

Status of Statewide Refinery Air Monitoring Assessment

SCAQMD Torrance Refinery Hearing

April 1, 2017

Torrance, California

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California Air Resources Board

Background

- Chevron Richmond Fire in August 2012
- Governor creates IRTF in 2013 with focus on safety but also improved air monitoring
- ARB and CAPCOA agree to conduct joint assessment of refinery air monitoring and emergency response capabilities
- Results to be released in series of public reports

Coordination with Air Districts



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Refinery Assessment Plan

- Develop project plan:
Completed July 2013
- Inventory existing capabilities and procedures:
Completed May 2015
- Develop findings and recommendations:
Public draft April 2017
- Develop guidance and implement findings:
2017-2018



Refinery Emergency Air Monitoring Assessment Report

Objective 1: Delineation of Existing Capabilities

May 2015

Prepared by:

ARB Monitoring and Laboratory Division
Office of Emergency Response

California Air Pollution Control Officers
Association Air Monitoring Committee

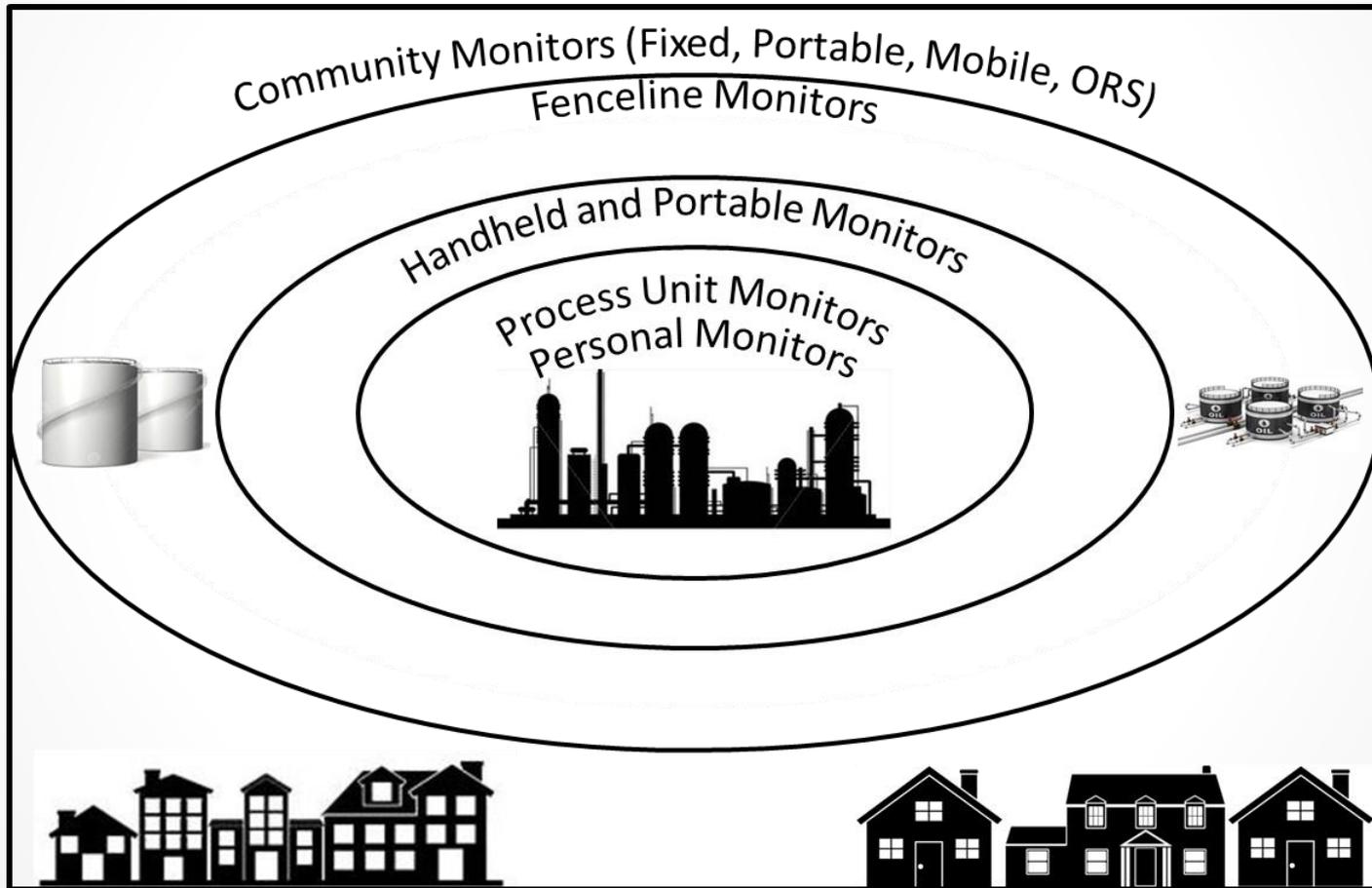
California Environmental Protection Agency
 Air Resources Board



Assessment Process

- Extensive reviews of rules and regulations, incident reports, case studies, emergency procedures, refinery risk management plans, instrument technical data
- Interviews with air districts, hazmat and fire response officials, health and safety officials
- Interviews with consultants
- Interviews and tours of all refineries with environmental and safety managers

