



Thank you for joining the
Refinery Technical Working
Group – Meeting #5!

We still start at 5:30pm

Refinery Technical Working Group – Meeting #5

July 8, 2026



Agenda

1	Welcome & Introductions	5:30pm
2	Rule Development & Concept Paper Stage	5:40 pm
3	Flaring Emissions & Data Context	5:55 pm
4	Updated Potential Rule Amendment Concepts for Rules 12-11 and 12-12	6:10 pm

Our Purpose & Participation Norms

RTWG Purpose

Forum for air quality-related matters at refineries and in refinery communities

Solicit stakeholder inputs on refinery-related rules such as:

- Rule 12-11: Flare Monitoring at Refineries
- Rule 12-12: Flares at Refineries
- Rule 12-15: Refining Emissions Tracking Rule
- Potentially other refinery-related rules

Discuss technical aspects related to these rules

Build shared understanding on refinery flaring and related rules

Participation Norms

RTWG is a collaborative space for sharing perspectives. We will:

- Respect all voices; one speaker at a time; wait to be called on by the facilitator before speaking
- Avoid posturing or dominating discussion
- Input will inform—but not dictate—rule amendments
- Meetings will be in-person only

Welcome & Introductions



Reflecting on our Last RTWG Meetings



RTWVG Meetings to Date

1

2

3

4

June 25, 2025

**RTWVG Initiated
Background on Rules
12-11 and 12-12**

Aug. 27, 2025

Charter & Flaring 101

Oct. 29, 2025

**Improvements to
Refinery Fenceline
Air Monitoring
Requirements**

Feb. 11, 2026

**Potential Rule
Amendment
Concepts for Rules
12-11 and 12-12**

Rule Development Process



Impetus for Flare Rule Amendments

Bay Area Air District's Flare Rules

Rule 12-11: Flare Monitoring at Refineries
Rule 12-12: Flares at Refineries

Why now?

Program improvements identified since the rules were adopted in the early 2000s
Changes to federal regulations and rules at other Air Districts related to flaring

Impetus for Flare Rule Amendments (cont'd)

Why now?

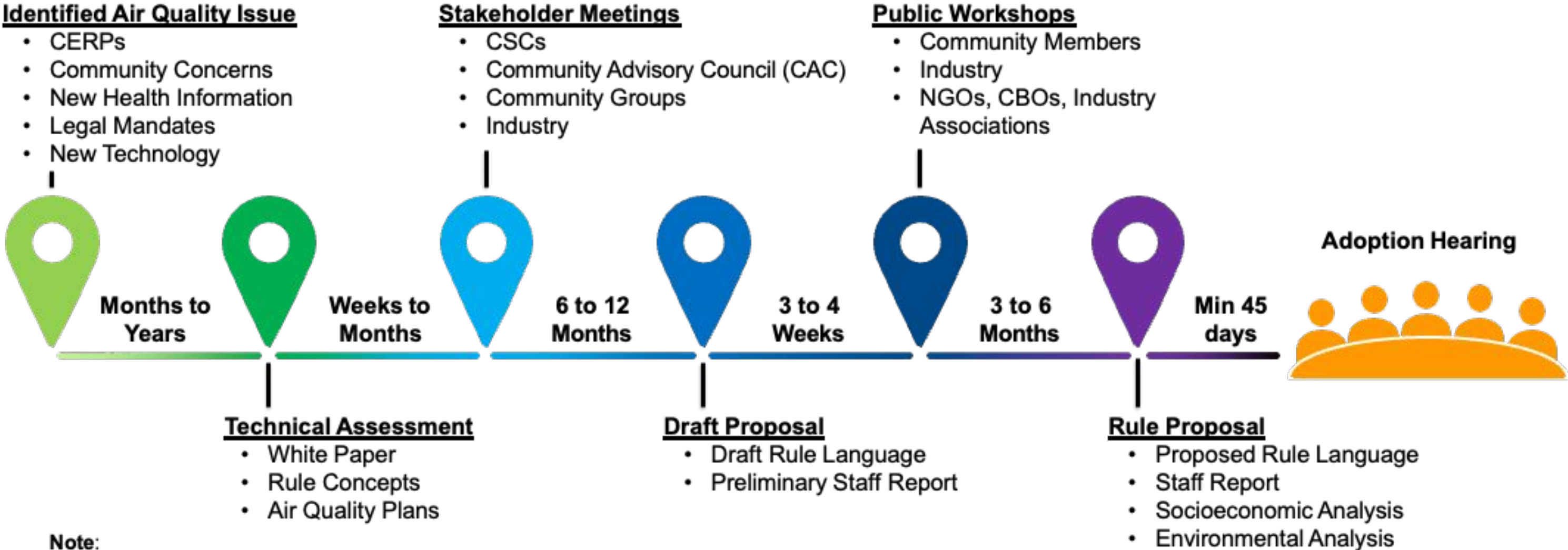
Commitments in:

