Proposed Amended Rule 1118: Control of Emissions from Refinery Flares

Public Workshop

February 8, 2024

Join Zoom Webinar

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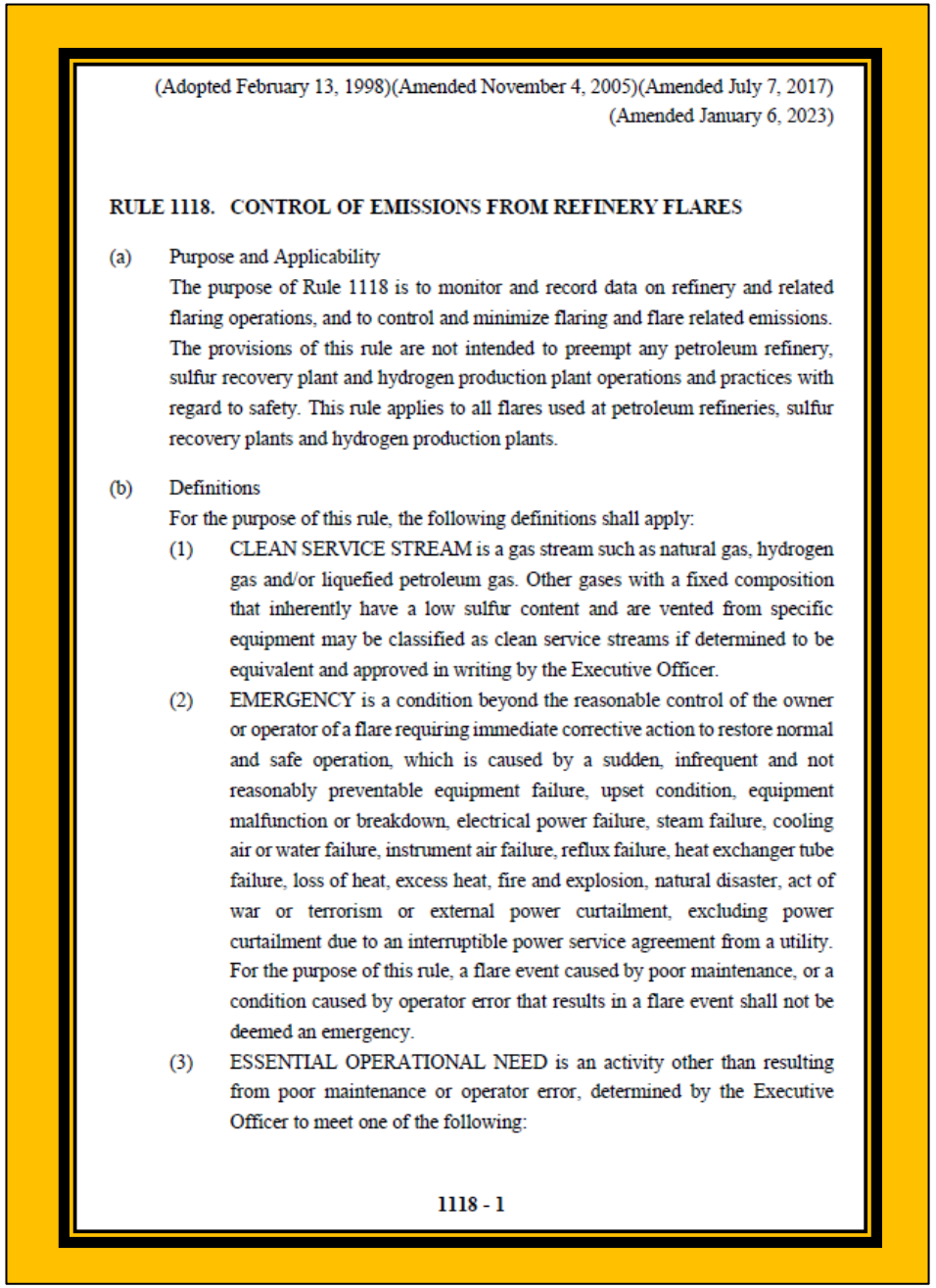
Agenda

- Rule 1118 Background
- Proposed Rule Language Overview
- Emission Reductions
- Socioeconomic Impacts
- California Environmental Quality Act (CEQA)
- Next Steps

Rule 1118 Background

Rule 1118 Background

- Rule 1118 was adopted on February 13, 1998, and was amended in 2005, 2017, and 2023
- The intent of Rule 1118 is to monitor and record data on refinery and related flaring operations, and to control and minimize emissions from refinery flares
- Rule 1118 requires facilities to submit notifications and reports, monitor emissions, meet emissions targets, and maintain a public inquiry hotline



(Adopted February 13, 1998)(Amended November 4, 2005)(Amended July 7, 2017)
(Amended January 6, 2023)

RULE 1118. CONTROL OF EMISSIONS FROM REFINERY FLARES

(a) Purpose and Applicability

The purpose of Rule 1118 is to monitor and record data on refinery and related flaring operations, and to control and minimize flaring and flare related emissions. The provisions of this rule are not intended to preempt any petroleum refinery, sulfur recovery plant and hydrogen production plant operations and practices with regard to safety. This rule applies to all flares used at petroleum refineries, sulfur recovery plants and hydrogen production plants.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) CLEAN SERVICE STREAM is a gas stream such as natural gas, hydrogen gas and/or liquefied petroleum gas. Other gases with a fixed composition that inherently have a low sulfur content and are vented from specific equipment may be classified as clean service streams if determined to be equivalent and approved in writing by the Executive Officer.

(2) EMERGENCY is a condition beyond the reasonable control of the owner or operator of a flare requiring immediate corrective action to restore normal and safe operation, which is caused by a sudden, infrequent and not reasonably preventable equipment failure, upset condition, equipment malfunction or breakdown, electrical power failure, steam failure, cooling air or water failure, instrument air failure, reflux failure, heat exchanger tube failure, loss of heat, excess heat, fire and explosion, natural disaster, act of war or terrorism or external power curtailment, excluding power curtailment due to an interruptible power service agreement from a utility. For the purpose of this rule, a flare event caused by poor maintenance, or a condition caused by operator error that results in a flare event shall not be deemed an emergency.

(3) ESSENTIAL OPERATIONAL NEED is an activity other than resulting from poor maintenance or operator error, determined by the Executive Officer to meet one of the following:

1118 - 1

Proposed Amended Rule 1118

PHASE I

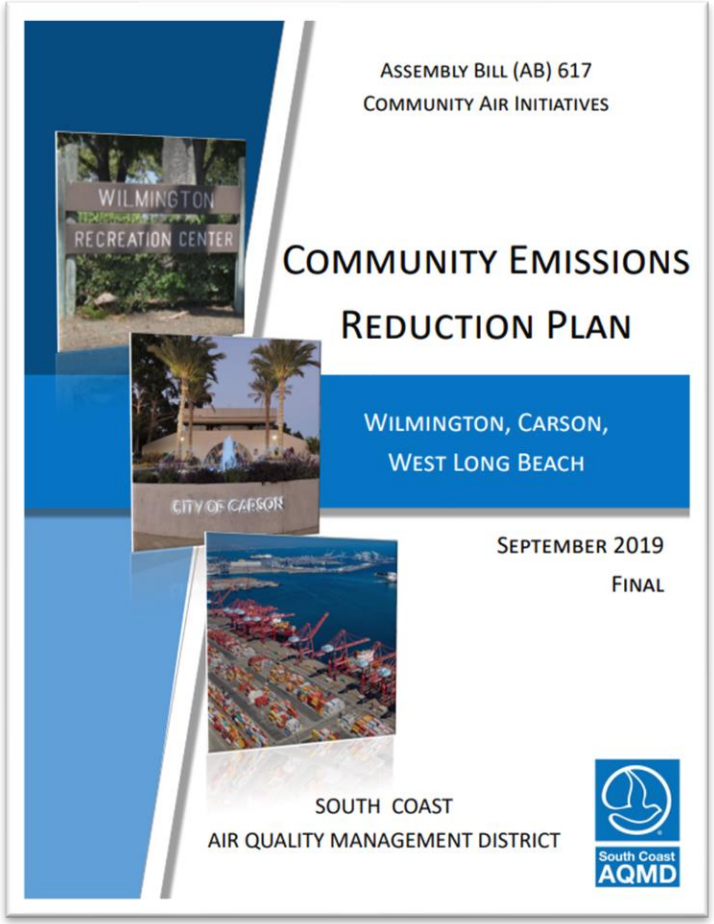
- The last major amendment to Rule 1118 was the 2017 amendment
  - The first phase of a planned two-phase amendment
  - Primarily focused on establishing mechanisms to gather more information through scoping documents prepared by the facilities
  - Incorporated the most significant portions of the U.S. EPA Refinery Sector Rule (RSR)

