

Adopt Proposed Amendments to District Rule 4460
(Petroleum Refinery Fence-line Air Monitoring) and District
Rule 3200 (Petroleum Refinery Community Air Monitoring
Fees) and Adopt Proposed Rule 4460 Petroleum Refinery
Fence-line Air Monitoring Plan Guidelines

San Joaquin Valley Air Pollution Control District
Governing Board Meeting

October 20, 2022

Assembly Bill (AB) 1647

- As part of Assemblymember Al Muratsuchi's bill package, AB 1647 approved by the Governor of California on October 8, 2017
- AB 1647 requires that by January 1, 2020:
 - Petroleum refineries develop, install, operate and maintain a fence-line air monitoring system at and near refineries in accordance to guidance developed by CARB and local air district
 - Air districts design, develop, install, operate and maintain a refinery-related community air monitoring system
 - Real-time data be made accessible to the public
- In December 2019, your Board adopted Rule 4460 (Petroleum Refinery Fence-line Air Monitoring) and Rule 3200 (Petroleum Refinery Community Air Monitoring Fees) to implement AB 1647 requirements

Overview of Current Rules 4460 and 3200

Rule 4460

- Requires refineries to implement publically accessible fence-line air monitoring systems
- Specifies type of monitoring equipment and pollutants to be monitored based on facility processing capacity
- Requirements as or more stringent than other districts
- Exempts refineries not currently engaged in refining crude oil



Rule 3200

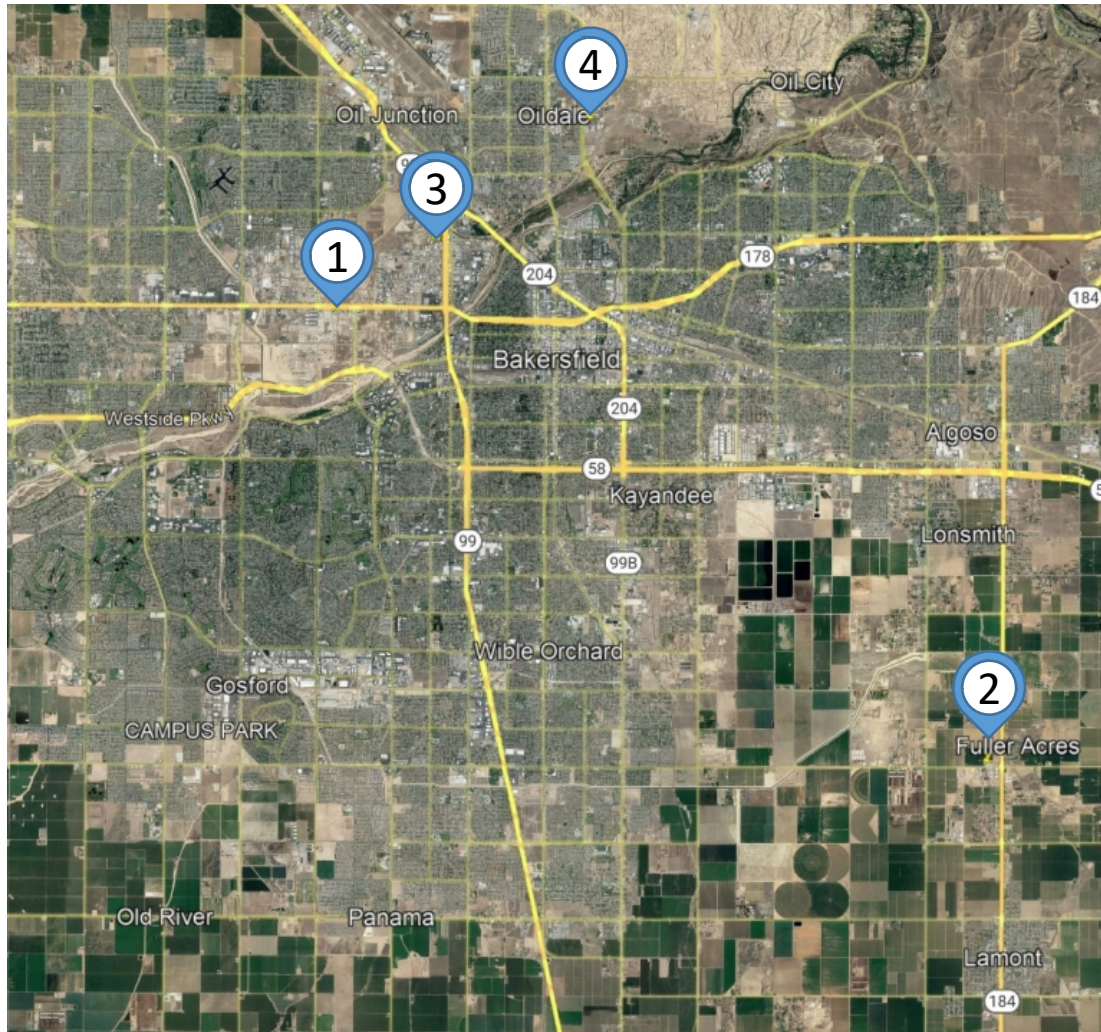
- Recovers District costs of developing and maintaining refinery-related community air monitoring system
- Exempts refineries not currently engaged in refining crude oil