- Air District's 2024-2029 – Strategic Plan
- Richmond/North Richmond/San Pablo AB617 Community Emission Reduction Plan

Known challenges:

- Transparency, Community Health Impacts, and Feasibility

Rule Development and Public Engagement



Note:
CBO: Community-Based Organization
CSC: Community Steering Committees

CERP: Community Emission Reduction Plans
NGO: Non-Governmental Organization

Summary of Input on Concepts to Date



What We've Heard from Stakeholders

Stakeholders want clearer definitions, better data, more consistent reporting, and a rule process that is transparent, technically grounded, and enforceable.

Community Perspective

Need faster, clearer information during and after flaring events, with more transparency about health impacts, event severity, and what communities should do. Rule development effort targeting health benefits, rule enforceability, and stringency.

Industry Perspective

Flares are safety systems. New requirements should align with existing regulations, reflect site-specific operations, and avoid conflicts or burdens that do not improve outcomes.

Labor Perspective

Worker safety and operational feasibility need to remain central. Rules should avoid unintended consequences that could delay necessary safety actions.

Key Ideas for Further Rule Concept Development

Input to date supports stronger transparency and accountability, but stakeholders have raised important questions about how requirements should be designed, implemented, and enforced.

Transparency: How can flaring information be shared more clearly and quickly without creating confusion with existing warning systems?

Data and Reporting: How can monitoring, causal reports, and emissions data be made more consistent, useful, and accessible?