PHASE II

- PAR 1118 seeks to achieve further emission reductions from refinery flares
  - The second phase of the planned two-phase rule amendment
  - Relies upon the information gathered from the scoping documents from the 2017 amendment and South Coast AQMD staff's evaluation on flare emission reductions

AB 617 Background & Community Emissions Reduction Plan

- AB 617 signed into law in 2017
  - Statewide strategy to reduce toxic air contaminants and criteria pollutants in designated environmental justice communities
  - Establishes community-focused and community-driven actions to reduce air pollution and improve public health
- Community Emissions Reduction Plans (CERP) address air quality priorities of local communities
- Wilmington/Carson/West Long Beach is one of the first designated AB 617 communities
- Most of the Rule 1118 facilities are located in Wilmington/Carson/West Long Beach community



Affected Facilities and Equipment

- Eight petroleum refining facilities, three hydrogen plants, and one sulfur recovery plant within Los Angeles County operate a total of 31 flares subject to Rule 1118
- Wilmington/Carson/West Long Beach community contains:
  - 8 of 12 total facilities
  - 20 of 31 total flares

Facility Type	Facility Name	Number of Flares
Hydrogen Production Plant	Air Liquide	1
	Air Products Carson	1
	Air Products Wilmington	1
Refinery	Chevron Products Company	6
	AltAir Paramount	1
	Phillips 66 Carson	2
	Phillips 66 Wilmington	4
	Tesoro Carson	5
	Tesoro Wilmington	2
	Ultramar/Valero	4
	Torrance Refinery	3
Sulfur Recovery Plant	Tesoro Sulfur Recovery Plant	1
TOTAL	**12**	**31**

**Highlighted facilities located in AB617 WCWLB Communities*

AB 617 CERP Actions and Progress

Wilmington/Carson/West Long Beach CERP – Actions

Lower performance targets and/or increase mitigation fees	• Proposing to lower performance target • Proposing to increase mitigation fees using Customer Price Index
Additional flare minimization plans	• Proposed lower performance target will trigger more frequent FMP submittals

Increase capacity of vapor recovery systems to store gas during shutdowns	• Deemed infeasible:
	  • Recovered gases and vapors are not intended to be stored
	  • Large volume of stored gas can create an explosive environment

Header modifications for gas diversion with process controls	• Already required: 2005 rule amendment required modification of header to install or upgrade flare gas recovery systems
Remote optical sensing for flare emission characterization	• Deemed infeasible at this time: • Technology under review by U.S. EPA, but not approved
Lower-emission flaring technologies	• Flare header replacement/upgrade implemented during turnaround • Flare manufacturers improve design, efficiency, and performance
Back-up power systems for key process units	• Backup systems have been upgraded • One facility installed underground feeder lines at cost of $75 MM

Rule Development Public Process

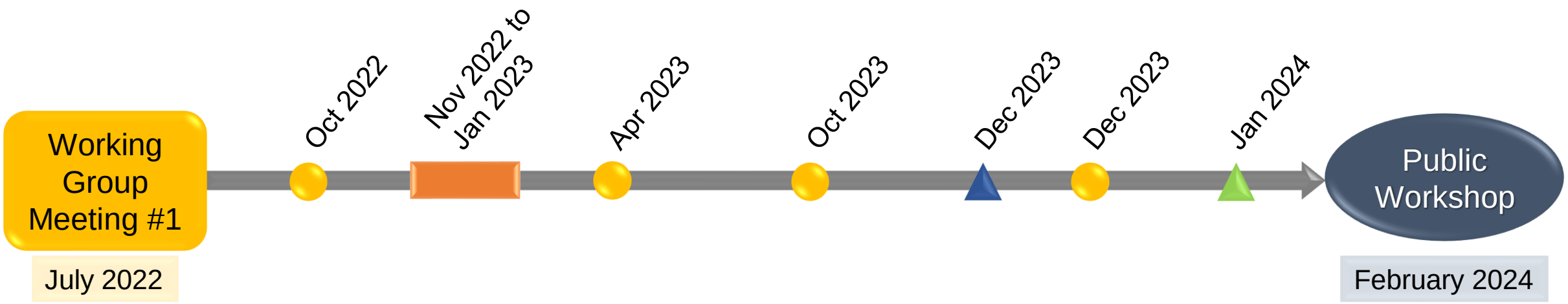


Chart Legend

- Working Group Meeting
- South Coast AQMD Staff's Visit to Facility Sites
- Release of Initial Preliminary Draft Rule Language
- Release of Preliminary Rule Amendment Documents

Staff will hold a Community Meeting on February 16th at 5:00 pm to provide members of the community an opportunity to learn more about the proposed amendments to Rule 1118

Proposed Rule Language Overview

Rule Structure Overview

Rule 1118

- (a) Purpose and Applicability
- (b) Definitions
- (c) Requirements
- (d) Performance Targets
- (e) Flare Minimization Plan
- (f) Flare Monitoring and Recording Plan Requirements
- (g) Operation, Monitoring and Recording Requirements
- (h) Recordkeeping Requirements
- (i) Notification and Reporting Requirements
- (j) Testing and Monitoring Methods
- (k) Exemptions
- Attachment A
- Attachment B

PAR 1118

- (a) Purpose
- (b) Applicability
- (c) Definitions
- (d) Requirements
- (e) Specific Cause Analysis Requirements
- (f) Performance Targets Requirements
- (g) Non-Hydrogen Clean Service Flares Requirements
- (h) Flare Minimization Plan Requirements and Schedule
- (i) Flare Monitoring and Recording Plan Requirements
- (j) Monitoring, Recordkeeping and Reporting Requirements
- (k) Testing and Monitoring Methods
- (l) Flare Event Notification Requirements
- (m) Exemptions
- Attachment A
- Attachment B
- Attachment C
- Attachment D

Summary of Key Rule Updates

Clarified and Streamlined Rule Language

- Consolidated rule provisions

Updated Rule Structure

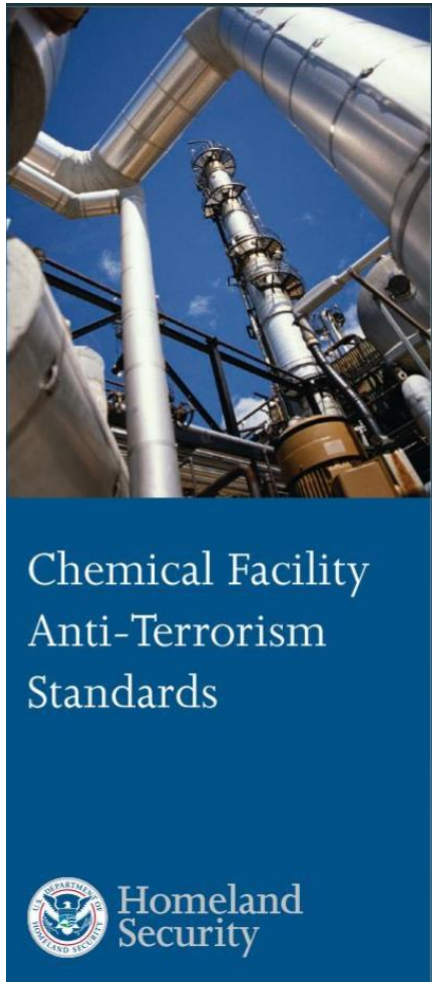
- Added two new attachments
- New subdivision for non-hydrogen clean service flare

Key New Proposed Rule Concepts and Updates

- Lower SO_2 performance target threshold
- New NOx performance target for hydrogen production plants
- New throughput threshold for non-hydrogen LPG clean service flares
- Increased mitigation fee when performance standards are exceeded
- Standardized reporting through Flare Event Notification System (FENS)

Other Considerations

- Staff initially considered requiring the owner or operator of facilities to post live flare images on FENS or another public webpage
- Concerns were raised with respect to the safety of streaming live flare images, potential security breaches, potential adverse market impacts, as well as complying with other existing regulations:
  - Chemical Facility Anti-Terrorism Standards (CFATS) administrated by Homeland Security
  - Infrastructure Security Agency (CISA)
  - U.S. Coast Guard (Maritime Law)
- Staff is no longer proposing to require live flare images



Subdivision (a) Purpose and Subdivision (b) Applicability

Staff divided "Purpose" and "Applicability" into separate subdivisions

(a) Purpose ~~and Applicability~~

The purpose of ~~Rule 1118~~ this rule is to monitor and record data on ~~refinery~~ Refinery and related flaring operations, and to control and minimize flaring and ~~flare~~ Flare-related emissions. The provisions of this rule are not intended to preempt the operations and practices of any ~~petroleum refinery~~ Refinery, ~~sulfur recovery plant~~ Sulfur Recovery Plant, ~~and~~ or ~~hydrogen production plant~~ Hydrogen Production Plant ~~operations and practices~~ with regard to safety. ~~This rule applies to all flares used at petroleum refineries, sulfur recovery plants and hydrogen production plants.~~

(b) Applicability

This rule applies to all Flares used at Refineries, Sulfur Recovery Plants, and Hydrogen Production Plants.

