

Update on the California Interagency Refinery Task Force



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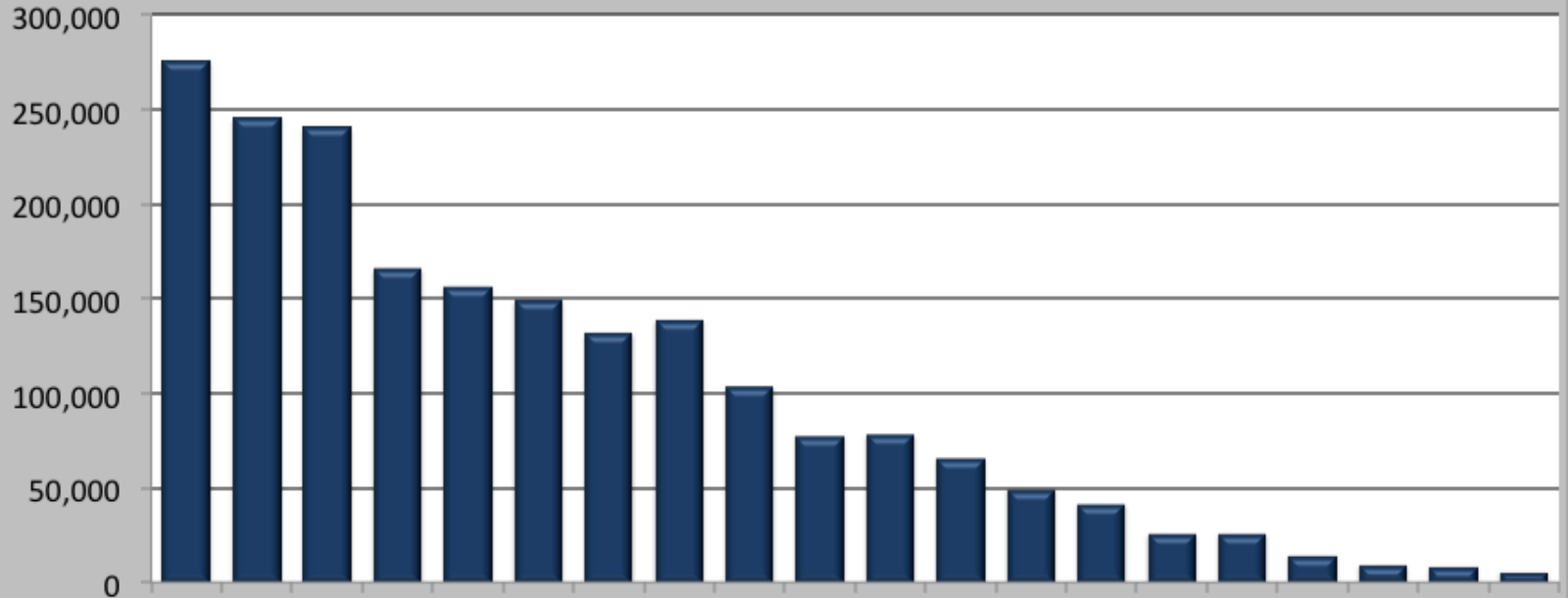
CALIFORNIA
ENVIRONMENTAL
PROTECTION
AGENCY

California's Oil Refineries & Terminals



- Number of major refineries: 14
- Crude oil refined per day: 2 million barrels
- Daily gasoline production: 45 million gallons (5,600 tanker trucks)
- Daily diesel production: 14 million gallons
- After Texas, California is nation's 2nd largest oil refining state.