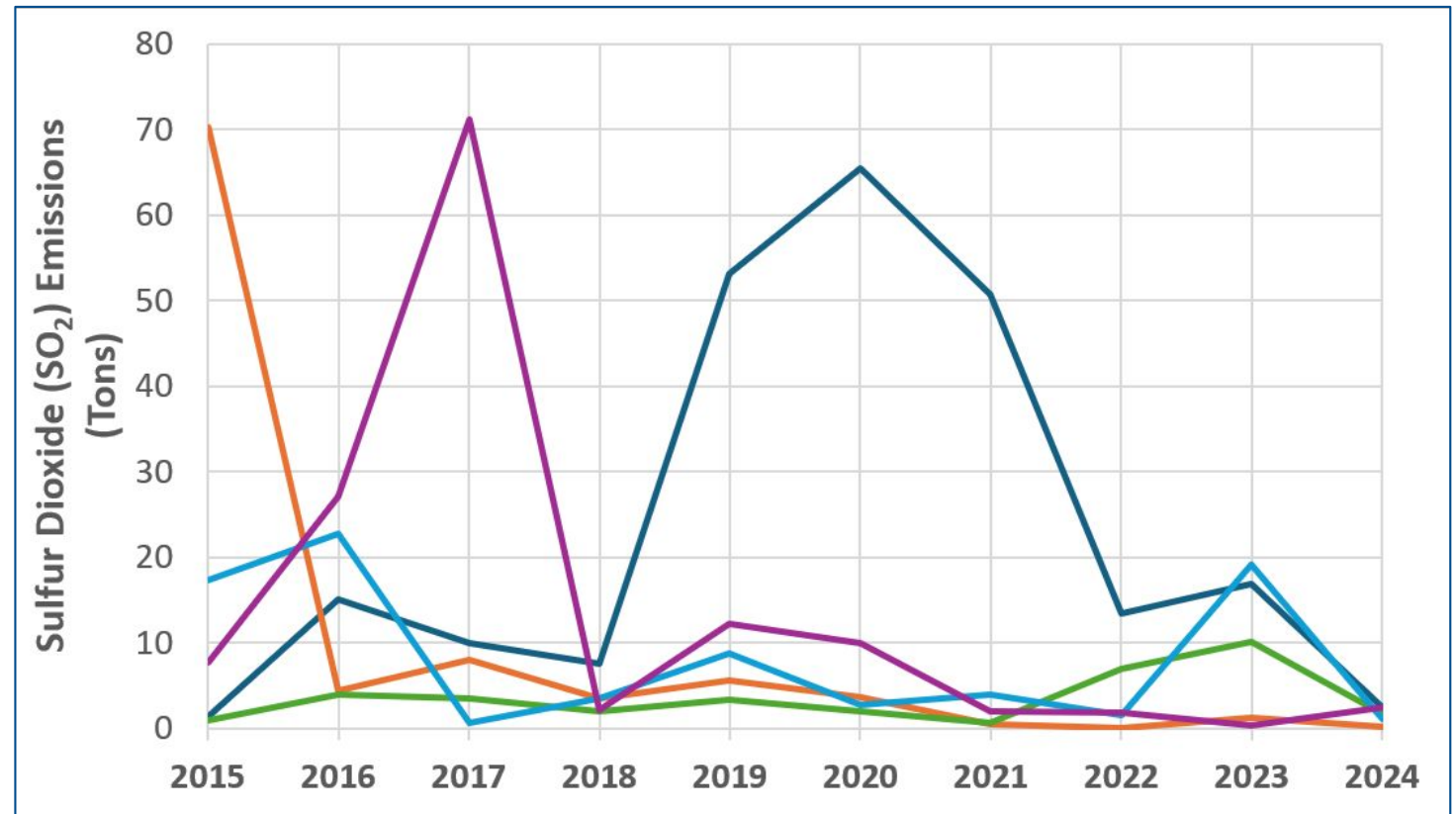
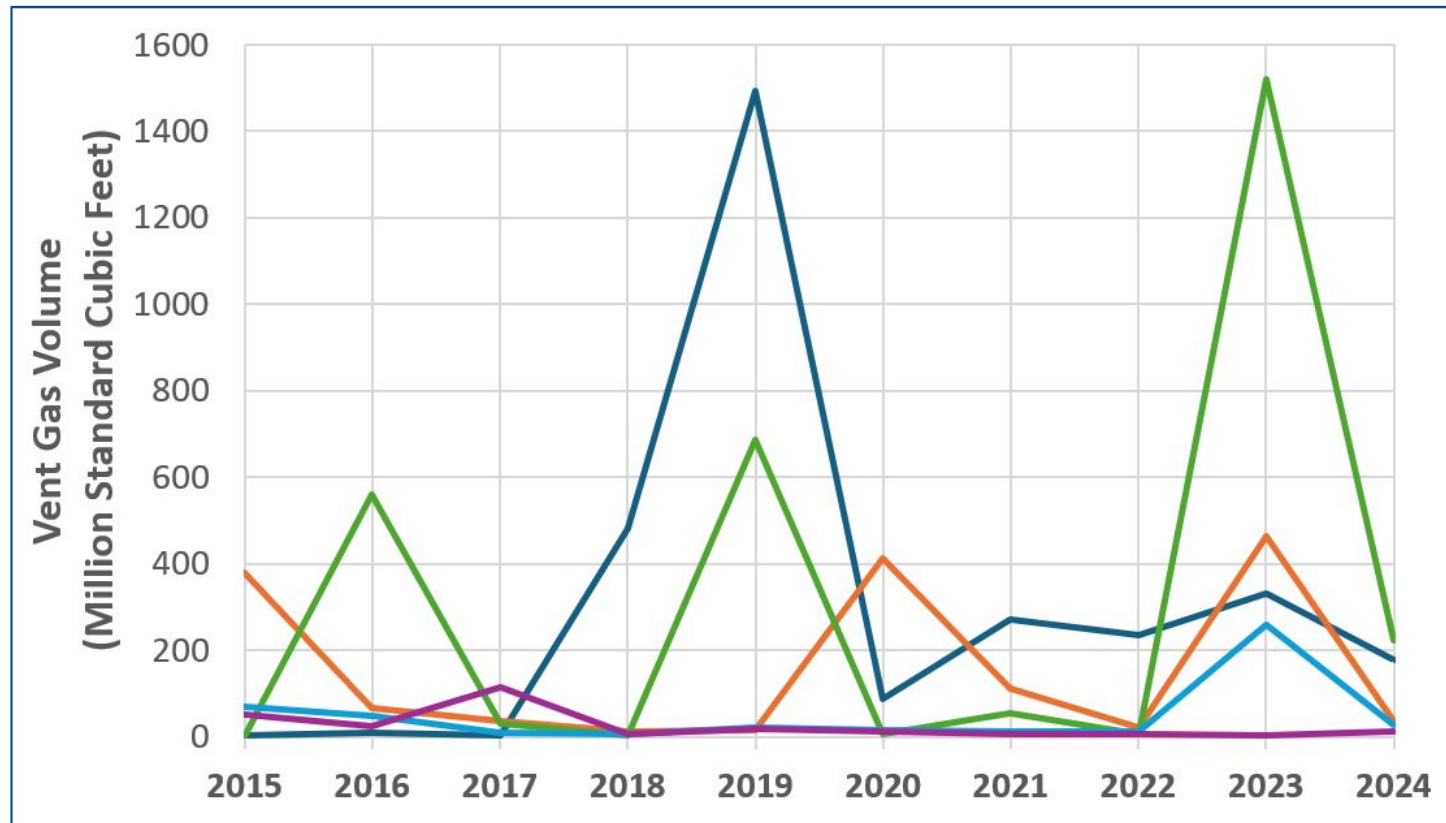
Definitions: How should emergency, non-emergency, planned, and unplanned flaring be defined so requirements are clear and enforceable?