Subdivision (c) Definitions – New Definitions

Staff proposed to add the following definitions to the rule language:

- Alternative Feedstock
- Facility
- Flare Monitoring and Recording Plan (FMRP)
- Hydrogen Production Capacity
- Performance Target
- Processing Capacity
- Relative Cause
- Unplanned Flare Event

Staff proposed to remove the following definitions from the rule language:

- Notice of Sulfur Dioxide Exceedance

(5) FACILITY is any Refinery, Sulfur Recovery Plant, or Hydrogen Production Plant.

(11) FLARE MONITORING AND RECORDING PLAN (FMRP) is a compliance plan prepared by a Facility and approved by the Executive Officer that includes specifications and the process flow diagrams of Flare(s) identifying major components to meet the requirements in paragraph (i)(1).

(18) PERFORMANCE TARGET is an annual threshold on the amount of sulfur dioxide emissions or NOx Emissions calculated over one calendar year that can be emitted from a Facility before certain actions are triggered pursuant to paragraph (f)(4).

(21) PROCESSING CAPACITY is the amount of crude oil and/or alternative feedstocks, which includes organic material that is not derived from crude oil product, coal, Natural Gas, or any other fossil-fuel based organic material, that a Facility can process annually, pursuant to Attachment C.

~~(12) NOTICE OF SULFUR DIOXIDE EXCEEDANCE is a notice issued by the Executive Officer to the owner or operator when the petroleum refinery has exceeded a performance target of this rule.~~

Subdivision (c) Definitions – Definition of “Alternative Feedstock”

Staff added definition of “Alternative Feedstock” to ensure that the rule remains applicable to refineries that transition some or all their crude oil feedstock to alternatives

(1) ALTERNATIVE FEEDSTOCK is any feedstock, intermediate, product, or byproduct material containing organic material that is not derived from crude oil product, coal, natural gas, or any other fossil-fuel based organic material.

Subdivision (c) Definitions – Definition of “Essential Operation Need”

Staff updated definition of “Essential Operation Need” to align the language with the new proposed requirement for clean service flares located at refineries

~~(3)~~(4) ESSENTIAL OPERATIONAL NEED is an activity other than resulting from poor maintenance or operator error, determined by the Executive Officer to meet one of the following:

[...]

(C) Venting of ~~clean service streams~~ Clean Service Streams to a ~~clean service flare~~ Hydrogen Clean Service Flare, Non-Hydrogen Clean Service Flare, or ~~a general service flare~~ General Service Flare. ~~Routine v~~Venting of Clean Service Streams shall not be considered an Essential Operational Need when measure(s) has been implemented to reduce annual throughput pursuant to subdivision (g).

Subdivision (c) Definitions – Definition of "Flare"

- Current definition of "Flare" accounts for two types of flares
  - General Service Flares
  - Clean Service Flares
- Staff updated the definition to separate clean service flares that solely combust hydrogen streams from other clean service flares
  - PAR 1118 considers different requirements for clean service flares at refineries and hydrogen production plants

~~(4)~~(6) FLARE is a combustion device that uses an open flame to burn combustible gases with combustion air provided by uncontrolled ambient air around the flame. When used as a verb means the combustion of ~~vent gases~~ Vent Gas in a ~~flare~~ Flare ~~device~~. Based on their use, ~~flares~~ Flares are classified as:

~~(A) CLEAN SERVICE FLARE is a flare that is designed and configured by installation to combust only clean service streams.~~

~~(B)~~(A) GENERAL SERVICE FLARE ~~is a flare~~ that is not a Hydrogen Clean Service Flare or Non-Hydrogen Clean Service Flare;~~.~~

(B) HYDROGEN CLEAN SERVICE FLARE that is designed and configured by installation to combust only Clean Service Streams from a Hydrogen Production Plant; or

(C) NON-HYDROGEN CLEAN SERVICE FLARE that is designed and configured by installation to combust only Clean Service Streams from a Facility other than Hydrogen Production Plant.

Subdivision (c) Definitions – Definition of “Flare Event”

- Current definition of “Flare Event” is not comprehensive to both planned and unplanned events
- Moved the language to determine the start and end of a flare event to Subdivision (d) – Requirements
- Moved the requirements for reporting flare events to Subdivision (l) – Flare Event Notifications Requirements

~~(5)~~(7) FLARE EVENT is any ~~intentional or unintentional~~ planned or unplanned combustion of ~~vent gas~~ Vent Gas in a ~~flare~~ Flare. ~~The start is determined by the vent gas flow velocity exceeding 0.10 feet per second and the end is determined when the vent gas flow velocity drops below 0.12 feet per second, or when the owner or operator can demonstrate that no more vent gas was combusted based upon the monitoring records of the flare water seal level and/or other parameters as approved by the Executive Officer in the Flare Monitoring and Recording Plan as described in subdivision (f). For flare events that can be attributed to the same process unit(s) or equipment and has more than one start and end within a 24 hour period, it shall be considered a continuation of the same event, and not a separate or unique event. For a flare event that continues for more than 24 hours, each calendar day of venting of gases shall constitute a flare event.~~

Subdivision (c) Definitions – Definition of “Flare Tip Velocity”

Staff updated definition of “Flare Tip Velocity” to incorporate U.S. EPA RSR

- Added the reference to Title 40 of the Code of Federal Regulations Part 63 Subpart CC

(13) FLARE TIP VELOCITY is the velocity of ~~flare~~ Flare gas~~es~~ stream exiting a ~~flare~~ Flare tip averaged over 15 minute time periods, starting at 12 midnight to 12:15 am, ~~12:15 am to 12:30 am, and so on,~~ and concluding at 11:45 pm to midnight, and calculated as the volumetric flow of Vent Gas divided by the cross sectional area of the ~~flare~~ Flare tip, as specified in Title 40 of the Code of Federal Regulations Part 63 Subpart CC – National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries.

Subdivision (c) Definitions – Definition of Planned and Unplanned Flare Events

Update Definition – Planned Flare Event

- Added the term “scheduled”
- Moved the provision to determine “when to consider a startup process as a *planned* event after the end of an *unplanned* event” to Subdivision (d) – Requirements

~~(15)~~(20) PLANNED FLARE EVENT is any flaring of Vent Gas as a result ~~from process unit(s) or equipment~~ of scheduled ~~startup~~ Startup, ~~shutdown~~ Shutdown, ~~turnaround~~ Turnaround, ~~maintenance, clean up~~ LPG tank cleaning, ~~and~~ or non-emergency flaring of any process unit or equipment. ~~Flaring from the startup of a process unit or equipment that is more than 36 hours after the end of an unplanned flare event of that same process unit shall be considered a Planned Flare Event.~~

New Definition – Unplanned Flare Event

- Unplanned flare event shall exclude flaring during any operation qualified to be reported as “planned flare event”

(33) UNPLANNED FLARE EVENT is any flaring of Vent Gas during operations such as unplanned Shutdown, subsequent Startup, valid breakdown, unforeseen maintenance, customer order kick back, or as a result of any situation beyond the operator’s control including external power curtailment, natural disasters, acts of war or terrorism.

Subdivision (c) Definitions – Definition of “Refinery”

Staff amended the definition of “Petroleum Refinery” to include a facility that is permitted to process and refine “*Alternative Feedstocks*”

(25) REFINERY is a Facility that is permitted to Refine crude oil, as defined in the Standard Industrial Classification Manual as Industry No. 2911 and/or a facility that is permitted to Refine Alternative Feedstocks. All portions of the refining operation, including those at non-contiguous locations operating Flares, shall be considered as one Refinery.

Subdivision (c) Definitions – Definition of "Relative Cause"

Staff added the definition of "Relative Cause"

- Refer to Preliminary Draft Staff Report Table 2-1 for the complete list of relative causes (15 codes)

(26) RELATIVE CAUSE is the identified category for the cause of any Flare Event where more than 5,000 cubic feet of Vent Gas is combusted at the flare, including Emergency, Shutdown, Startup, Turnaround, Essential Operational Need, or unknown if undeterminable.

