

Wildfire Program

Purpose: Develop a comprehensive Wildfire Response Program to aid in preparing, preventing, and responding to wildfire events.

- Recurring and unprecedented wildfires throughout California has prompted a discussion on Air District role in wildfires.
- At the January 16, 2019 Board of Directors Retreat, staff will present a comprehensive strategy and timeline.



California North Bay wildfires:

Curbed SF Image credit: Photo by Justin Sullivan/Getty Images

Components:

- Create legislation that would direct the Air District , working with cities and counties, to create clean air centers throughout our nine-county jurisdiction.
- Amend Regulation 5: Opening Burning :
 - encourage burning for wildfire prevention and control while balancing air quality needs
- Create new Regulation 15 (similar to Regulation 4):
 - establish control and advisory procedures when specific levels of PM_{2.5} have been reached
 - Develop wildfire smoke health effects guidance, action document, and an associated communications plan



Legislation Strategy

Goal: Create legislation that would direct the Air District , working with cities and counties, to create clean air centers throughout our nine-county jurisdiction.

- Work with cities and counties to identify locations and costs.
- Seek funding to build/retrofit centers with high efficiency filtration.



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AGENDA: 12

Assembly Bill 617 (AB 617) Industrial Cap-and-Trade Sources Best Available Retrofit Control Technology (BARCT) Expedited Implementation Schedule



David Joe
Principal Engineer - Rule Development

Board of Directors Meeting
December 19, 2018



Outline

- Overview of AB 617 Best Available Retrofit Control Technology (BARCT) Requirements
- Approach and Development of Expedited BARCT Implementation Schedule
- Potential Rule Development Projects in Schedule
- Environmental Impacts
- Recommendations



BARCT Schedule Requirements

- AB 617 signed into law in July 2017
- Requires air districts to develop and adopt an expedited schedule for implementation of BARCT
- Schedule must be adopted by January 1, 2019
- Must be implemented by the earliest feasible date, no later than December 31, 2023



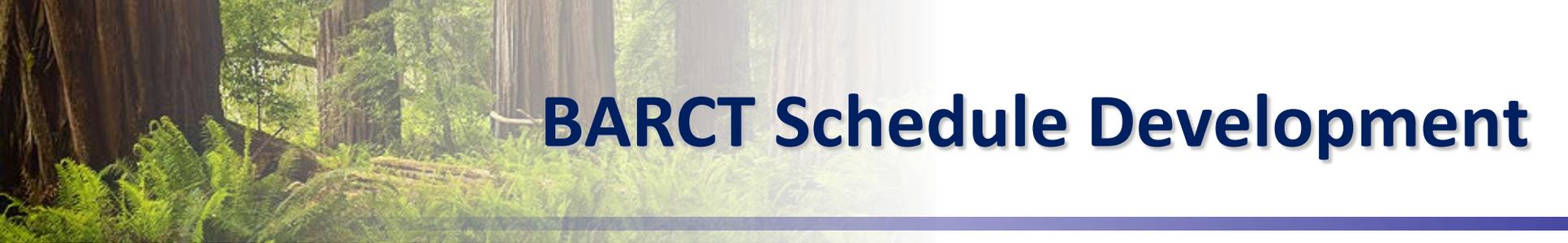
BARCT Schedule Requirements (cont.)

- Schedule applies to industrial Cap-and-Trade sources
- Best Available Retrofit Control Technology
 - An emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source
- Does not apply to sources that have implemented BARCT since 2007
- Priority for sources that have not modified emissions limits for longest period of time



BARCT Schedule Approach

- Level and scope similar to Clean Air Plan control measures
- Identifies source categories where further BARCT controls may achieve potential emission reductions
- Schedule and timelines for further work and development
- Schedule itself does not contain proposed regulatory language or new rules for adoption at this time

A background image of a lush forest with tall trees and green ferns in the foreground. The title 'BARCT Schedule Development' is overlaid on the right side of the image in a bold, dark blue font.

BARCT Schedule Development

- Focus on non-attainment pollutants
 - Ozone (precursors NO_x and Reactive Organic Gases [ROG])
 - Particulate matter (and SO₂ as a PM component)
- 19 Industrial Cap-and-Trade facilities in Bay Area
 - 1,899 sources in 50 source categories
- Screening for small sources
 - Potential emission reductions small
 - Retrofit controls not likely to be cost effective
- Screening for sources with BARCT already achieved
 - Air District rules and regulations updated since 2007



BARCT Schedule Development (cont.)

- Reviewed achievable emission limits and potential controls
 - Best Available Control Technology (BACT), Reasonably Available Control Technology (RACT), Lowest Achievable Emission Rate (LAER)
- Reviewed current source emissions, controls, performance, and emission limits



BARCT Schedule Development (cont.)

- Estimated potential emission reductions and control costs
- Calculated preliminary cost effectiveness
- Identify potentially achievable and cost-effective controls and emission limits for rule development



Prioritization of Projects

- Local clean air and public health benefits, including toxic emission reduction co-benefits
- Substantial emission reductions, particularly particulate matter (PM) emissions
- Source categories where BARCT controls have not been recently addressed
- Cost effectiveness of potential controls



Prioritization of Projects (cont.)

