



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 14

Update on Refinery Rulemaking

**Eric Stevenson, Director
Meteorology, Measurements and Rules
July 20, 2016**

Board Direction



Direction from June 15, 2016 Board of Directors meeting:

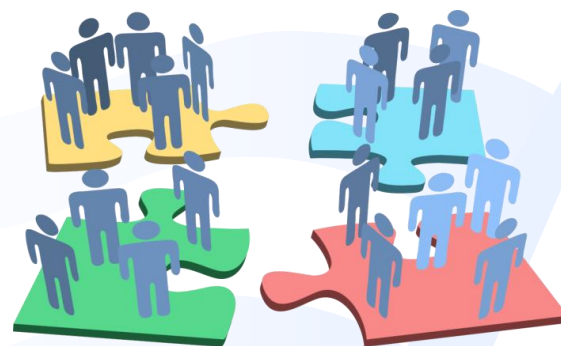
- Study all four options presented
- Move expeditiously to evaluate and present:
 - Staff proposal
 - CBE proposed numeric emissions caps
- Carefully consider rulemaking priorities





Actions Taken

- Meetings with stakeholders
- ARB has proposed Cap and Trade amendments
 - Extend beyond 2020
 - Cap decline of 3.5% per year
 - Link with Ontario, Canada





Proposed Approach

Expedientiously Evaluate:

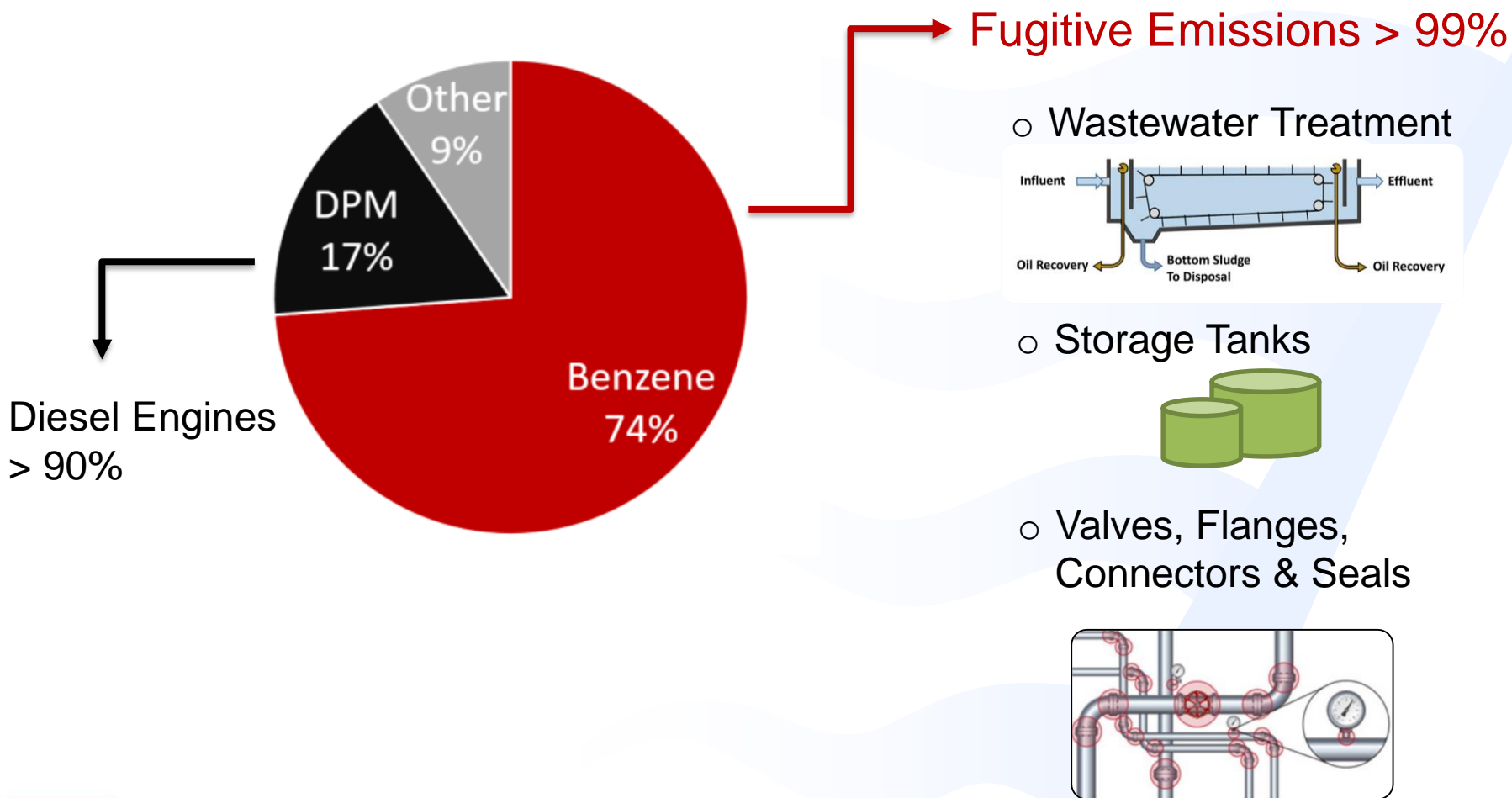
- Staff proposed toxic risk cap and reduction rule (Rule 11-18)
 - Addresses localized impacts from all Bay Area facilities
- CBE proposed numeric emissions caps at Bay Area refineries (Rule 12-16)
 - Caps greenhouse gases (GHG) and criteria pollutants