Table 2-1. Categories for Relative Cause of Flare Events

Cause Codes	Description
Code 0	Undetermined (use only if flow was more than 5,000 but smaller than or equal to 500,000 scf, and a cause analysis did not reveal a cause)
Code 1	Turnaround Activity (Excluding planned maintenance and planned start-ups and shutdowns)
Code 2	Planned Maintenance (Excluding turnarounds, and planned start-ups and shutdowns)
Code 3	Emergency Flaring (includes any unplanned shutdown, subsequent start-up, valid breakdown, etc.)
Code 4	Planned Start-up or Shutdown (Excluding planned maintenance and turnarounds)
Code 5	EON - Relief Valve Leakage due to malfunction
Code 6	Non-Emergency Flaring (For use only if no other code is the primary cause of the flare event)
Code 7	Process Vent (i.e., facilities/units with no vapor recovery installed) – use only if flow was more than 5,000 but smaller than or equal to 500,000 scf
Code 8	EON - Temporary Fuel Gas Imbalance
Code 9	Code unassigned - Reserved for future use
Code 10	Minor Vent (may only be used for vent gas flow less than 5,000 scf)
Code 11	EON - Unrecoverable Stream
Code 12	EON - Clean Service Stream
Code 13	EON - Intermittent Minor Venting
Code 14	EON - Pressure/Temperature Excursion
Code 15	Purge Gas (i.e., refinery fuel gas, no flare gas recovery installed)

Subdivision (d) Requirements

- Streamlined the rule language to list all operational requirements in paragraph (d)(1)
- Moved part of the provisions related to specific cause analysis to a new subdivision
  - Subdivision (e) – Specific Cause Analysis Requirements
- Moved the monitoring and recordkeeping requirements to Subdivision (j)
- Removed outdated provisions
  - Outdated requirements to prepare and submit scoping document

~~(13) Submit to the Executive Officer 12 months after July 7, 2017 a Scoping Document that evaluates the feasibility of minimizing flaring emissions that includes the following components:~~

~~(A) The Scoping Document shall describe how a facility operator or owner can reduce emissions from all planned flare events and essential operational needs flare events, to emission limits specified in subparagraph (c)(13)(B). The Scoping Document shall describe two potential alternatives for each applicable level in (c)(13)(B)(i) through (iv), and shall include an analysis of the following:~~

~~(i) proposed physical controls and/or operating practices,~~

~~(ii) technical feasibility constraints,~~

~~(iii) approximate cost (initial capital and ongoing),~~

~~(iv) timing constraints.~~

~~(B) The Scoping Document shall analyze the feasibility of achieving~~

Subdivision (d) Requirements – *cont.*

Staff updated the requirement for calculating the maximum flare tip velocity to incorporate U.S. EPA RSR

- Added the reference to Title 40 of the Code of Federal Regulations Part 63 Subpart CC
- Added the reference to "Flare Monitoring System Requirements" for determination of concentration of individual components in the vent gas and net heating value of the vent gas, if applicable

~~(3)~~(C) Except as specified in ~~(e)(10)~~ paragraph (d)(7), operate all ~~general service flares~~General Service Flares at ~~petroleum refineries~~ Facilities such that the ~~flare tip velocity~~ Flare Tip Velocity is less than~~:~~

~~(A)~~ 60 feet per second, or the lesser of 400 feet per second and V_{Max}, where:

$$\text{Log}_{10}(V_{Max}) = \frac{\text{Net Heating Value}_{\text{Vent Gas}} + 1{,}212}{850}$$

and the Net Heating $\text{Value}_{\text{Vent Gas}}$ in ~~British Thermal Units~~ Btu per standard cubic foot is determined and calculated as specified in Title 40 of the Code of Federal Regulations Part 63 Subpart CC and ~~pursuant to monitoring required in subdivision (g)~~ paragraph (j)(5).

Subdivision (d) Requirements – *cont.*

Staff added the requirement for the record of relative cause analysis to be retained for a period of five years

~~(11)~~(10) The owner or operator of a Facility shall ~~C~~conduct an analysis and determine the ~~relative cause~~ Relative Cause of any ~~other flare events~~ Flare Event where more than 5,000 standard cubic feet of ~~vent gas~~ Vent Gas ~~are~~ is combusted at the Flare and report the Relative Cause in the quarterly reports pursuant to subparagraph (j)(13)(D), and ~~. W~~when it is not feasible to determine the ~~relative cause~~ Relative Cause, state the reason why it was not feasible to make the determination and retain the records of the Relative Cause analysis pursuant to paragraph (j)(12).

Subdivision (e) Specific Cause Analysis Requirements

Staff added new provisions to incorporate U.S. EPA RSR

- Specific cause analysis is required to be conducted separately for each flare with a flare event that meets the criteria in paragraph (d)(6) during the same period
- Specification is provided for situations where a single specific cause analysis is deemed sufficient for flare events that involve exceedance of multiple operational limits at one or more flares

(e) Specific Cause Analysis Requirements

(1) The owner or operator of a Facility may conduct a single Specific Cause Analysis for any single Flare Event that:

(A) Exceeds the Smokeless Capacity of the Flare, the visible emission limit in subparagraph (d)(1)(B) or Rule 401, and the Flare Tip Velocity limit in subparagraph (d)(1)(C);

(B) Includes more than one 15-minute block period in which the Flare Tip Velocity was exceeded or more than one 2-hour period that contains more than 5 minutes of visible emissions;

(C) Causes two or more Flares that are operated in series (i.e., cascaded Flare systems) to have a Flare Event meeting the criteria in paragraph (d)(6); or

(D) Causes two or more Flares to have a Flare Event meeting the criteria in paragraph (d)(6), regardless of the configuration of the Flares, if the cause is reasonably expected to be an external power curtailment beyond the operator's control (excluding interruptible service agreements), natural disasters or acts of war or terrorism.

(2) Except as provided in paragraphs (e)(1), if more than one Flare has a Flare Event that meets the criteria in paragraph (d)(6) during the same time period, an initial Specific Cause Analysis shall be conducted separately for each Flare that has a Flare Event meeting the criteria in paragraph (d)(6). If the initial Specific Cause Analysis indicates that the Flare Events have the same root cause(s), the initially separate Specific Cause Analyses may be recorded as a single Specific Cause Analysis and a single corrective action analysis may be conducted.

Subdivision (e) Specific Cause Analysis Requirements – *cont.*

Other provisions and requirements related to specific cause analysis shown as underlined text is existing rule language that was moved down from "Requirements Subdivision"

(3) The owner or operator of a Facility shall submit the Specific Cause Analysis report for any Flare Event as required by paragraph (d)(5) or (d)(6) to the Executive Officer within 30 days of the start of the Flare Event pursuant to paragraph (j)(17) or (j)(18) and include all the following:

(A) The cause and duration of the Flare Event; and

(B) Any mitigation and corrective actions taken or to be taken to prevent recurrence of a similar event.

(4) The owner or operator may request that the Executive Officer grant an extension of up to 15 days to submit the Specific Cause Analysis report required pursuant to paragraph (d)(5).

Subdivision (f) Performance Targets Requirements

- Updated SO_2 performance target requirement to gradually decrease over time
- Staff proposed to change the reference for facility processing capacity from "calendar year 2004" to "as listed in the California Energy Commission's list of California Oil Refinery Locations and Capacities for each calendar year, or as reported by the facility" (Attachment C)

Paragraph (f)(1)(A)

TABLE 1 – Performance Target Schedule for Sulfur Dioxide

SO_2 Performance Target (Ton per Million Barrels)	Effective Date
0.5	Calendar Year 2024
0.35	Calendar Year 2026
0.25	Calendar Year 2028 and after

Attachment C

Table C1 – Processing Capacity of Refineries

Facility	Processing Capacity (Barrels per Day)
AltAir Paramount	Pursuant to Paragraph (j)(20)
Chevron USA Inc.	269,000
Marathon (Carson, Wilmington, SRP)	363,000
Phillips 66 (Carson, Wilmington)	139,000
Torrance Refining Co.	160,000
Valero	85,000

Subdivision (f) Performance Targets Requirements – *cont.*

- Staff proposed a performance target of 0.30 pounds of NOx per hydrogen production capacity (MMscf) to control emissions from hydrogen clean service flares
  - Flares that are solely used for vent gas streams from hydrogen production plants
- Attachment C Table C2 lists production capacities for hydrogen production plants