Emissions Reduction and Feasibility: How should limits, mitigation measures, and audits be evaluated while accounting for safety, technical feasibility, and site-specific conditions?

Flaring Emissions Context Data



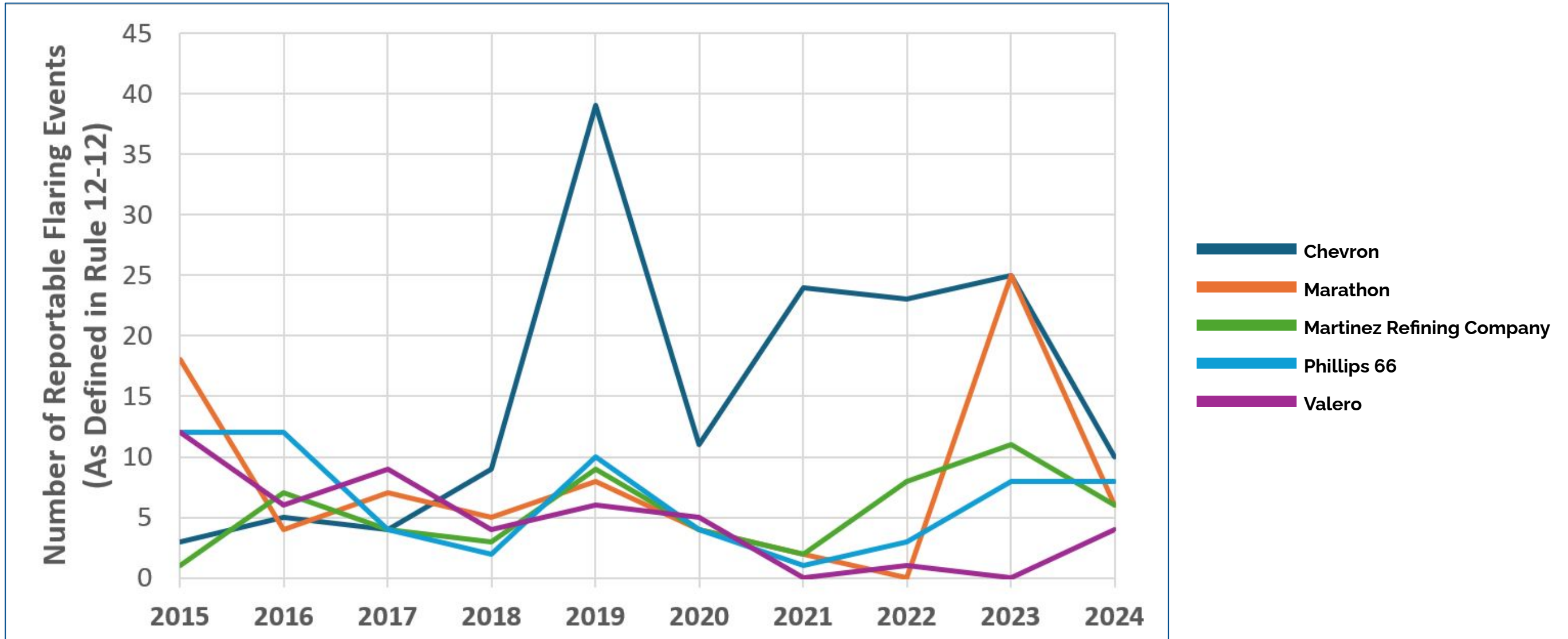
Vent Gas Volume and SO₂ Emissions by Refinery *All Flaring Activity from 2015-2024*