- Public comments received:
 - Accelerate and prioritize rule development efforts on rules addressing refinery sources
 - Additional time for technical assessment of sources and controls
- CARB Resolution 18-37 supporting acceleration of rule development for refinery sources



Potential Rule Development Projects

	<u>Rule Development Projects</u>	PM	NOx	ROG	SO ₂
1	Rule 8-5: Organic Liquid Storage Tanks			X	
2	Rule 8-8: Petroleum Wastewater Treating			X	
3	Rule 9-13: Portland Cement Manufacturing	X			X
4	Rule 6-5: Refinery FCCUs and CO Boilers	X			X
5	Rule 8-18: Refinery Heavy Liquid Leaks			X	
6	Rule 9-14: Petroleum Coke Calcining		X		



Potential Rule Development Projects

<u>Rule Development Projects</u>		2018				2019				2020				2021			
1	Rule 8-5: Organic Liquid Storage Tanks																
2	Rule 8-8: Petroleum Wastewater Treating																
3	Rule 9-13: Portland Cement Manufacturing																
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Environmental Impacts

- Pursuant to California Environmental Quality Act (CEQA)
- Potential impacts from installation and operation of air pollution control equipment
- CEQA Initial Study and Scoping Meeting (August 2018)
- Draft Environmental Impact Report (October 2018)
- Final Environmental Impact Report (December 2018)
- Air District will perform environmental review as appropriate for individual rule development projects



Environmental Impacts (cont.)

- Air Quality

- Short-term impacts from NO_x, ROG, PM₁₀, and PM_{2.5} emissions during construction
- Potentially significant impact after mitigation and cumulatively considerable

- Water Resources

- Water demand from operation of control equipment (WGS)
- Potentially significant impact after mitigation and cumulatively considerable



Recommendations

Recommend the Board of Directors:

- Adopt AB 617 Expedited BARCT Implementation Schedule
- Certify CEQA Final Environmental Impact Report



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AGENDA: 13

Refinery Rules Amendments Public Hearing

Victor Douglas
Rule Development Manager

Board of Directors Meeting
December 19, 2018





Overview

- Proposed Refinery Rules Amendments
 - Rule 6-5: Particulate Matter from Fluidized Catalytic Cracking Units
 - Rule 11-10: Cooling Tower Hydrocarbon Emissions
 - Rule 12-15: Petroleum Refinery Emissions Tracking
- California Environmental Quality Act (CEQA)
Environmental Analysis
- Recommendations





Rule 6-5: PM from Fluid Catalytic Cracking Unit (FCCUs)

- Clarifies exemptions and provisions consistent with original rule intent
 - Clarifies exemption for FCCU abated by wet scrubber
 - Removes placeholders for future limits on condensable PM and SO₂
- Does not preclude further limits or amendments
- No emission changes



Rule 11-10: Cooling Towers

- Clarifies and modifies:
 - Exemptions for small cooling towers and towers not in refining service
 - Monitoring requirements to weekly monitoring
 - Leak action requirements, alignment with federal requirements
- Removes Best Modern Practices duplicate requirements



Rule 11-10: Cooling Towers (cont.)

- Potential foregone emissions reductions compared to daily monitoring, however:
 - Leaks are a rare occurrence, variable in nature, and estimates speculative
 - Daily monitoring not cost effective
 - Weekly monitoring still more stringent than federal requirements
 - Remains most stringent rule on cooling tower leaks





Rule 12-15: Refinery Emissions Tracking

- Proposed amendments
 - Clarify definitions and applicability
 - Remove cargo carriers (ships & trains) emissions requirements
 - Clarify and modify reporting for small quantities of feedstocks
 - Clarify review and approval process for Emissions Inventory, Guidelines, and Fence-line Monitoring Plan
 - Modify monthly crude slate reporting requirements
 - Designation of Confidential Information requirements clarified
- No emission changes



Environmental and Socioeconomic Impacts

- CEQA Initial Study and Scoping Meeting (August 2018)
- Draft Environmental Impact Report (October 2018)
- Final Environmental Impact Report (December 2018)
- Potentially significant air quality impacts (Rule 11-10 only)
 - Potential foregone emission reductions range from 1 – 16 tons per year
 - Mitigation and alternatives deemed not economically feasible
- Socioeconomic impacts previously analyzed
 - No additional analyses needed, costs have not increased





Recommendations

Recommend the Board of Directors:

- Adopt amendments to Regulation 6, Rule 5;
- Adopt amendments to Regulation 11, Rule 10;
- Adopt amendments to Regulation 12, Rule 15; and
- Certify Final Environmental Impact Report



Winter PM_{2.5} Seasons

Year	Days > 35 µg/m ³	Winter Spare the Air Alerts
2015/2016	0	1
2016/2017	0	7
2017/2018	8	19
2018/2019	14	15

- Spare the Air Alert Called for: 11/8/18 – 11/21/18, 12/15/18
- Days > 35 µg/m³ 24-hr NAAQS: 11/8/18 – 11/21/18

Calendar Year Summary

Year	National Ozone Exceedances	Days > 35 $\mu\text{g}/\text{m}^3$ due to Wildfires ($\text{PM}_{2.5}$)	Total Days > 35 $\mu\text{g}/\text{m}^3$ ($\text{PM}_{2.5}$)
2014	5*	0	3
2015	5*	3	9
2016	15	0	0
2017	6	14	18
2018	3	16	20

For Ozone - Days > 0.070 ppm 8-hour NAAQS: 08/03/18, 8/9/18, 8/18/18

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

For Wintertime - Days > 35 $\mu\text{g}/\text{m}^3$ 24-hr NAAQS: 12/15/17, 12/24/17, 12/30/17, 12/31/17, 1/1/18, 1/2/18, 1/3/18, 1/4/18, 11/8/18 – 11/21/18

(Other exceedances occurred due to wildfires)