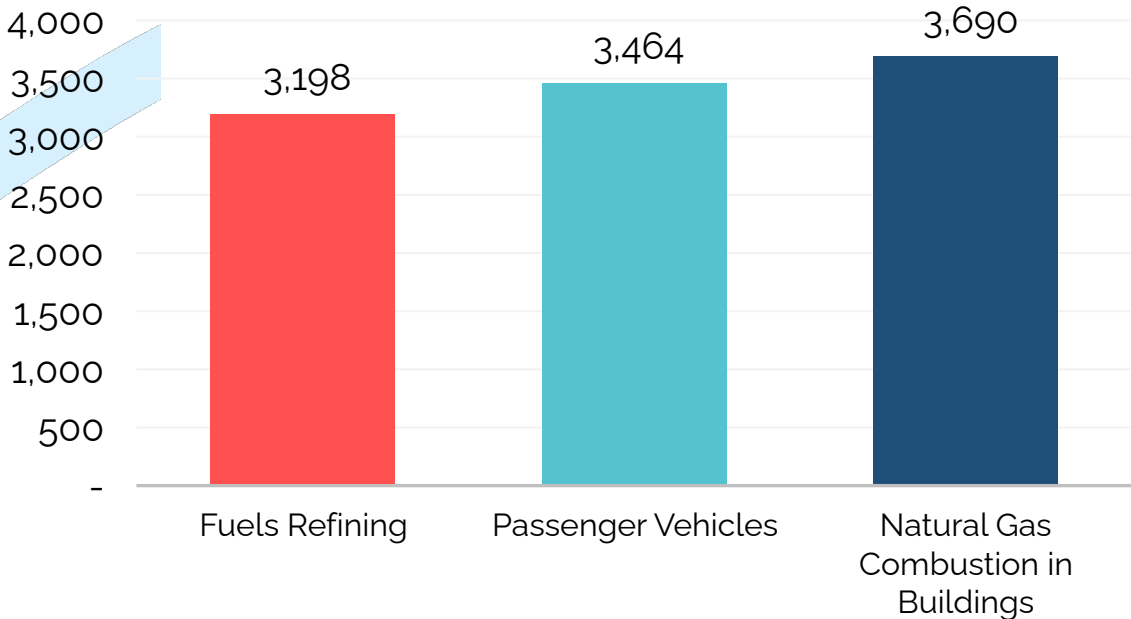
Assistant Manager

Rules and Strategic Policy Division

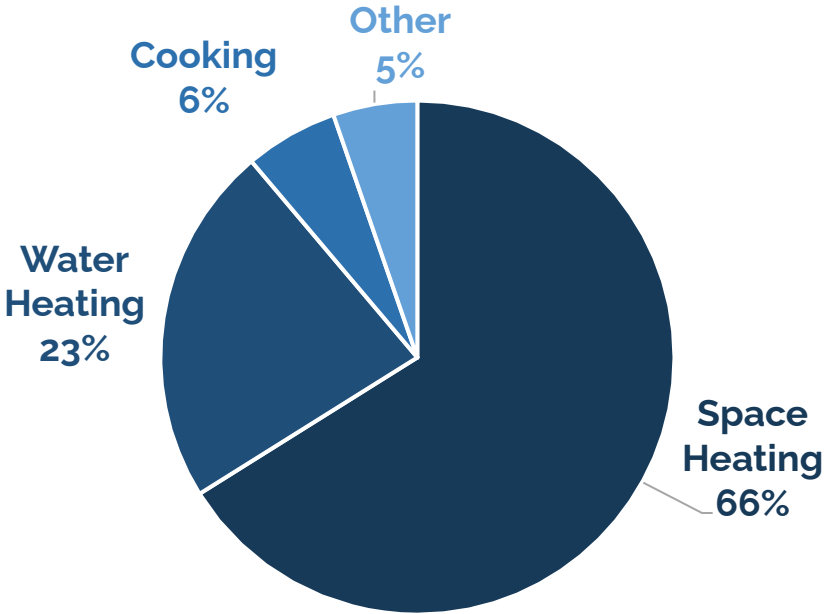


# Building Nitrogen Oxides (NOx) Emissions Overview

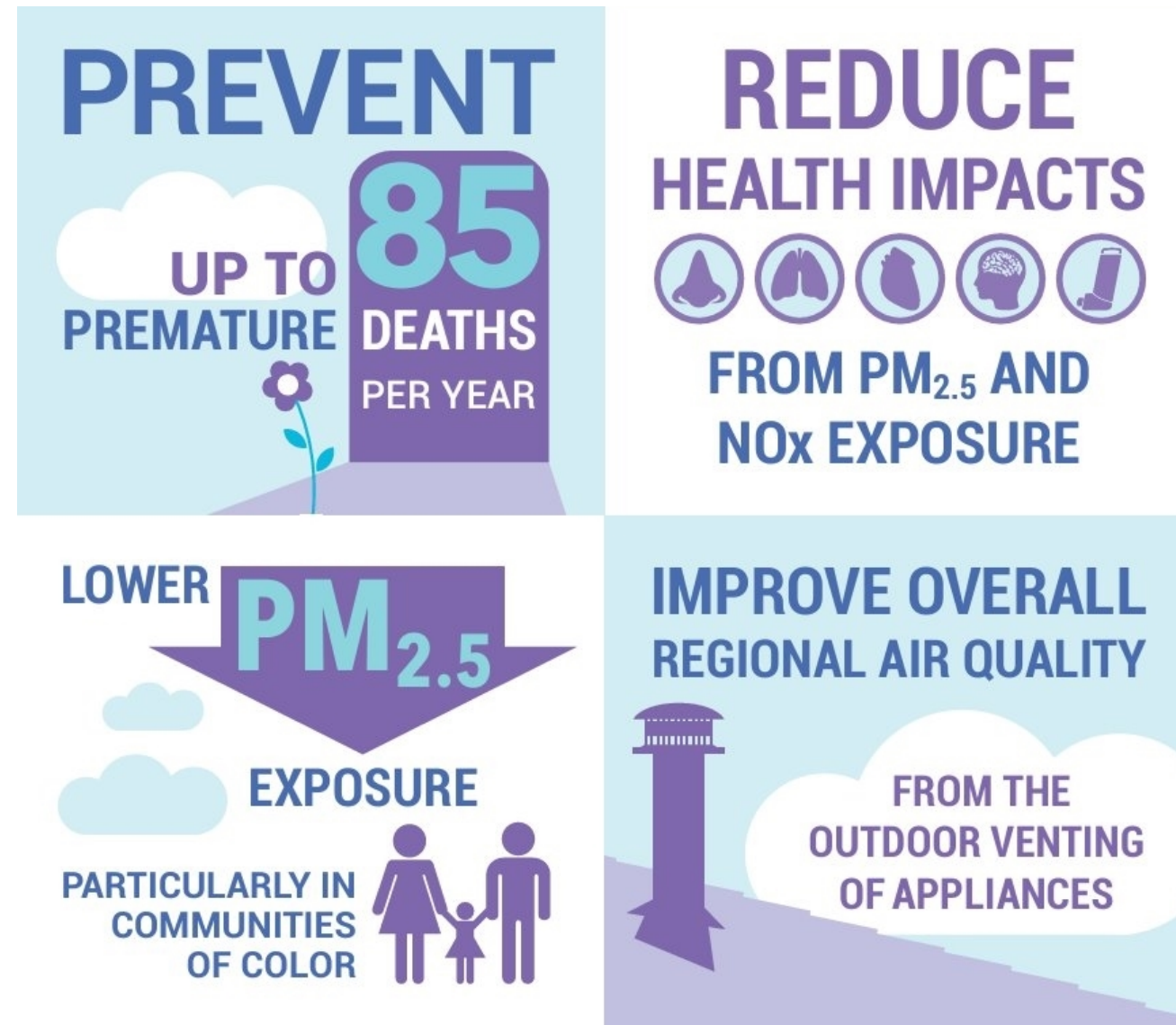
2019 Air District NOx Emissions (tons)



Air District Residential Natural Gas Combustion NOx Emissions (2019)



# Health Benefits Overview



PM: Particulate Matter

# Upcoming Implementation Timelines

- **Regulation 9, Rule 4:** NOx from Fan Type Residential Central Furnaces

- **Regulation 9, Rule 6:** NOx from Natural Gas-Fired Boilers and Water Heaters

- **Zero NOx amendments** adopted on March 15, 2023, with future implementation dates

<b>1/1/2027</b>	Water heaters less than 75,000 BTU/hr*
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<b>1/1/2029</b>	All applicable natural gas-fired furnaces (e.g., residential and commercial; including direct-vent units)
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<b>1/1/2031</b>	Water heaters 75,000 to 2 million BTU/hr
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\*BTU/hr = British thermal units per hour

# Interim Board Requirements

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## **Section 9-6-404: Interim Report:**

- Required two years before the compliance deadline
- Delivered to Board of Directors in December 2024

## **Key Components:**

- Technology Options: Available and upcoming compliant technologies
- Cost Analysis: Projected purchase, installation, and ancillary costs
- Market readiness: Feasibility and necessary infrastructure upgrades
- Incentives: Available programs to reduce costs and support adoption
- Workforce & Installation: Labor needs, training requirements, and barriers