█ Chevron
 █ Marathon
 █ Martinez Refining Company
 █ Phillips 66
 █ Valero

Reportable Flaring Events by Refinery 2015-2024

Reportable flaring event: Vent gas volume > 500,000 standard cubic feet in a day or SO₂ emissions > 500 pounds in a day



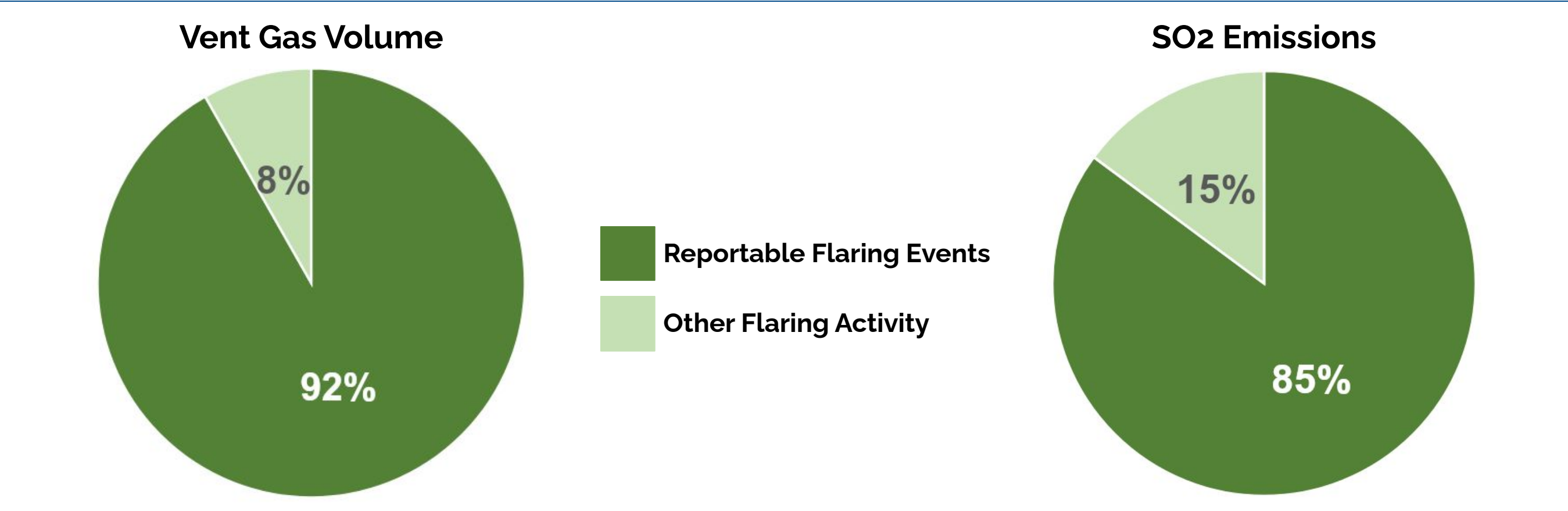
Reportable Flaring Events and Other Flaring Activity 2015-2024

Reportable Flaring Event: Vent gas volume > 500,000 standard cubic feet in a day or SO2 emissions > 500 pounds in a day

Reportable Flaring Events from Rule 12-12 Causal Reports

All Flaring Activity from Rule 12-11 Monthly Flare Data Reports

Other Flaring Activity = (All Flaring Activity) - (Reportable Flaring Events)