Evaluate other options within the Clean Air Plan



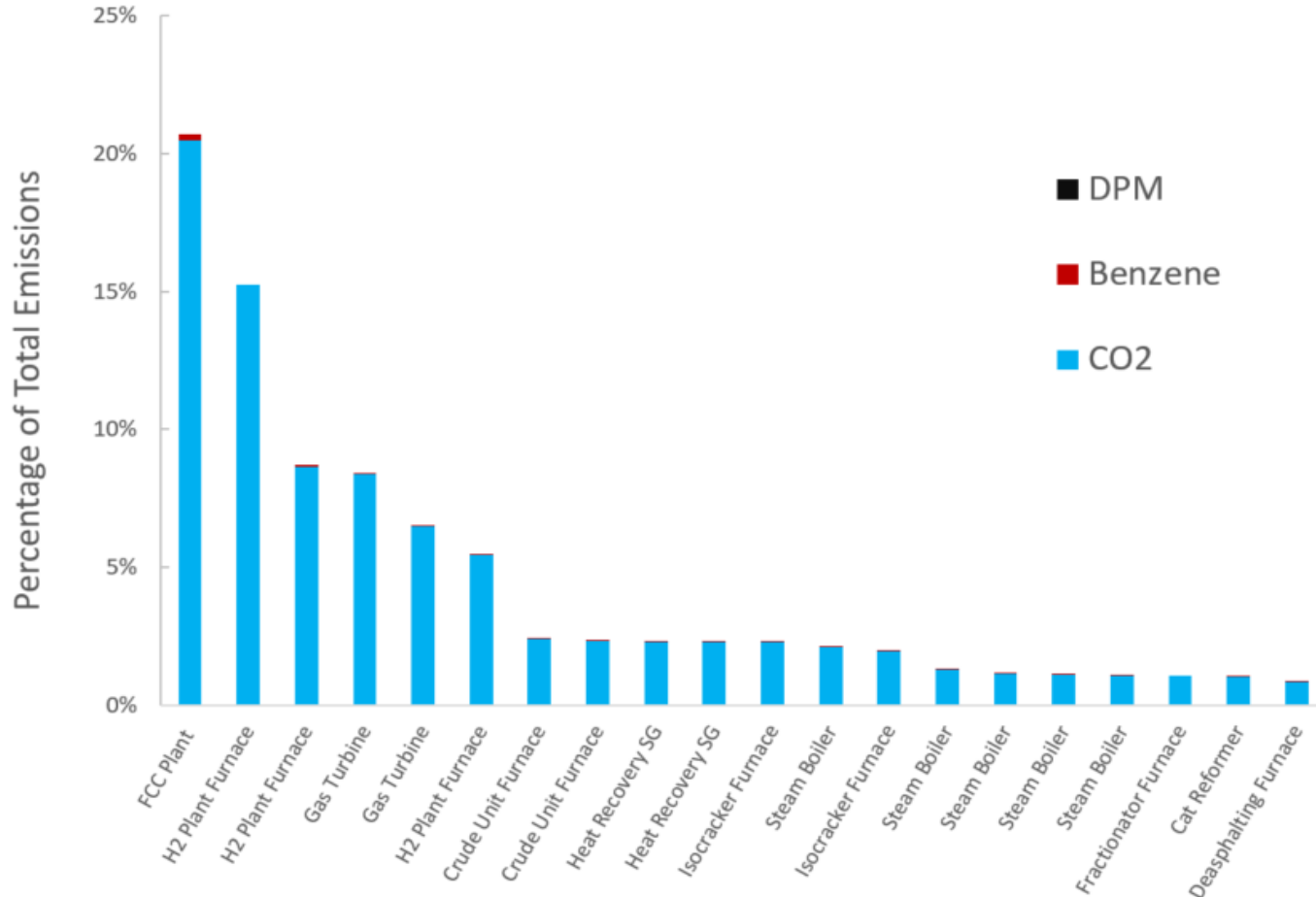
Cancer Risk Drivers for Typical Large Refinery

