



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 4

Rule Development Updates

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Rule Development Manager

Stationary Source Committee Meeting
January 30, 2017



Overview

- Refinery Rulemaking History
- Overview of Draft Rule 12-16
- Overview of Draft Rule 13-1
- Overview of Draft Rule 11-18
- Schedule / Next Steps



Refinery Rulemaking History

Board Resolution 2014-07

In October 2014, Board provided direction to staff

- Continue work on Rule 12-15 to monitor refinery emissions
- Develop Rule 12-16 to prevent increases in refinery emissions
- Develop additional rules to reduce refinery emissions by 20% by 2020, or as much as feasible

In 2015 and 2016, the first suite of emission reduction rules were approved. These rules will reduce refinery emissions by more than 15%



Refinery Rulemaking History

Progress

On track towards *Refinery Strategy* goals

- Six rules adopted
- Criteria pollutant emissions reductions of over 15%

Rule	Addresses	Adopted
6-5	Reduces PM from FCCUs	Dec. 2015
8-18	Reduces VOC from equipment leaks	
11-10	Reduces VOC and toxics from cooling towers	
9-14	Reduces SO ₂ from coke calcining operations	Apr. 2016
12-15	<i>Tracks crude slate changes and emissions</i>	
2-5	<i>New Source Review for Toxics</i>	Dec. 2016



Refinery Rulemaking History

Work on Rule 12-16

2015

OCT

First draft of Rule 12-16 released. Significant number of comments received. Staff responded by evaluating alternative approaches.

2016

Staff presents four options to address refinery GHGs

- Focus on methane
- Refinery-wide combustion emissions
- BARCT on refinery processes
- Numeric emissions cap (CBE's proposal)

JUN

JUL

Board directs staff to analyze CBE's proposal (as Rule 12-16) and staff proposal (Rule 11-18) in one EIR.



Draft Rule 12-16

Limits refinery GHG & criteria pollutant emissions

- Affects five refineries and three associated facilities
- Caps GHG, PM₁₀, PM_{2.5}, SO₂ and NO_x emissions
- Limits set at 7% above each refinery's five-year max

Has significant issues

- Conflicts with state and federal law on permitting
- Court would likely find it to be arbitrary and capricious
- May cause gasoline shortages if consumption increases

Draft Rule 13-1

First Rule of Combustion Strategy

Limits refinery GHGs by focusing on carbon intensity

- Caps GHG emissions at each refinery's current, actual capacity operation
 - Accounts for GHGs from all power and H₂ inputs
 - Requires execution of cost-effective efficiency projects
- Does not interfere with Cap-and-Trade or the gasoline market
- Prevents refineries from re-tooling to process tar sands crude

$$\text{Carbon Intensity Limit} = \frac{\text{Annual GHG Emissions (CO}_2\text{e)}}{\text{Annual Crude Volume (barrels)}}$$



Draft Rule 13-1 and Draft Rule 12-16

- Staff believes that draft Rule 13-1 meets the GHG-related goals of draft Rule 12-16, but more analysis and consultation with stakeholders is still required.
- Draft Rule 13-1 will be evaluated as an alternative to draft Rule 12-16 in the EIR for 12-16.
- Analysis of draft Rule 13-1 will not impact the schedule for the analysis of draft Rule 12-16.



Draft Rule 11-18

Reduces public's exposure to localized health risks

- Hundreds of facilities will be evaluated, including refineries
- Health Risk Assessments (HRAs) conducted by Air District staff using latest OEHHA guidelines
- Threshold for facilities to develop and execute District-approved Risk Reduction Plans reduced from 100 per million (100/M) to 10/M
- Refineries have among highest priority for HRAs (Phase 1)
- Rule 11-18 ensures public transparency and continuous improvement



Schedule / Next Steps

On track with 12-16/11-18 rulemaking process

- MAR 2017 – Second round of workshops / hearing package published
- MAY 17, 2017 – Board hearing

Proposed schedule for Rule 13-1

- FEB 2017 – Workshop package published
- MAR 2017 – Outreach in refinery communities
- APR 2017 – Update to Stationary Source Committee
- MAY 2017 – Hearing package published
- AUG 2017 – Board hearing



Recent Trends for Petroleum, Electricity & Renewables

Western States Coordination Meeting

WebEx

January 26, 2017

Gordon Schremp

Energy Assessments Division

California Energy Commission



Calif. Gasoline Demand 1945-*2016

Since the peak in 2004, gasoline consumption declined seven of the next eight years. Gasoline consumption dropped 8.94 percent between 2004 and 2012.

2015 consumption **up 2.76 percent** compared to 2014.
Highest level since 2007.

*2016 consumption projected at 15.55 billion gallons.

Source: California Energy Commission