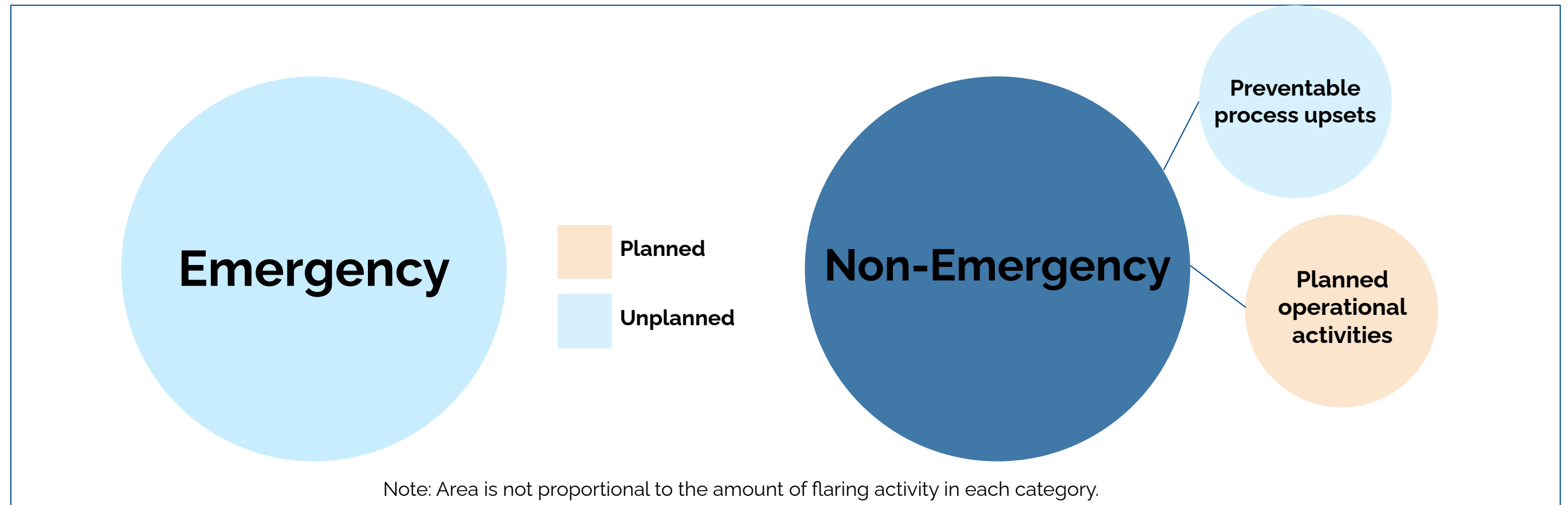
Definitions of Flaring Cause Categories

Emergency: due to condition at a refinery beyond reasonable control

Non-emergency: due to condition that does not meet the definition of emergency

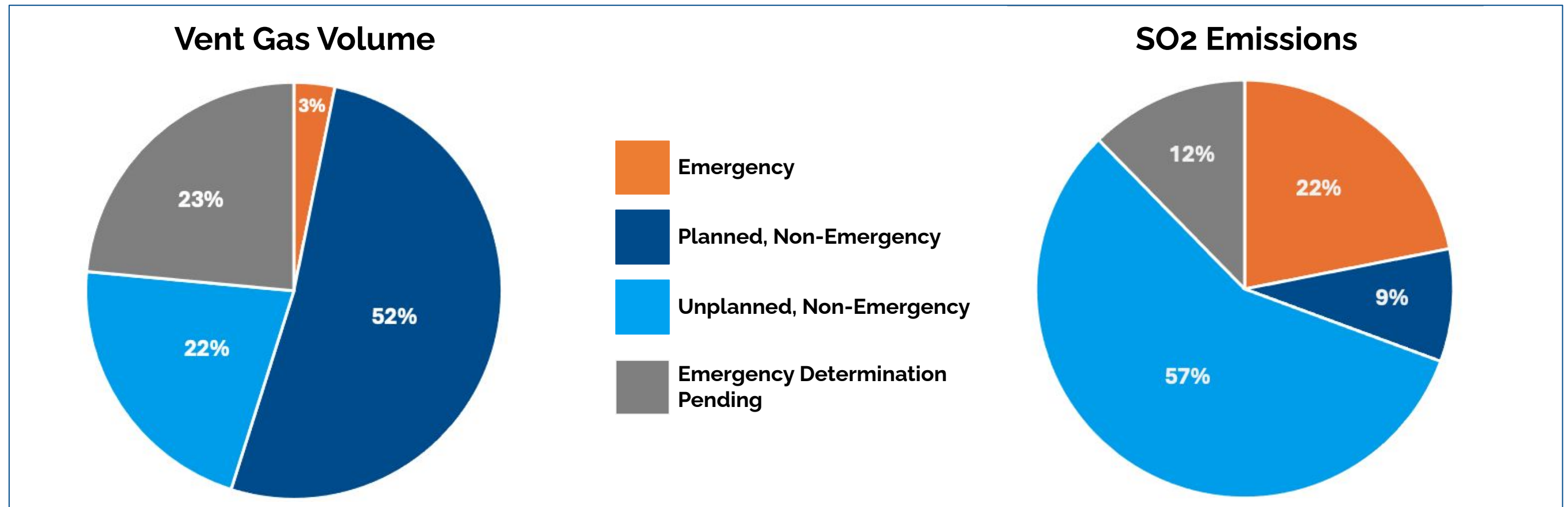
Planned: includes scheduled operational activities