Court Challenge

- Coalition of litigants filed lawsuit challenging District's implementation of AB 1647 requirements
- Fresno County Superior Court ruling (September 2021) affirmed certain aspects of District rules, but also issued the following clarifying direction:
 - Facilities not currently engaged in crude oil refining may not be exempted from the Refinery Statute's fence-line monitoring requirements
 - Re-evaluation and additional supporting analysis with respect to monitoring provisions for petroleum refineries with refining capacity of less than 40,000 barrels per day (currently requires monitoring for six specific pollutants)
- Accordingly, District conducted public process to develop proposed amendments and additional technical analysis for Rules 4460 and 3200

San Joaquin Valley Refineries



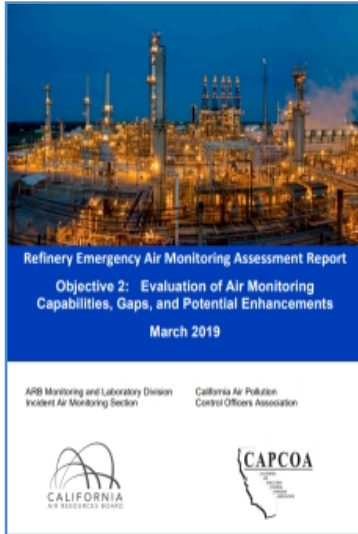
Facility Name	Location	Processing Capacity (barrels/day)	Pollutants Identified for Monitoring in Current Plans
1) Alon/Bakersfield Renewable Fuels	Rosedale Hwy, Bakersfield, CA	66,000	Not subject to current R4460 (not currently refining crude), however has fence-line monitoring in place for ammonia, H ₂ S, and hydrocarbons.
2) Kern Oil & Refining Co.	Panama Ln, Bakersfield, CA	26,000	BTEX, H ₂ S, SO ₂ .
3) San Joaquin Refining Co.	Shell St, Bakersfield, CA	15,000	BTEX, H ₂ S, SO ₂ .
4) Tricor Refining, LLC	Manor St, Bakersfield, CA	12,500	Not subject to current R4460 (not currently refining crude). Receiving, storing, and shipping various petroleum products, and production of air-blown asphalt.

State Guidance for AB 1647

Refinery Emergency Air Monitoring Assessment Report (REAMAR)

California Air Resources Board (CARB) and California Air Pollution Control Officers Association (CAPCOA)

- Provides inventory of emergency air monitoring assets and capabilities for refineries in California
- Provides recommendations to improve emergency and routine air monitoring at refineries and in surrounding communities
 - Recommendations cover air monitoring technology, modeling, and coordination
 - Implementing best practices does not imply one size-fits-all solution for refinery air monitoring
 - Recognizing the variability among refineries, implementation of each recommended strategy must be suited to each facility's size, operations, specific location, and its surrounding receptors, keeping in mind practical limitations of current and emerging technologies and timeframes necessary for full implementation



State Guidance for AB 1647 (cont'd)

Analysis of Refinery
Chemical Emissions and
Health Effects

March 2019



Office of Environmental Health
Hazard Assessment



California Environmental Protection Agency

Jared Blumenfeld
Secretary, California Environmental Protection Agency
Lester Zeise, Ph.D.
Director, Office of Environmental Health Hazard Assessment

Office of Environmental Health Hazard Assessment (OEHHA)

