

Refinery Emergency Air Monitoring Objective 1 Update: Delineation of Resources



**Monitoring and Laboratory Division
Office of Emergency Response**

June 4, 2015

Coordination with Air Districts



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

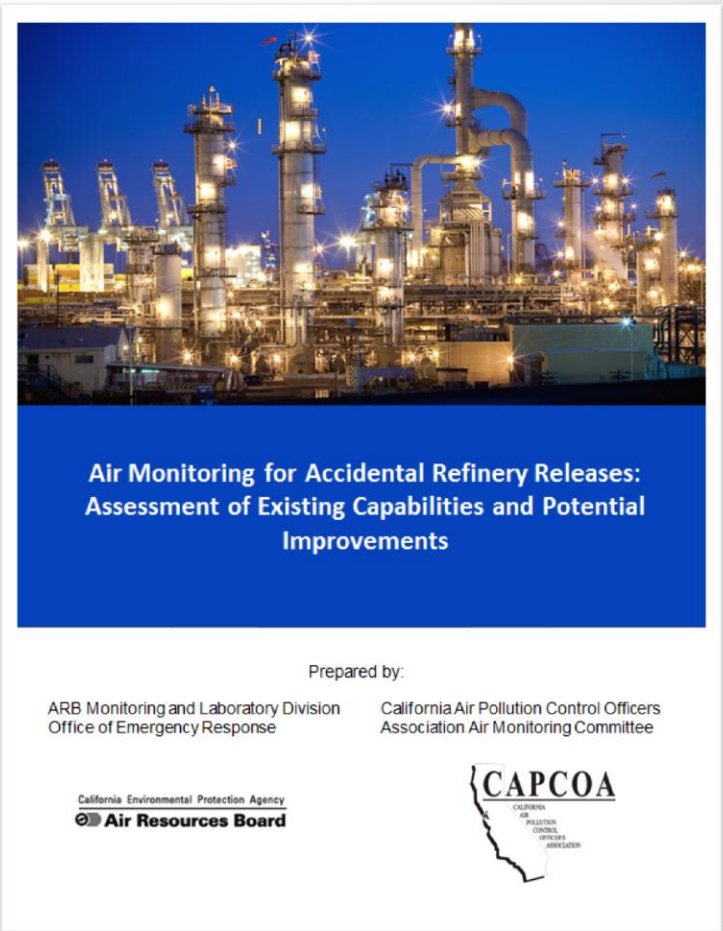


South Coast
Air Quality Management District
Cleaning the air that we breathe...



Refinery Assessment Plan

- Inventory existing assets and resources: **Completed**
- Evaluate capabilities and propose enhancements
- Develop statewide guidance on best practices
- Improve coordination, training, and preparedness



Inventory Existing Assets and Resources

- Air districts, local responders, refineries, State and federal support agencies, institutions, etc.
- Air monitoring instruments, equipment, and analytical support
- Trained personnel
- Protocols and procedures
- **Posted online May 12, 2015**

Air Monitoring Methods

Air Monitoring Stations



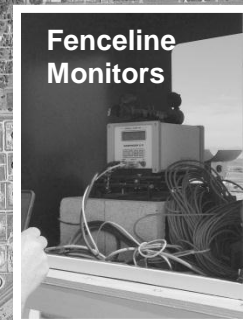
Personal and Handheld Monitors



Hazmat Vehicles and Mobile Labs



Fenceline Monitors



Community Monitors



Process Unit Monitors



Refineries	Chevron	Phillips 66	Shell	Tesoro	Valero	Chevron	ExxonMobil	Phillips 66	Tesoro	Valero	Paramount	Alon	San Joaquin	Kern Oil	Phillips 66
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	BAAQMD					SCAQMD						SJVAPCD			SLOAPCD
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							•								

Inventory Findings

- All refineries conduct drills and exercises with local fire and hazmat departments.
- All refineries conduct proactive and responsive community patrols.
- All air districts conduct some monitoring around refineries (VOC, H₂S, NH₃, SO₂).
- All air districts have some emergency portable and handheld air monitors

Inventory Findings (cont'd)

- Few refineries provide direct air monitoring data to local agencies or the public.
- Few refineries can model off-site release consequences in real time.
- Air districts do not drill or exercise emergency plans with refineries.
- Several unique refinery-related programs (GLM, ISO, mobile monitoring, CAER)

Online Clearinghouse

- Provides access to refinery related air monitoring information:

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

- Or web search:

ARB Refinery

Next Steps

- Assess resources and needs
- Prepare findings and recommendations
- Issue report/public workshops
- Assist local agencies with securing resources
- Facilitate ongoing interagency collaboration