Unplanned: includes emergency flaring, unplanned shutdown, and unforeseen maintenance



Unplanned and Planned Emergency and Non-Emergency Reportable Flaring Events 2015-2024

- Planned/unplanned designation is based on South Coast Rule 1118 definitions of Planned Flare Event and Unplanned Flare Event.
- Emergency/non-emergency designation is based on Air District determination of each reportable flaring event, which may differ from the published causal report



Rules 12-11 and 12-12 Updated Potential Amendment Concepts



Today's Core Discussion Questions for the RTWG

- 1. What questions are you looking for the concept paper to help answer?*
- 2. What information would help you better understand how this concept could be further developed?*
- 3. What should the Air District investigate in the next phase of rule development?*

Goals for Potential Amendment Concepts

Goal #1

Improve the Flare Minimization Plan Update Process and the Reporting and Monitoring Requirements

Goal #2

Reduce Flaring Emissions and Frequency

Goal #1 - Flare Minimization Plans and Reporting and Monitoring Requirements

- 1.1. Strengthen Flare Minimization Plan Updates**
- 1.2. Standardize Reporting Requirements**
- 1.3. Expand Definitions and Categories for Reporting Causes of Flaring**
- 1.4. Strengthen Monitoring and Reporting Requirements**

1.1. Strengthen FMP Updates

Potential Concept Description

- Submission contents:
 - **Technology review and updated cost analyses of installing or implementing measures to reduce flaring**
 - Mitigation measures implemented to address rule violations
 - **Redlined copies of FMP and process drawings**
- **Frequency of updates of FMP elements**

Impacts

- Increase enforceability of rule requirements
- Resource savings for the Air District and regulated facilities

Context

- South Coast Rule 1118 and program improvements

Note: Text in bold indicates updates made since RTWG Meeting #4.

1.2. Standardize Reporting Requirements

Potential Concept Description

- Report templates
- Causal categorization system
- Emissions calculation methodologies

Impacts

- Increase data consistency and accessibility
- Resource savings for the Air District and regulated facilities

Context

- South Coast Rule 1118 and program improvements

1.3. Expand Definitions and Categories for Reporting Causes of Flaring

Types of Flaring under Current Rule 12-12

Emergency Flaring	Non-emergency Flaring
Flaring due to condition at a refinery beyond reasonable control.	Flaring due to condition that does not meet the definition of Emergency – including both Unplanned and Planned Flaring

Emergency Flaring Definition from Rule 12-12

A condition at a refinery beyond the reasonable control of the owner or operator requiring immediate corrective action to restore normal operation that is caused by a sudden, infrequent and not reasonably preventable equipment failure, natural disaster, act of war or terrorism or external power curtailment, excluding power curtailment due to an interruptible power service agreement from a utility.

1.3. Expand Definitions and Categories for Reporting Causes of Flaring (cont'd)

Potential Concept Description

- Evaluating definitions:
 - Clarify: Emergency to align with federal Malfunction definition
 - New: Planned and Unplanned

Impacts

- Improve clarity and consistency in defining the causes of flaring
- Stronger enforceability with clearer interpretation of requirements
- Minimize preventable flaring

Context

- South Coast Rule 1118 and program improvements

1.4. Strengthen the Monitoring and Reporting Requirements

Potential Concept Description

- Continuous monitoring for total sulfur and **flow downstream of water seal**
- Data acquisition and handling system (DAHS)
- Video monitoring: **Air District access to real-time data**, online submittal
- **Infrared camera monitoring**
- **Notification system to alert the community of planned and unplanned flaring**
- Review and approval process for causal reports and flare monitoring systems

Impacts

- Increase accuracy and integrity of emissions data
- Support stronger compliance assurance and enforcement
- **Provide community more information on flaring to supplement the Community Warning System**

Context

- South Coast Rule 1118 and program improvements

Note: Text in bold indicates updates made since RTWG Meeting #4.