Attachment C

Table C2 – Production Capacity of Hydrogen Production Plants

Hydrogen Production Plant	Hydrogen Production Capacity (Million Standard Cubic Feet per Day)
Air Liquide	90
Air Product – Carson	96
Air Product - Wilmington	88
Chevron USA Inc.	72

Subdivision (f) Performance Targets Requirements – *cont.*

- Rule 1118 requires facilities to submit Flare Minimization Plan (FMP) and mitigation fees within 90 days following the end of the calendar year when a performance target was exceeded
- Staff proposed a separate schedule for submission of FMP and mitigation fees for a facility that may not meet the 90-day schedule due to a data substitution application for invalid monitoring data that is pending approval by South Coast AQMD – Subparagraph (f)(4)(B)

(B) If there are any periods of invalid monitoring data within the calendar year, the owner or operator of the Facility shall:

(i) Within 90 days following the end of ~~a~~ the calendar year for which the Performance Target was exceeded, submit supporting data to demonstrate ~~the~~ annual flare emissions, including any alternative data substitution pursuant to Attachment B: Guidelines for Emissions Calculations (Attachment B), for approval by the Executive Officer;

(ii) If the alternative data substitution submitted pursuant to clause (f)(4)(B)(i) is not approved within 12 months of submittal, the standard data substitution procedures in Attachment B shall apply;

(iii) Within 14 months of submitting supporting data pursuant to clause (f)(4)(B)(i), if the applicable data confirms the Facility's exceedance from the applicable Performance Target:

(A) Submit a Flare Minimization Plan pursuant to paragraph (h)(1); and

(B) Pay the South Coast AQMD mitigation fees, for the calendar year for which the Performance Target was exceeded, according to the schedule in Attachment D.

Subdivision (f) Performance Targets Requirements – Mitigation Fees

- Staff transferred provisions for calculating mitigation fees to Attachment D to include:
  - Calculations of facility-specific performance targets
  - New baseline mitigation fees based on Consumer Price Index (CPI) for 2022
  - Methodology to adjust the fees annually

Attachment D

3. Calculations for Baseline Mitigation Fees

The baseline mitigation fees shall be calculated according to the following schedule:

a) If excess sulfur dioxide emissions or NOx Emissions are no more than ten percent of the Facility-specific Performance Target, $39,000 per ton of the sulfur dioxide emissions or NOx Emissions in excess of the Facility-specific Performance Target;

b) If excess sulfur dioxide emissions or NOx Emissions are greater than ten percent but no more than twenty percent of the Facility-specific Performance Target, $79,000 per ton of the sulfur dioxide emissions or NOx Emissions in excess of the Facility-specific Performance Target; or

c) If excess sulfur dioxide emissions or NOx Emissions are greater than twenty

158,000 per ton of the

of the Facility-specific

Excess Emissions (%)	Mitigation Fees ($/ton of Excess SO_2)	
	Rule 1118	PAR 1118
≤10	25,000	39,000
>10 to ≤20	50,000	79,000
>20	100,000	158,000

Subdivision (f) Performance Targets Requirements – Mitigation Fees

- Staff proposed the mitigation fees to be adjusted annually using CPI for the calendar year that the performance target was exceeded, or the most recently available CPI

Attachment D

4. Calculations for Adjusted Mitigation Fees

The baseline mitigation fees shall be adjusted for the calendar year that the Performance Target was exceeded to account for any change in the consumer price index (CPI), according to the following equation:

$$\text{Adjusted Mitigation Fees} = \text{Baseline Mitigation Fees} \times \frac{\text{Reporting Year CPI}}{\text{2022 CPI}}$$

Where:

Adjusted Mitigation Fees	=	Mitigation fees due to pay to South Coast AQMD for exceeding the Performance Target, in USD
Baseline Mitigation Fees	=	Mitigation fees, as calculated pursuant to Attachment D, Part (3), in USD
Reporting Year CPI	=	CPI for the calendar year that the Performance Target was exceeded or the most recently available CPI, as determined by State of California Department of Industrial Relations
2022 CPI	=	319.224

Subdivision (g) Non-Hydrogen Clean Service Flares Requirements

New subdivision (g)

- Requirement added for submitting a permit application for owner or operator of LPG flares that have exceeded the proposed throughput threshold in any two consecutive years preceding rule adoption since 2017
  - Staff proposed the annual throughput level with total heat content (based on higher heating value) of 15,000 MMBtu/year
  - Included requirements and schedule to install equipment or implement changes to reduce flaring emissions

(g) Non-Hydrogen Clean Service Flares Requirements

(1) An owner or operator of a Refinery with a Non-Hydrogen Clean Service Flare that exceeded an annual throughput level with total heat content (based on higher heating value) of 15,000 MMBtu per year for any two consecutive years prior to [*Date of Rule Adoption*] since 2017 shall:

(A) Within 12 months from [*Date of Rule Adoption*] submit to the Executive Officer a complete permit application to install equipment or implement changes to reduce the annual throughput to a level with total heat content (based on higher heating value) not to exceed 15,000 MMBtu; and

(B) No later than 12 months from the date that the permit is issued, install equipment or implement changes to reduce the annual throughput to a level with total heat content (based on higher heating value) not to exceed 15,000 MMBtu.

Subdivision (g) Non-Hydrogen Clean Service Flares Requirements – *cont.*

- Requirement added for LPG clean service flares to maintain LPG clean service flares to meet the proposed annual throughput threshold
- This requirement will be effective when owners or operators of LPG flares report emissions from these flare for calendar year 2026
  - For any facility that the owner or operator is required to submit a permit application to install equipment or implement changes for an LPG flare, the effective date of this provision is "12 months after the permit is issued"

(2) Effective January 1, 2026 or 12 months after permit is issued pursuant to subparagraph (g)(1)(A), whichever occurs later, the owner or operator of a Refinery that exceeds an annual throughput level with total heat content (based on higher heating value) of 15,000 MMBtu per year at each Non-Hydrogen Clean Service Flare for two consecutive calendar years shall submit a Flare Minimization Plan pursuant to paragraph (h)(2).

Subdivision (h) Flare Minimization Plan Requirements and Schedule

- Requirement to submit a Flare Minimization Plan (FMP) has been expanded to be applicable to:
  - SO_2 performance standard for general service flares
  - NOx performance standard for hydrogen clean service flares
  - Annual throughput threshold at non-hydrogen clean service flares

(2) The owner or operator of a Refinery that exceeds the annual throughput threshold pursuant to paragraph (g)(2) shall:

(A) No later than 90 days from the end of the second consecutive calendar year, submit a Flare Minimization Plan, or a complete revised Flare Minimization Plan for the owner or operator of a Facility with an existing approved Flare Minimization Plan, for review by the Executive Officer. The Flare Minimization Plan shall list all specific procedure changes to be implemented by the Facility to meet the annual throughput threshold in paragraph (g)(2), and shall include the following information:

(i) List of corrective action(s), including but not limited to applicable technology(s) or technique(s), that will be used to reduce the amount of combusted Vent Gas in the Non-Hydrogen Clean Service Flare to below the threshold; and

(ii) the schedule to implement the action(s);

(B) Implement the corrective action(s) in compliance with the schedule provided pursuant to subparagraph (h)(2)(A).

Subdivision (i) Flare Monitoring and Recording Plan Requirements

- Staff streamlined the language in this subdivision
- No new requirement or consideration was proposed
- Provisions related to commencement of operations were moved to Subdivision (d) – Requirements