Barrels/day



Chevron, Richmond

August 6, 2012

Pipe rupture produced a vapor cloud, which ignited







- Technical cause: Sulfidation corrosion
- Workers: 19 escaped vapor cloud by ~45 seconds
- Community: 15,000 local residents sought medical attention
- Public expenses: Fire, police, public health services
- Public transit: BART shut down outside Richmond station
- Agencies: Public communications break-downs, lack of coordination

Outcomes

- Cal/OSHA: ~\$1 million citations
- District Attorney: \$2 million criminal misdemeanor, probation
- Chevron medical reimbursements paid to residents: \$10 million
- U.S. EPA: Violations in process
- City of Richmond: Lawsuit pending
- Private actions: Lawsuits pending



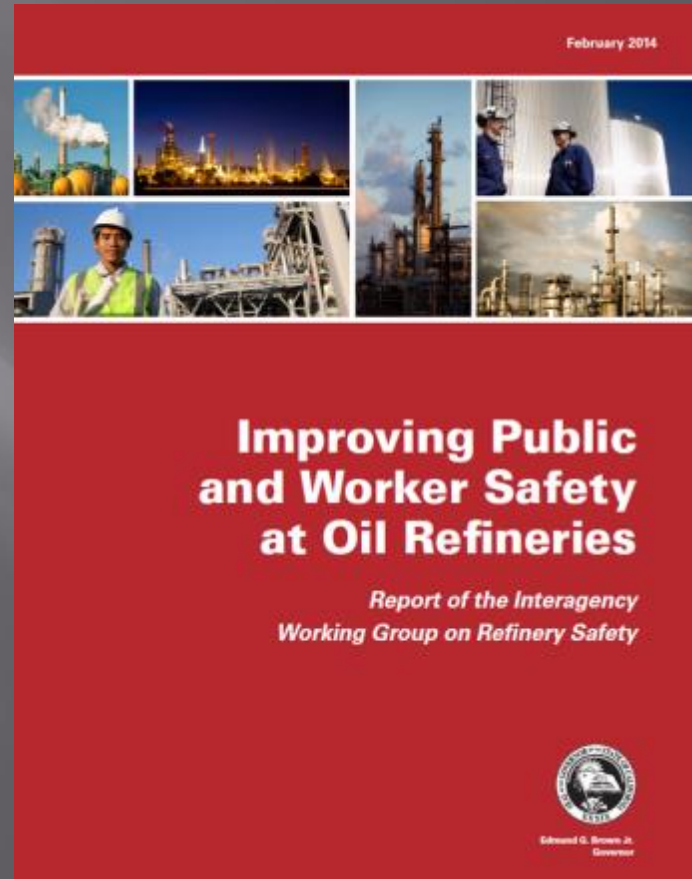
Governor's Interagency Refinery Safety Working Group

Outreach & Fact-Finding

- 15 outreach meetings in Northern and Southern CA with:
 - State and local agencies
 - Labor, community organizations
 - Refinery managers
 - Local and state fire agencies
- Evaluated Cal/OSHA investigative findings
- Evaluated U.S. Chemical Safety Board findings
- Evaluated Chevron's internal investigation
- Consulted with PSM experts