Goal #2 - Reduce Flaring Emissions and Frequency

- 2.1. Incorporate Key Requirements From the US EPA Refinery Sector Rule**
- 2.2. Establish New Annual Flare Limits**
- 2.3. Require Mitigation Measures for Violations**
- 2.4. Require Submittal of Causal Reports Based on Additional Triggers**
- 2.5. Require Third-Party Audits for Facilities**

2.1. Incorporate Key Requirements from US EPA Refinery Sector Rule for Flares

Potential Concept Description

- Incorporate key operating requirements related to efficient combustion from the Refinery Sector Rule, which applies to petroleum refineries

Impacts

- Increase enforceability of federal regulation
- **Apply these requirements to all Bay Area refineries**

Context

- South Coast Rule 1118 and program improvements

Note: Text in bold indicates updates made since RTWG Meeting #4.

2.2. Establish New Annual Flare Limits

Potential Concept Description

- Annual limits under consideration:
 - SO₂ for non-hydrogen flares
 - NO_x for hydrogen flares
 - Vent gas volume
- Declining annual limit over time
- Application of the limit to emergency and non-emergency flaring

Impacts

- Reduce emissions and decreased frequency of flaring

Context

- South Coast Rule 1118 and program improvements

2.3. Require Mitigation Measures for Violations

Potential Concept Description

- Measures under consideration:
 - Emission reduction measures for violations, including annual limit
 - Detailed evaluation of potential emission reduction measures
 - Fee similar to South Coast Rule 1118
- More stringent measures greater the exceedances

Impacts

- Reduce emissions and decreased frequency of flaring

Context

- South Coast Rule 1118 and program improvements

2.4. Require Submittal of Causal Reports based on Additional Triggers

Potential Concept Description

- Additional triggers under evaluation:
 - Violations of the key operating parameters from US EPA Refinery Sector Rule
 - Other scenarios where causal reports may be warranted

Impacts

- Decrease the frequency of specific flaring event related to these triggers
- Expand the existing reporting requirements

Context

- South Coast Rule 1118 and program improvements

2.5. Require Third-Party Audits for Facilities

Potential Concept Description

- Audit triggers under evaluation:
 - Recurrent flaring from the same source/process area within a specified timeframe
 - Emergency flaring that exceed certain emission or vent gas volume thresholds
 - Air District determination that internal audits are insufficient

Impacts

- Reduce emissions and decreased frequency of flaring

Context

- Third-party audits have been routinely required under EPA Consent Decrees

Potential Concepts to Minimize Preventable Emissions and Frequency

Potential Concepts

- **Establishing limits and performance standards:**
 - 2.1. Incorporate Key Requirements from US EPA Refinery Sector Rule for Flares*
 - 2.2. Establish New Annual Flare Limits*
- **Requiring measures to minimize emissions and frequency based on causes of reportable flaring events, violations, and other triggers:**
 - 2.3. Require Mitigation Measures for Violations*
 - 2.4. Require Submittal of Causal Reports based on Additional Triggers*
 - 2.5. Require Third-Party Audits for Facilities**

Context

- *South Coast Rule 1118 and program improvements
- **EPA Consent Decrees and program improvements

Note: Text in bold indicates updates made since RTWG Meeting #4.

Rule Development and Public Engagement



Note:

CBO: Community-Based Organization
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Discussion

- 1. What questions should the concept paper help answer?*
 - 2. What information would help you better understand how this concept could be further developed?*
 - 3. What should the Air District investigate in the next phase of rule development?*
-

Closing & Next Steps



Next Steps

- *Air District staff will continue evaluating the potential rule amendment concepts for Rules 12-11 and 12-12.*
- *Input shared through the RTWG will help inform development of the concept paper and future rulemaking processes.*
- *The concept paper will be released for public review and comment.*
- *RTWG members and other stakeholders are encouraged to participate in the public process and submit comments when materials are released.*
- *Future opportunities for input will be shared through the Air District's rule development process.*
- *Future RTWG meetings may be planned for after the concept paper is published.*

Thank you for joining
the RTWG Meeting
#5!

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