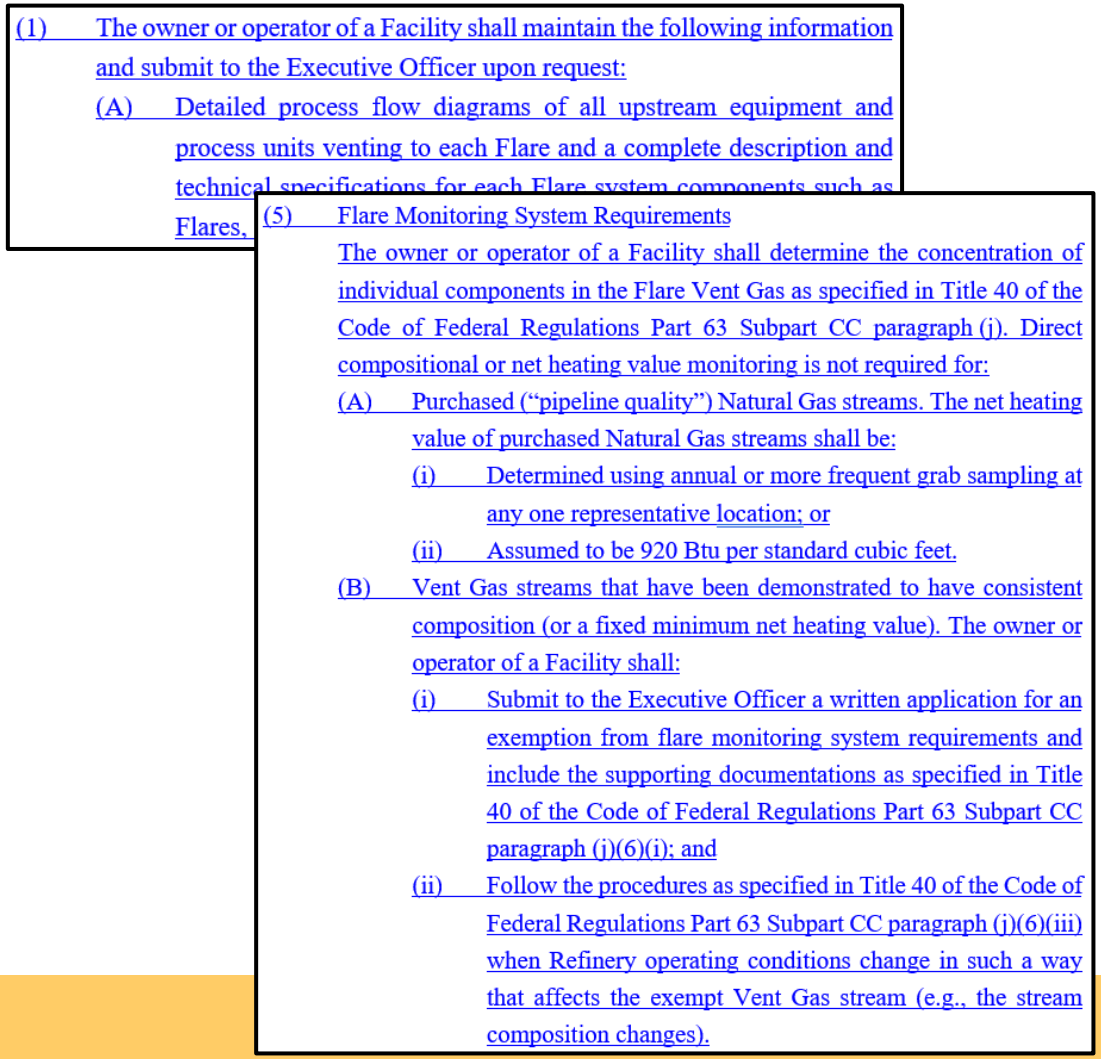
~~(3) The owner or operator of a new or an existing non-operating petroleum refinery, sulfur recovery plant or hydrogen production plant starting or restarting operations that were not shut down from a turnaround or other shut-down as part of normal operations on or after July 7, 2017 shall:~~

~~(A) Provide the Executive Officer a written notice of the date of start-up no later than seven (7) days prior to starting or commencing operations.~~

~~(B) No later than 180 days prior to the initial startup or resumption of operations, submit a complete application and appropriate fees for a Flare Monitoring and Recording Plan to the Executive Officer for approval. This plan shall constitute a plan pursuant to Rule 221 and~~

Subdivision (j) Monitoring, Recordkeeping, and Reporting Requirements

- Staff streamlined MRR-related language from “Requirements” to “MRR” subdivision, paragraph (j)((1)
- Staff added a new provision to incorporate U.S. EPA RSR requirements for flare vent gas composition monitoring that may be used to calculate net heating value of vent gas – paragraph (j)(5)



(1) The owner or operator of a Facility shall maintain the following information and submit to the Executive Officer upon request:

(A) Detailed process flow diagrams of all upstream equipment and process units venting to each Flare and a complete description and technical specifications for each Flare system components such as Flares,

(5) Flare Monitoring System Requirements

The owner or operator of a Facility shall determine the concentration of individual components in the Flare Vent Gas as specified in Title 40 of the Code of Federal Regulations Part 63 Subpart CC paragraph (j). Direct compositional or net heating value monitoring is not required for:

(A) Purchased (“pipeline quality”) Natural Gas streams. The net heating value of purchased Natural Gas streams shall be:

(i) Determined using annual or more frequent grab sampling at any one representative location; or

(ii) Assumed to be 920 Btu per standard cubic feet.

(B) Vent Gas streams that have been demonstrated to have consistent composition (or a fixed minimum net heating value). The owner or operator of a Facility shall:

(i) Submit to the Executive Officer a written application for an exemption from flare monitoring system requirements and include the supporting documentations as specified in Title 40 of the Code of Federal Regulations Part 63 Subpart CC paragraph (j)(6)(i); and

(ii) Follow the procedures as specified in Title 40 of the Code of Federal Regulations Part 63 Subpart CC paragraph (j)(6)(iii) when Refinery operating conditions change in such a way that affects the exempt Vent Gas stream (e.g., the stream composition changes).

Subdivision (j) Monitoring, Recordkeeping, and Reporting Requirements – *cont.*

- Removed outdated language
- Clarified rule language on requiring one camera per each flare to monitor flare's visible emissions

~~(7)~~(9) ~~Monitor all flares for visible emissions using color video monitors with date and time stamp, capable of recording a digital image of the flare and the flame of flares that are not enclosed, at a rate of no less than one frame per minute. Effective January 30, 2019,~~ The owner or operator of a Facility shall monitor all ~~flares~~ Flares for visible emissions using one camera per each Flare and color video monitors with date and time stamp, capable of recording a digital image of the ~~flare~~ Flare, the flame of ~~flares~~ Flares that are not enclosed, and a sufficient area above the flame of all ~~flares~~ Flares that is suitable for visible emissions observations, at a ~~rate~~ frequency of no less than one frame every 15 seconds.

Subdivision (j) Monitoring, Recordkeeping, and Reporting Requirements – *cont.*

- Staff proposed to:
  - Remove on/off flow indicator (Table 2) for any type of flare
  - Require continuous flow meter for all types of flares
  - Require "Annual Emissions and Throughput Reporting" for a facility that exceeds the applicable performance target or the annual throughput threshold

(10) Effective on [*Date of Rule Adoption*] for General Service Flares, and effective six months from [*Date of Rule Adoption*] for Hydrogen Clean Service Flares, the owner or operator of a Facility ~~All general service flares~~ shall:

(A) Have a flow meter installed in a manner and at a location that ~~would~~ allows for accurate measurements of the total volume of ~~vent gas~~ Vent Gas to each ~~flare~~ Flare. If the flow meter cannot be placed in the location that ~~would~~ allows for accurate measurement due to physical constraints, the owner or operator shall retrofit or equip the existing flow meter(s) with totalizing capability to indicate the true net volume of gas flow to each ~~flare~~ Flare~~.~~; and

(14) Annual Emissions and Throughput Reporting

The owner or operator of a Facility that exceeds the applicable Performance Target in subparagraph (f)(1)(A) or (f)(2)(A), or the annual throughput threshold in subdivision (g) for any calendar year shall submit records of annual sulfur dioxide emissions, annual NOx emissions, or annual throughput, as applicable, in an electronic format approved by the Executive Officer using FENS within 30 days after the end of each calendar year.

Subdivision (j) Monitoring, Recordkeeping, and Reporting Requirements – *cont.*

- Staff proposed the requirement to submit preliminary flare event data monthly and report more detailed flare event data quarterly
  - Making preliminary data available to the public sooner than quarterly data reports
  - Data to be flagged as preliminary
  - Allowing for some flare event details (e.g., cause) not to be reported in preliminary data
  - Allow facilities the ability to go back and update data

(16) Monthly Emissions Reports

The owner or operator of a Facility shall submit a monthly report in an electronic format approved by the Executive Officer using FENS within 30 days after the end of each month, flagged as preliminary data in writing by the responsible Facility official and include all the following information that is available to the best of the owner or operator's knowledge:

(A) The information required to be monitored under paragraph (j)(3);

(B) The description of the cause of each Flare Event as analyzed pursuant to paragraphs (d)(5), (d)(6), and/or (d)(10);

(C) The category of each Flare Event such as Emergency, Shutdown, Startup, Turnaround, Essential Operational Need, or other specific cause(s); and

(D) The associated emissions.