Refinery Air Monitoring Zones



Layered Air Monitoring Strategy

Process Unit Monitors



Personal and Handheld Monitors



Fenceline Monitors



Hazmat Vehicles and Mobile Labs



Community Monitors



Air Monitoring Stations



Refinery Findings

Refineries	Chevron	Phillips 66	Shell	Tesoro	Valero	Chevron	ExxonMobil/ PBF Energy	Phillips 66	Tesoro	Valero	Paramount	Alon	San Joaquin	Kern Oil	Phillips 66	
Air District	BAAQMD						SCAQMD					SJVAPCD			SLO APCD	
Regular drills/exercises with local fire/hazmat	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CAA/CalARP Risk Management Plan (RMP)	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Mutual aid organization	•	•	•	•	•	•	•	•	•	•	•					
Community hazard patrol - responsive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Community hazard patrol - proactive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Continuous process unit air monitoring (OSHA)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Hand held air monitors for off-site use	•	•	•	•		•	•	•	•	•	•	•		•		•
Supports Local CAER or similar community organization	•	•	•	•	•											
Real-time onsite modeling capability									•							
Voluntary fence line monitor(s)	•	•														
Voluntary community monitor(s)	•				Inactive											
Social media notifications								•								

Air District/CUPA Findings

Refineries	Chevron	Phillips 66	Shell	Tesoro	Valero	Chevron	ExxonMobil/ PBF Energy	Phillips 66	Tesoro	Valero	Paramount	Alon	San Joaquin	Kern Oil	Phillips 66
Air District	BAAQMD						SCAQMD					SJVAPCD			SLO APCD
Mobile incident monitoring equipment (trailers, portable E-BAMs)					•	•	•	•	•	•	•	•	•	•	
Fixed real time PM monitors	•	•			•		•	•	•	•	•	•	•		•
Fixed real time toxics monitors (SO2, H2S, NH3, VOC)	•	•	•	•	•	•	•	•	•	•	•				
Portable and hand held incident air monitors	•	•	•	•	•	•	•	•	•	•	•				•
Required refinery specific ground level monitors	•	•	•	•	•							•			
Regular drills/exercises with refinery															•
Area plan/RMP oversight															
Lead CUPA/Local Responder	Contra Costa				Solano	LA County, LA City and/or Local Fire/Hazmat					Kern			SLO	
Community siren alert system	•	•	•	•	•	•	•	•	•	•	•				•
Hand held air monitors	•	•	•	•		•	•	•	•	•	•	•	•	•	•
Reverse 9-1-1 community notification	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Local industrial safety order	•	•	•	•			•								
Formal unified command agreement	•						•								
Internal refinery event notification							•								

Summary of Torrance Refinery Findings

■ Existing Capabilities

- Refinery on-site monitoring (process units and handheld monitors)
- Community patrols
- Coordination and drills with CUPAs
- Air district fixed monitors and mobile response capabilities

■ Areas for Improvement

- Fence-line and community monitoring
- Real-time or near real-time air quality data
- Public access to information and air quality data
- Enhanced dispersion modeling of releases

ARB Refinery Website

- ARB/CAPCOA air monitoring assessment reports
- Refinery fence line and community air monitoring data
- Local monitoring site maps
- Information on refinery incidents

Wednesday, March 29, 2017

Refinery Air Monitoring CalEPA Complaint Form

This page was last updated March 2017

UP LINKS

- Reducing Air Pollution - ARB Programs
 - Fuels Program
 - California Refineries
 - Refinery Air Monitoring

PROGRAM LINKS

- ARB Response Plans and Reports
- Information by Region
- Other Helpful Information

RESOURCES

- Contact Us
- Join the Refineries Email List

Latest Information

Real-Time Refinery Fenceline and Community Monitoring Data

- Alon Bakersfield
- Chevron Richmond
- Phillips 66 Rodeo

SCAQMD Hearing on Torrance Refining Co. (April 2017)

The SCAQMD's Governing Board Refinery Committee will conduct an investigative hearing on air quality impacts from the ExxonMobil Torrance refinery. Speakers from federal, state, and local agencies are expected to address the issue and public comments will be accepted in the afternoon.

The board will examine the air quality impacts from recent events at the refinery.

More information for the hearing can be found on the [SCAQMD Webpage](#).

Information By Region

The buttons below allow you to access information by region. Information includes: refinery rules, incident reporting, hazardous materials programs, risk management plans, sheltering in-place, fenceline and community air monitoring, network and emergency response plans, refinery websites, etc.

Bay Area San Joaquin Valley Central Coast Southern California

California Refineries: Interactive Map

This interactive map allows you to view refinery information and pertinent air monitoring data using Google Maps. Click on a refinery to see site information. On the Air Monitoring Stations overlay, you can select ARB and local Air District monitoring sites for current site-specific air quality data. Layers showing County or Air District boundaries may also be displayed.

📍 - Refineries 📍 - Air Monitoring Stations

Maps Reset

Address:

For Additional Information

- ARB refinery website

www.arb.ca.gov/fuels/carefinery/crseam/crseam.htm

- Greg Vlasek

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