



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 5

**Update on
Regulation 12, Rule 16 Alternatives**

**Stationary Source Committee
February 25, 2016**

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Overview

- Refinery Impacts and Issues
- Progress on Refinery Strategy
- Strategy for Criteria Pollutants
- Strategy for Toxic Pollutants
- Greenhouse Gas (GHG) Focus and Reduction Options for Regulation 12, Rule 16
- Evaluation / Stakeholder Process



Refinery Impacts and Issues

- Major sources of air pollutants: criteria, toxic and greenhouse gas (GHG)
- Fine particulate matter (PM_{2.5}) and Toxic Air Contaminants (TAC) may impact communities
- Crude slate changes may increase emissions
- Cap-and-Trade does not guarantee local GHG reductions



Refinery Strategy Background and Progress

- Board Directs Staff (Resolution 2014-07)
 - Reduce refinery emissions by 20% or as much as possible
 - Develop Rules 12-15 & 12-16
- Board approves Refinery Emission Reduction Strategy
- Staff develops rules to reduce refinery emissions
 - 14% overall emission reductions with three adopted rules
 - Additional rules will further reduce toxic and criteria pollutants (including fine particulates)



Refinery Strategy – Criteria Pollutants

Actions to Date

- Three rules adopted December 2015 resulting in significant emissions reductions

Upcoming Actions

- Rules 12-15 and 9-14 proposed for Board action April 20, 2016
- Additional rules in development to realize further emissions reductions

On track to meet 20% reduction goal



Refinery Strategy – Toxic Air Contaminants

Upcoming Actions for all facilities

- Rule 2-5: Toxic New Source Review – 2nd Quarter 2016
 - Incorporate more conservative OEHHA Guidance
 - Ensures risk reductions as new equipment comes online
- AB 2588 – 4th Quarter 2016
 - Revise risk management action levels to lower risk significantly
 - Requires new facility-wide HRAs
 - Ensures overall facility risk is lowered

Combined, these actions will comprehensively reduce TACs from refineries and other sources



Refinery Strategy – Focus on GHG

Criteria and Toxic Air Contaminants well addressed. Focus 12-16 on reducing Climate Pollutants

- Current/planned efforts addressing GHG:
 - AB 32 Cap-and-Trade
 - Sector-wide GHG reductions
 - Does not ensure local GHG reductions
 - Best Available Control Technology (BACT) review for GHG increases through permitting requirements

Options for GHG Reductions for Regulation 12, Rule 16

- Washington State Refinery GHG Rule:
 - Meet energy efficiency benchmark based on similar refineries or
 - Reduce GHG emissions by a set percentage from baseline
- Source-specific GHG rules requiring energy efficiency upgrades when refineries are in maintenance turn-arounds
- Refinery specific GHG emissions cap
- Focus on methane



Evaluation Criteria

- Maximize GHG reductions
- Actions within Air District authority
- Achieves reductions of other pollutants
- Avoids adverse impacts
- Provides process transparency
- Implementation speed / complexity
- Technology-driving benefits



Stakeholder Process

- Ongoing stakeholder input and participation
- Board of Directors briefings and input
- Advisory Council recommendations
- Workshops / Open Houses
- Staff findings / Conclusions
- Board of Directors Public Hearing