(17) Specific Cause Analysis Reports

The owner or operator of a Facility shall submit Specific Cause Analysis reports as required by paragraph (d)(5) or (d)(6) and record of completed corrective actions as required by paragraph (e)(5) in an electronic format approved by the Executive Officer using FENS pursuant to the schedule in paragraph (e)(3), (e)(4), or (e)(5).

Subdivision (j) Monitoring, Recordkeeping, and Reporting Requirements – *cont.*

- Staff proposed to require electronic submission of quarterly report, monthly emissions reports, and specific cause analysis reports through:
  - FENS or if system is down
  - Email address or other electronic methods, e.g., if file it too large to email
- Requirement added for the owner or operator of facilities to report *Processing Capacity* if value is listed in Attachment C Table C1

(18) If FENS is not available, or if functions within FENS do not allow facilities to enter the necessary information required in paragraphs (j)(14) through (j)(17), the owner or operator of a Facility shall provide the information required in paragraphs (j)(14) through (j)(17) by emailing to Rule1118@aqmd.gov or an alternative method as approved by the Executive Officer.

(20) For a Facility with no Processing Capacity determined pursuant to Attachment C Table C1, the owner or operator of a Facility shall report to the Executive Officer the Processing Capacity in million barrels for the prior calendar year within 30 days of the end of every calendar year.

Subdivision (k) Testing and Monitoring Methods

- Moved up the subdivision to follow "Monitoring, Recordkeeping and Reporting Requirements"
- Added references to Rule 218.2 and Rule 218.3
  - CEMS subject to Rule 2012 must be certified pursuant to the implementation schedule in paragraph (d)(3) of Rules 218.2 and 218.3

(3) Continuous monitoring systems certified under Rule 2011 – Requirements for Monitoring, Reporting and Recordkeeping of Oxides of Sulfur (SOx) Emissions, Rule 2012 – Requirements for Monitoring, Reporting and Recordkeeping of Oxides of Nitrogen (NOx) Emissions, Rule 218.2 – Continuous Emission Monitoring System: General Provisions (Rule 218.2), and Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications (Rule 218.3), may be used for the monitoring of Vent Gases.

Subdivision (l) Flare Event Notifications Requirements

- Staff proposed to clarify and align the one-hour flare notification requirement for planned and unplanned flare events
- Staff added the requirement for notification within 24 hours upon:
  - End of a flare event
  - Smokeless capacity exceedance

(2) The owner or operator of a Facility shall provide notifications for any Planned or Unplanned Flare Event ~~Notify the Executive Officer~~ via ~~the Web-Based Flare Event Notification System~~ FENS:

(A) ~~w~~Within one hour of ~~from the start of any unplanned flare event with emissions~~ exceeding ~~either~~ at least one of the following thresholds:

(i) 100 pounds of VOC emissions;

(ii) ~~or~~ 500 pounds of sulfur dioxide emissions;~~,~~ or ~~exceeding~~

(iii) 500,000 standard cubic feet of flared ~~vent gas~~ Vent Gas.

(B) Within 24 hours of the end of the Flare Event indicating:

(i) The Flare Event has ended; and

(ii) If the Flare Event exceeded the Smokeless Capacity.

Subdivision (l) Flare Event Notifications Requirements – *cont.*

- No change for the 24-hour notification requirement, language has been restructured
  - One-hour requirement moved to same provision as unplanned notification requirement (discussed in prior slide)

(3) Planned Flare Event Notifications

The owner or operator of a Flare shall provide notifications ~~Notify the Executive Officer~~ via ~~the Web-Based Flare Event Notification System~~ FENS at least 24 hours prior to the start of a ~~planned flare event~~ Planned Flare Event ~~with emissions~~ anticipated to exceed~~ing either 100 pounds of VOC or 500 pounds of sulfur dioxide, or 500,000 standard cubic feet of combusted vent gas~~ any of the following thresholds:. ~~Within one hour of the start of a planned flare event, submit a notification via the Web-Based Flare Event Notification System, referencing the notification number assigned to the planned flare event at the time of the original notification.~~

Subdivision (l) Flare Event Notifications Requirements – *cont.*

Clarified notification requirements for unplanned flare events that last longer than 24 hours

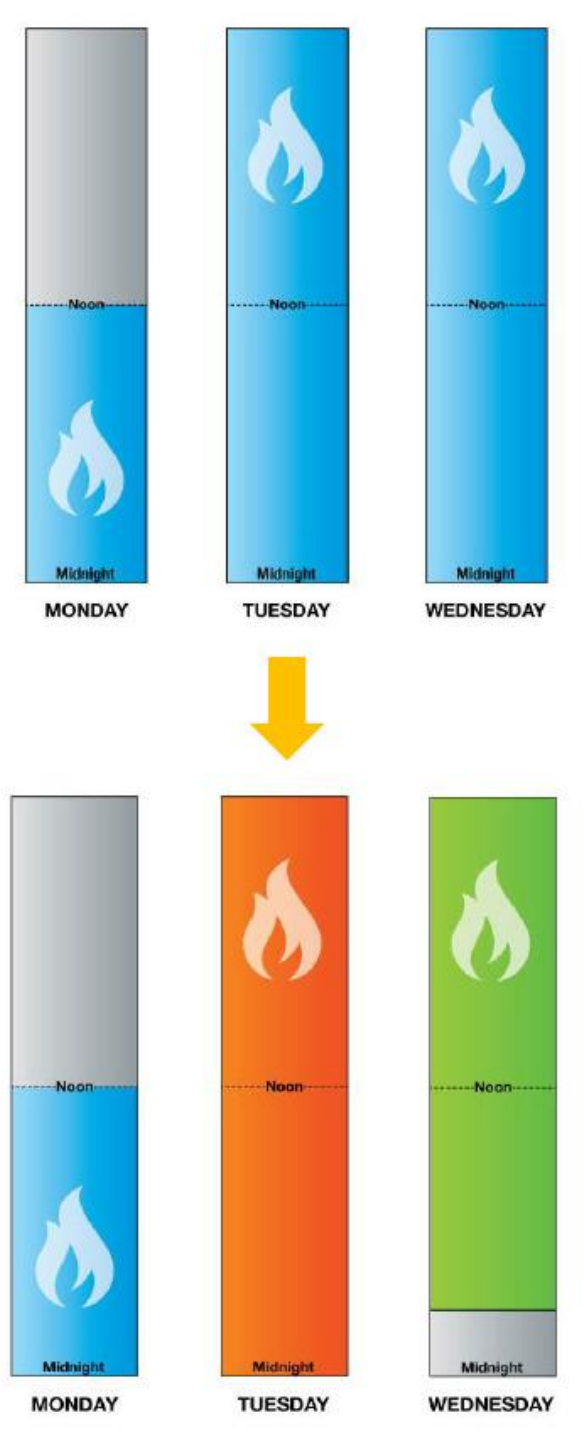
- Any unplanned flare event must end after 24 hours, and a new flare event must be generated every calendar day

(4) Unplanned Flare Event Notifications

If the Unplanned Flare Event is anticipated to last longer than 24 hours, the owner or operator of the Facility shall:

(A) End the current Unplanned Flare Event in FENS at the end of the starting calendar day; and

(B) Generate a new Unplanned Flare Event notification in FENS for every calendar day of flaring afterward.



Subdivision (l) Flare Event Notifications Requirements – *cont.*

- Moved all requirements for flare event characterization to this subdivision
  - Current rule language includes these requirements in definition of a flare event
- Moved quarterly reports requirements to MRR Subdivision

(6) Characterizing and Reporting Flare Events

The owner or operator of a Facility shall characterize and report any Flare Event that exceeds any of the thresholds listed in subparagraph (l)(2)(A) as follows:

(A) A Flare Event due to the Startup of a process unit or equipment that occurs more than 36 hours after the end of an Unplanned Flare Event of the same process unit Shutdown shall be considered a Planned Flare Event;

(B) Flare Events that can be attributed to same process unit(s) or equipment and has more than one start time and stop time within a 24-hour period, shall be considered a continuation of the same event, and not a separate or unique event; and

(C) For an Unplanned Flare Event that continues for more than 24 hours, each calendar day of flaring Vent Gas shall constitute a separate Unplanned Flare Event.