Source: Preliminary HRA Findings



Top Sources of GHG Emissions at Typical Large Refinery

Source: Air District Emissions Inventory, Year 2014



- 88% of CO₂ emissions

- 0.45% of Benzene emissions

- 0% of DPM emissions



Why Focus on Toxic Risk?

- Best way to cap and reduce localized air toxics impacts
- Incorporate new, more health-protective OEHHA Guidance
- Will incorporate OEHHA risk factors for $PM_{2.5}$ where available





Staff Proposed Toxic Risks Cap

Cap and reduce risk in two phases for all Bay Area facilities

Phase 1:

Reduce Risk Action to 25 per million (25/M)

- » Reduce risk below 25/M or “TBARCT” on all significant sources throughout the facility

Phase 2:

Risk Action further reduced to 10/M

- » Reduce risk below 10/M or “TBARCT” on all significant sources throughout the facility



CBE Proposed Emissions Caps

- **Criteria Pollutants capped at 2011-2013 levels**
 - NO_x, SO₂, PM
 - Actuals + 7%
- **Climate Pollutants capped at 2011-2013 levels**
 - CO₂ & Methane
 - Actuals + 10,000 metric tons

PM GHGs
NO_x SO_x



A photograph of a white lighthouse with a black top, situated on a grassy cliff overlooking the ocean. The sky is blue with some clouds.

Deliverables

- Toxics Risk Cap and Reduction Regulatory Language
- Emissions Cap Regulatory Language
- Staff Report
 - Emission Impact Analyses
 - Cost Impacts and Cost Effectiveness Analyses
 - Comparative Economic and Health Risk / Benefit Projections
- CEQA Comparative Environmental Impacts Analysis
- Socioeconomic Analyses





Schedule

Milestones / Deliverables	Date
Notice of Preparation Issued	August 19, 2016
Draft Regulation and Workshop Report Released	October 15, 2016
Workshops Held	November 2016
CEQA NOP / Initial Study Comment Deadline	November 23, 2016
NOP Comments Received and Initial Tasks completed	December 2016
Stationary Source Committee Update Meeting	January 2017
Board Hearing / CEQA EIR Review Process Final Regulatory Language and Staff Report, Socioeconomic Analyses, CEQA Draft EIR released Comment deadline Public meetings held Public comments received and responded to Board of Directors Meeting to Consider Adoption	March 3, 2017 April 17, 2017 April 19, 2017 May 1, 2017 May 17, 2017



Summary of Ozone Seasons

Year	National 8-Hour	State 1-Hour	State 8-Hour
2013*	3	3	3
2014*	5	3	10
2015*	5	4	11
2016	6	2	6

Spare the Air Alerts: 6/2, 6/3, 6/4, 6/21, 6/28, 7/13, 7/14, 7/15

Days > 0.070 ppm 8-hour NAAQS: 6/2, 6/3, 6/4, 6/30, 7/14, 7/15

***Based on NAAQS of 0.075 ppm that was in place during those years**