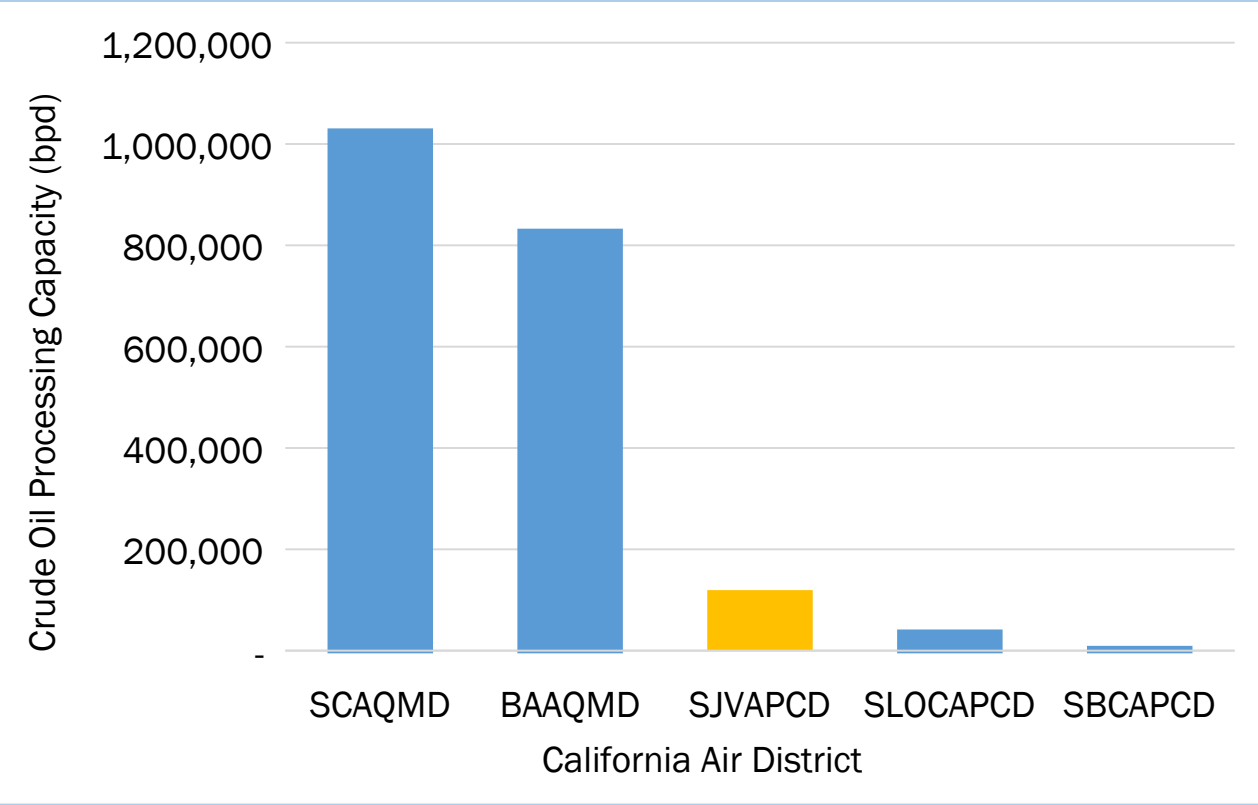
- In collaboration with CARB and Interagency Refinery Taskforce, conducted Analysis of Refinery Chemical Emissions and Health Effects
- Presents list of chemicals emitted from California refineries, and identifies 18 top candidates for air monitoring, taking into account emissions levels and toxicity
- Sulfur dioxide, hydrogen sulfide, and hydrocarbons were the most commonly reported chemicals emitted during refinery incidents

Top Pollutants Recommended by OEHHA for Air Monitoring

Acetaldehyde
Ammonia
Benzene
1,3-Butadiene
Cadmium
Diethanolamine
Formaldehyde
Hydrogen Fluoride
Hydrogen Sulfide
Manganese
Naphthalene
Nickel
Nitrogen Oxide
Polycyclic Aromatic Hydrocarbons (PAH)
Particulate Matter (PM)
Sulfur Dioxide
Sulfuric Acid
Toluene

California Refineries

	Processing Capacity (bpd)
South Coast AQMD	
Marathon Petroleum (Carson/Wilmington)	363,000
Chevron (El Segundo)	269,000
PBF Energy (Torrance)	160,000
Phillips 66 (Wilmington)	139,000
Valero (Wilmington)	85,000
Lunday Thagard, South Gate	8,500
Valero Wilmington Asphalt	6,300
Bay Area AQMD	
Chevron (Richmond)	245,271
Marathon Petroleum (Martinez)	166,000
PBF Energy (Martinez)	156,400
Valero (Benicia)	145,000
Phillips 66 (Rodeo)	120,200
San Joaquin Valley APCD	
Alon Bakersfield Refining (Bakersfield)	66,000
Kern Oil and Refining Company (Bakersfield)	26,000
San Joaquin Refining Company (Bakersfield)	15,000
Tricor Refining, LLC (Bakersfield)	12,500
San Luis Obispo County APCD	
Phillips 66 Santa Maria Refinery (Arroyo Grande)	41,800
Santa Barbara County APCD	
Greka Energy (Santa Maria)	9,500



Proposed Amendments

- Remove exemption for facilities not currently engaged in crude oil refining (including clarifying definition)
- Remove capacity-based air monitoring requirements and establish uniform air monitoring requirements based on potential pollutants of concern identified in state guidance and District-established air monitoring guidance
- Proposed amendments include Rule 4460 fence-line air monitoring guidelines and associated submission requirements and timelines
- Under proposed amendments, 2 additional Valley facilities would be subject to refinery air monitoring requirements (Alon Bakersfield Refining and Tricor Refining)

Extensive Rule Development Public Process

- Extensive public process to solicit feedback
 - Public Scoping Meeting: February 1, 2022
 - Public Workshop: April 26, 2022
 - Public Workshop: June 28, 2022 (included initial rule drafts for review)
 - Spanish interpretation offered at all meetings
- Updates provided at meetings of Citizens Advisory Committee and Environmental Justice Advisory Group
- District conducted interagency consultation with CARB, OEHHA, and California Attorney General's office
- Final draft rule documents posted August 16, 2022 for 30-day review and comment ahead of today's hearing
 - No public comments received on proposed regulation (earlier comments addressed in regulatory process/package)

Recommendations

1. Adopt proposed amendments to Rule 4460 (Petroleum Refinery Fence-line Air Monitoring) and Rule 3200 (Petroleum Refinery Community Air Monitoring Fees) and adopt proposed Rule 4460 Petroleum Refinery Fence-line Air Monitoring Guidelines
2. Authorize the Chair to sign the attached Resolutions