Attachment A

- Staff updated the reference to South Coast AQMD Rule 218.1 to Rule 218.2 and Rule 218.3
- No changes proposed to flare monitoring system requirements
- Require calibrations to be conducted within at least 72 hours when there is an ongoing flare event
  - Flare emissions cannot be measured during calibration procedures

QA/QC	Shall comply with the flow QA/QC requirements of applicable provisions of ~~District Rule 218.1~~ Rule 218.2 and Rule 218.3. An annual verification of accuracy is required~~,~~ and shall be specified by the manufacturer. Note: A flow RATA is generally infeasible due to safety concerns

p. Analyzers with auto calibration check capability should be checked daily unless a different calibration frequency is approved by the Executive Officer. For analyzers without auto calibration check capability, submit a calibration check frequency request including supporting documentation to the Executive Officer for comment and approval.

i. Daily calibration may be deferred until the end of any Flare Event but not to exceed 72 hours.

ii. In the event of a failed deferred calibration, daily discrete samples shall begin to be collected within 30 minutes if the Flare Event is still occurring and will be used for calculations.

iii. If deferred calibration passes, the normal calibration schedule shall be resumed.

Attachment B

Data substitution for data missing for a period of 15 minutes or less, requires using the average of the recorded data one hour before and one hour after that period

ii) If total sulfur concentration data is not measured or recorded for a period of time less than or equal to 15 consecutive minutes during any Flare Event, the total sulfur concentration shall be calculated using the equation in Section (2)(c)(i), and maximum total sulfur concentration ($C_{Sulfur,Max}$) and average total sulfur concentration ($C_{Sulfur,Avg}$) that were measured and recorded for that Flare Event during the one hour preceding and the one hour following the period of time the sulfur concentration data is not measured or recorded.

Attachment C

- New Attachment
- Updated process capacity for refineries
- Added production capacity for hydrogen plants
- Reference to paragraph (j)(20) for a facility without publicly available processing capacity information

ATTACHMENT C

PROCESSING CAPACITY OF REFINERIES AND PRODUCTION CAPACITY OF HYDROGEN PRODUCTION PLANTS

This attachment provides Processing Capacity numbers for Refineries and Hydrogen Production Capacity numbers for Hydrogen Production Plants as of [*Date of Rule Adoption*].

Effective from [*Date of Rule Adoption*], the owner or operator of Facilities shall determine the applicable capacity pursuant to either of the following clauses, whichever the latest:

(i) As listed in Table C1 or Table C2; or

(ii) As listed in the Facility's Title V permit, the Facility's FMRP, or the California Energy Commission's list of California Oil Refinery Locations and Capacities, if applicable, on [*Date of Rule Adoption*], or as reported pursuant to paragraph (j)(20).

Table C1 – Processing Capacity of Refineries

Facility	Processing Capacity (Barrels per Day)
AltAir Paramount	Pursuant to Paragraph (j)(20)
Chevron USA Inc.	269,000
Marathon (Carson, Wilmington, SRP)	363,000
Phillips 66 (Carson, Wilmington)	139,000
Torrance Refining Co.	160,000
Valero	85,000

Table C2 – Production Capacity of Hydrogen Production Plants

Hydrogen Production Plant	Hydrogen Production Capacity (Million Standard Cubic Feet per Day)
Air Liquide	90
Air Product – Carson	96
Air Product - Wilmington	88
Chevron USA Inc.	72

Attachment D

- New Attachment
- Provides guidelines for calculating:
  - Mitigation fees adjusted with consumer price index
  - New NOx performance targets for hydrogen plants
  - SO_2 performance target for refineries

ATTACHMENT D

GUIDELINES FOR CALCULATING MITIGATION FEES FOR PERFORMANCE TARGETS EXCEEDANCE

This attachment provides the methodology to calculate the mitigation fees that the owner or operator of a Facility shall pay to South Coast AQMD when any Performance Target is exceeded in any single year.

1. Calculations for Facility-Specific Sulfur Dioxide Performance Target

The owner or operator of a Refinery or Sulfur Recovery Plant shall calculate the Facility-specific sulfur dioxide Performance Target based on the Processing Capacity as listed in the California Energy Commission's list of California Oil Refinery Locations and Capacities for that calendar year, or as reported pursuant to paragraph (j)(20), using the following equation:

$$\text{Facility Specific Sulfur Dioxide Performance Target [Tons]} = \text{Applicable Performance Target} \left[\frac{\text{Ton}}{\text{Million Barrels}}\right] \times \text{Processing Capacity [Million Barrels]}$$

Where:

Applicable Performance Target = As specified in Table 1 – Performance Target Schedule for Sulfur Dioxide

2. Calculations for Facility-Specific NOx Performance Target

The owner or operator of a Hydrogen Production Plant shall calculate the Facility-specific NOx Performance Target based on the Hydrogen Production Capacity, using the following equation:

$$\text{Facility Specific NOx Performance Target [Pounds]} = 0.3 \left[\frac{\text{Pound}}{\text{Million Standard Cubid Feet}}\right] \times \text{Hydrogen Production Capacity [Million Standard Cubic Feet]}$$

3. Calculations for Baseline Mitigation Fees

The baseline mitigation fees shall be calculated according to the following schedule:

a) If excess sulfur dioxide emissions or NOx Emissions are no more than ten percent of the Facility-specific Performance Target, $39,000 per ton of the

Emission Reductions

Emission Inventory

- Flares emit SO_2, NOx, VOC, and PM10
- Table shows the level of emissions from all flares as reported by the facilities

Year	SO_2 (ton/year)	NOx (ton/year)	VOC (ton/year)	PM_{10} (ton/year)
2012	122.83	45.15	29.36	9.75
2013	81.62	34.35	19.93	8.00
2014	103.13	22.29	9.12	4.84
2015	180.93	41.56	13.94	7.37
2016	67.29	26.36	13.67	7.79
2017	66.05	19.58	7.09	4.30
2018	63.43	17.54	5.38	2.00
2019	59.02	19.41	22.12	3.07
2020	62.27	18.54	58.39	4.09
2021	116.65	22.35	44.58	4.05
2022	63.14	30.70	99.64	8.27
Average	**73.48**	**21.35**	**56.18***	**4.30**

* Average excludes reported emissions from 2018 and before because of different VOC emission factors

Emission Reductions

- PAR 1118 is expected to achieve SO_2, NOx, and VOC emission reductions
  - SO_2 and NOx emission reductions are calculated based on emissions level in 2017 (AB 617 CERP baseline year)
  - VOC values are calculated based on emissions level in 2019 due to updated emission factor for VOC that is in effect since 2019
- Staff proposed gradual reduction in SO_2 performance target in two steps
  - Step 1 – 0.35 (ton/MMbbl) for calendar year 2026
  - Step 2 – 0.25 (ton/MMbbl) for calendar year 2028 and afterward

Pollutant Type	Calendar Year 2026		Calendar Year 2028 and after	
	Ton per Year Reduction	Percent Reduction	Ton per Year Reduction	Percent Reduction
SO_2	9.3	17	16.6	30
VOC	1.9	9	3.3	16
NOx	1.2	8	2.2	15

Emission Reductions

(Wilmington Carson West Long Beach)

- Reductions in SO_2 and VOCs emissions in the Wilmington, Carson, West Long Beach community are expected to exceed CERP emission reductions targets for flaring at refineries by 2030
- NOx emission reductions from refinery flares is estimated to be less than CERP emission reductions target by 2030 for NOx
  - CERP's NOx emission reductions target by 2030 from refineries is expected to be achieved primarily through Rule 1109.1 (~1,600 tpy NOx reduction)

Pollutant Type	Wilmington, Carson, West Long Beach Facilities		
	Ton per Year Reduction	Percent Reduction	CERP Emission Reductions Target (tpy) by 2030
SO_2	13.8	51	11
VOC	3.3	20	1
NOx	1.8	17	19

Socioeconomic Impacts

Socioeconomic Impact Assessment

- Socioeconomic Impact Assessment is required per Health and Safety Code Sections 40440.8 and 40728.5 for a proposed rule or rule amendment which "will significantly affect air quality or emission limitations"
- Socioeconomic Impact Assessment for PAR 1118 will consider:
  - Type of affected industries, including small businesses
  - Range of probable costs to industry or business
  - Other elements typically included in the Staff Report
- Socioeconomic Impact Assessment will be made available at least 30 days prior to the Public Hearing on April 5, 2024 (subject to change)


California Environmental Quality Act (CEQA)

California Environmental Quality Act (CEQA)

- South Coast AQMD, as CEQA lead agency, is reviewing the proposed project (PAR 1118) to determine if it will result in any potential adverse environmental impacts
- Appropriate CEQA documentation will be prepared based on the analysis

Next Steps

- End of Comment Period on February 22, 2024
- Stationary Source Committee Meeting on February 16, 2024
- Community Meeting on February 16, 2024
- Set Hearing on March 1, 2024
- Release Draft Rule Language and Draft Staff Report by March 5, 2024
- Public Hearing on April 5, 2024

Image Courtesy: POLITICO

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