Recommendation Categories

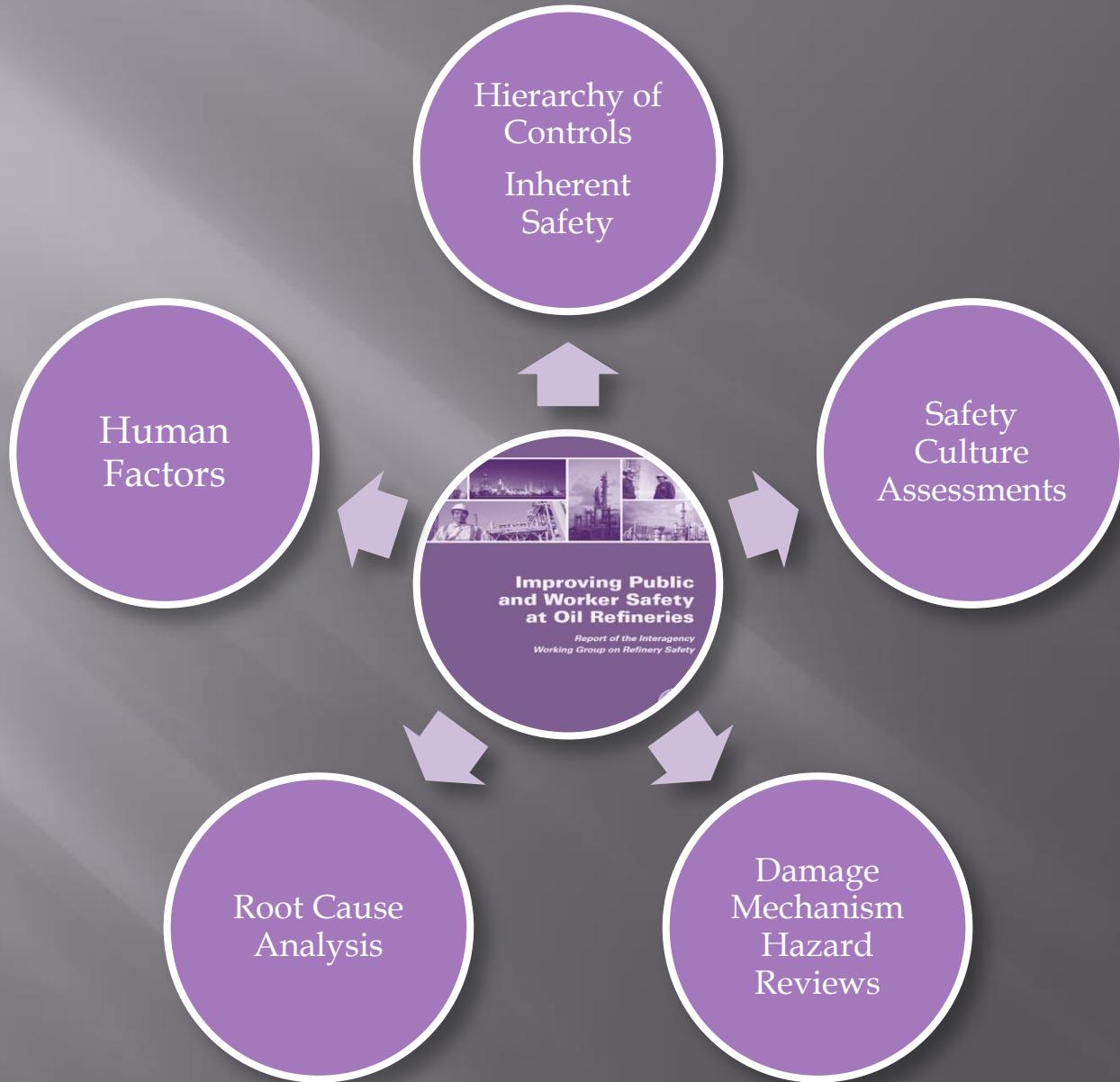
1. Emergency management and response
2. Safety and prevention
3. Public education and outreach
4. Improved agency coordination through the establishment of an Interagency Refinery Task Force