# Remaining Challenges to be Addressed

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- **Challenging installations** due to space constraints and/or building configurations that may result in increased installation costs
- Limited options for **specific equipment types** or applications
- Need to ensure **equity for low-income** residents
- Uncertainty of sustainable **incentive solutions**
- Work to align with **upcoming rules from other agencies**

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# Potential Amendments to Address Remaining Challenges

# Alternative Compliance Plans by Installation

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Option 1:

## ***Example Concepts:***

- Allowance for implementation delays on a project-by-project basis to account for compliance concerns such as:
  - Utility upsizing delay
  - Additional construction requirements
  - Emergency replacement
  - Significant cost burden
- Original South Coast Air Quality Management District (SCAQMD) Proposal
  - Rules 1111 and 1121
  - Recently changed, no longer proposed direction

# Alternative Compliance Plans by Installation (cont.)

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Option 1:

## Benefits

- Allows project by project consideration of impact
- Protect some renters from rent pass-through due to expensive upgrades
- Provides relief to property owners with buildings that cannot be easily transitioned to zero NOx units



# Alternative Compliance Plans by Installation (cont.)

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## Option 1:

### Considerations

- Significant resource/staffing increase might be needed for the Air District
- Difficult to enforce at point of sale of equipment
- Could result in delays which effect consumers
- Burden of proof on building/project owner
- Air District determining what is significant/burdensome might be difficult
- Delays increase demand for equipment rentals
- Slower transition to zero NOx emissions and delayed health and equity improvements
- Not aligned with other agencies

# Outlining Specific Installation Types

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Option 2:

## ***Example Concepts:***

- Rule 9-6 currently has two equipment categories distinguished only by size
  - Less than 75,000 BTU/hr, and between 75,000 and 2 million BTU/hr
- Changes to requirements for categories such as:
  - Smallest units (typically used in multifamily or space constrained situations)
  - Hydronic systems (typically used in multifamily or space constrained situations)
  - Food service/high heat applications
  - Temporary emergency replacements

# Outlining Specific Installation Types (cont.)

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Option 2:

## Benefits

- Protect some renters from rent pass-throughs due to expensive upgrades
- Provides relief to property owners with buildings that cannot be easily transitioned to zero NOx units
- Allows diverse technology options
- May protect some small businesses
- Potential allowance for temporary emergency replacement installations

# Outlining Specific Installation Types (cont.)

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Option 2:

## Considerations

- Slower transition to zero NOx emissions and delayed health and equity improvements, particularly in commercial and multifamily buildings
- Potential for allowed natural gas units to be chosen over previous size/unit type further slowing transition to zero NOx and associated health and equity improvements

# Fee Structure for Manufacturer Sales

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Option 3:

## ***Example Concepts:***

- Allow manufacturers to sell a certain percentage of NOx-emitting units instead of zero NOx units for a “mitigation fee”
- Require manufacturers to achieve certain market share of zero NOx units, increasing over time
  - SCAQMD proposal: Manufacturer Sales Target of 30% zero NOx unit by 2027; ramping up to 90% zero NOx units by 2036
  - California Energy Commission considering state-wide reporting rule

# Fee Structure for Manufacturer Sales (cont.)

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Option 3:

## Benefits

- Provides flexibility with market and technology transformation
- Compliance requirements are not enforced on individual consumers
- Creates potential funding opportunity due to mitigation fee
- Facilitates alignment and coordination with other California government agencies

# Fee Structure for Manufacturer Sales (cont.)

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## Option 3:

### Considerations

- Slower transition to zero NOx emissions and delayed health and equity improvements
- Setting mitigation fee at level that drives the market but does not unduly burden consumers
- Difficult for manufacturers to control sales levels of zero NOx units



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# Discussion and Next Steps



# Combination of Solutions

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## **Example:**

- Retain existing dates and requirements for traditional units between 30,000-75,000 BTU/hr
- Introduce ramping sales requirements and mitigation fee structure for units under 30,000 BTU and hydronic units with 100% sales target in future year
- Allow for registered contractors to participate in temporary emergency replacement program

# Additional Considerations

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Communicating intended path as soon as possible



Alignment with other agencies



Ease of compliance for reporting requirements

# Next Steps

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Consider Board feedback and direction on staff's potential flexibility options



Conduct Public Workshop(s) to discuss potential amendments with stakeholders to better inform staff on strategy development



Report back to the board with updates and recommendations

# Questions/Feedback

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## **For more information:**

<https://www.baaqmd.gov/rules-and-compliance/rule-development/building-appliances>

[ruleddevelopment@baaqmd.gov](mailto:ruleddevelopment@baaqmd.gov)

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