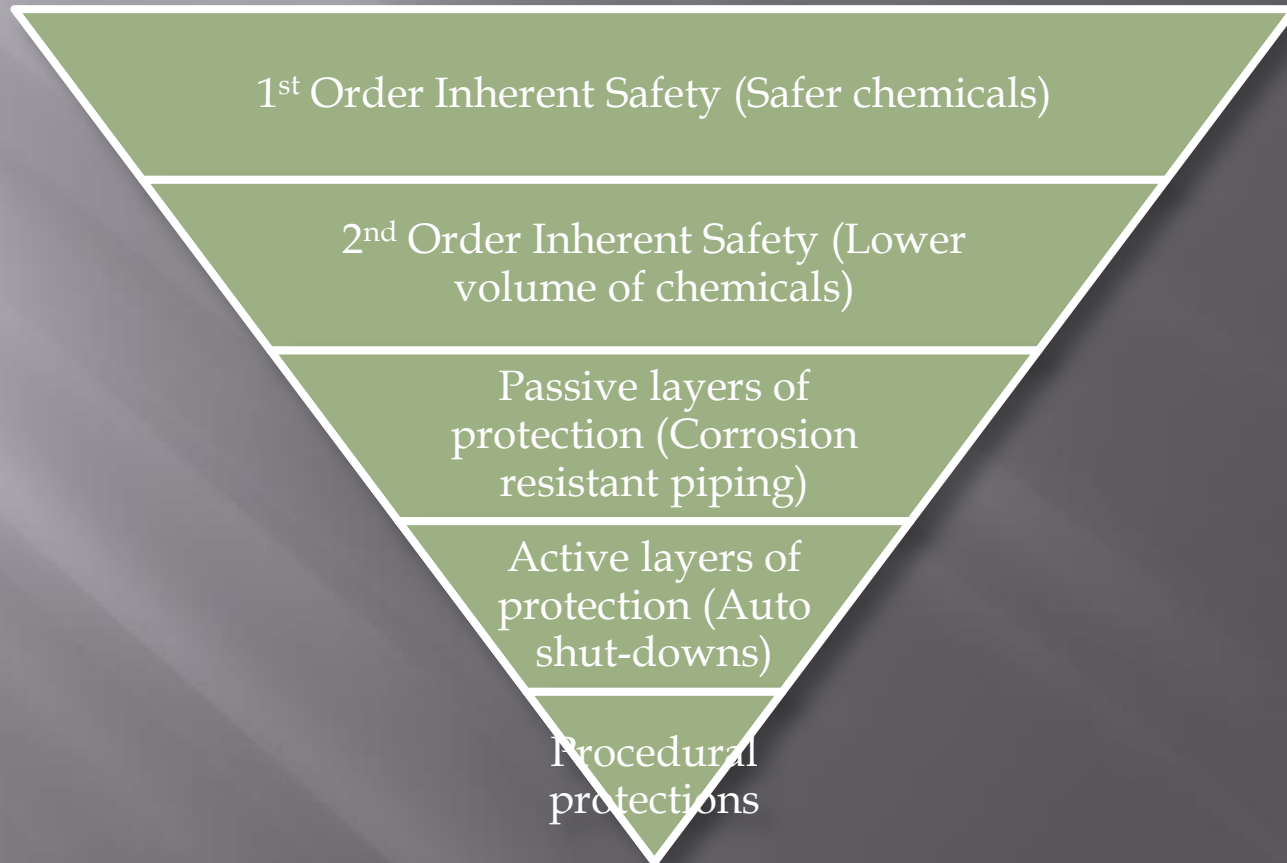
Safety and Prevention Work Group

“The PSM regulation and the CalARP program do not explicitly authorize Cal/OSHA or the CUPAs to evaluate and enforce the following aspects of process safety:

- inherently safer systems;
- use of indicators to evaluate performance;
- the impact of human factors on safe operations;
- management of change when applied to organizational changes;
- damage mechanism hazard review as part of the standard process hazard analysis; and
- assessment of the safety culture at the facility” (page 21)



The Hierarchy of Controls



Improving Refinery and Local Government Emergency Preparedness & Response



- Develop a model annex for the Hazardous Materials Area Plans for Emergency Response
 - Implemented at the local Certified Unified Program Agency level to better address refinery hazards.

- Define more precisely a refinery's requirements for reporting leaks or releases of a hazardous material to local and state agencies.

- Align federal and state hazardous materials response planning requirements.

Improving Communication with the Public



- ❑ Improve communication and outreach to the affected communities prior to any event.
- ❑ Improve communication to the affected communities and media during and after any refinery event.
- ❑ Identify issues and improve the emergency alert systems for notifying the public of releases.



Refinery Air Monitoring

- Delineate existing assets and resources
- Evaluate capabilities and propose enhancements
- Develop statewide guidance
- Improve coordination, training, and preparedness



**Air Monitoring for Accidental Refinery Releases:
Assessment of Existing Capabilities and Potential
Improvements**

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



Online Air Monitoring Clearinghouse

- ▣ Provides access to refinery related air monitoring information:

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



Questions?

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