



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 4

Air District Legal Authorities 101

**Stationary Source Committee Meeting
February 26, 2020**

**Brian C. Bungler
District Counsel**

Air Quality Problems



➤ Criteria Pollutants

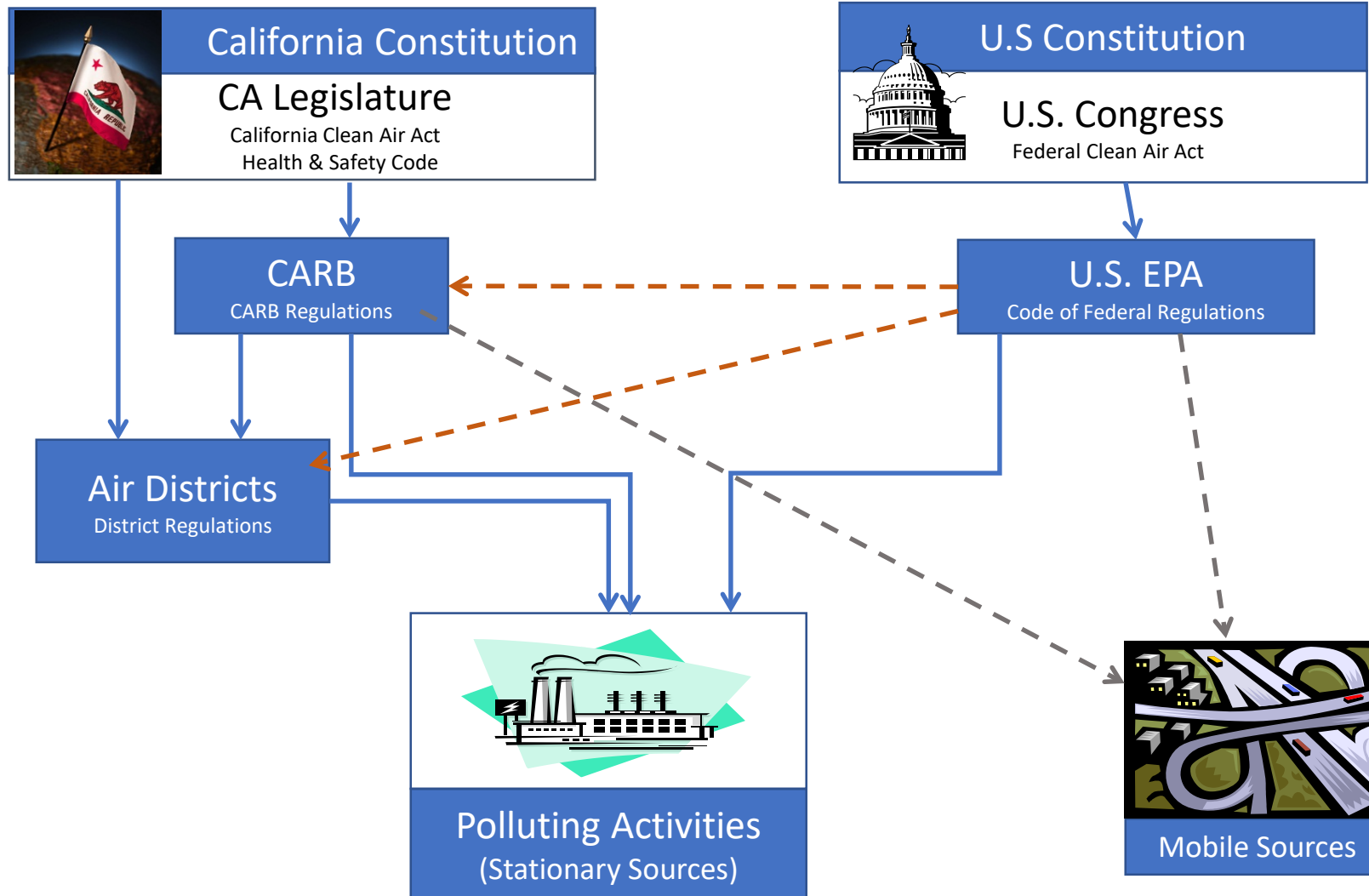
- Federal and California: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, lead
- California only: sulfates, hydrogen sulfide, vinyl chloride

➤ Air Toxics

- Federal: hazardous air pollutants (HAPs)
- California: toxic air contaminants (TACs)

➤ Greenhouse Gases (GHGs)

Regulatory Framework





- Primary responsibility: control of air pollution from sources other than motor vehicles

- Powers to:
 - Adopt and enforce regulations
 - Require stationary source permits
 - Adopt fees
 - Adopt air toxic control measures
 - Regulate nuisances
 - Prohibit dark smoke
 - Adopt state nonattainment plans
 - Adopt regulations necessary to execute duties

Roles of Board and Staff



- Board Responsibilities:
 - Set policy
 - Adopt budget and fees and approve expenditures
 - Adopt plans
 - Adopt regulations
 - Appoint the Air Pollution Control Officer and Counsel

Roles of Board and Staff (cont.)



- Staff Responsibilities:
 - Appoint district staff
 - Issue permits
 - Enforce statutes, regulations and permit requirements
 - Develop plans for Board consideration
 - Develop regulations for Board consideration

Roles of Board-Appointed Bodies



- Hearing Board
 - Appeals of permitting decisions
 - By applicant
 - By third parties
 - Variance requests from regulated entities
 - Permit revocation requests from Air District staff
 - Abatement Order requests from Air District staff
- Advisory Council
 - Studies issues at request of Board and staff and provides advice

Criteria Pollutant Control - Planning



- Federal – federal attainment plans, e.g., 2005 Ozone Strategy
 - Must demonstrate attainment by a specified date
 - Plan Components
 - Inventory
 - Man-made (“anthropogenic”): stationary sources, area sources, motor vehicles
 - Natural (background/non-anthropogenic)
 - Modeling
 - Control strategy
 - “Commitments” for all source types
 - Penalties for failing to have plan
 - Joint adoption with Metropolitan Transportation Commission (MTC)

Criteria Pollutant Control – Planning (cont.)



- California – state attainment plans, e.g., 2017 Clean Air Plan
 - Must demonstrate 5% reduction in nonattainment pollutant emissions per year averaged over three years OR that District will implement “every feasible measure”
 - Plan components: stationary sources, transportation control measures, area/indirect
 - To be updated triennially

Criteria Pollutant Control – Planning (cont.)



- Differences from federal
 - Plan elements limited to those within District authority
 - Continuous improvement rather than target dates
 - Ranking of measures
 - No citizen suit provisions

Criteria Pollutant Control - Regulations



- Federal New Source Performance Standards
 - Detailed industry-specific regulations establishing emissions limits for specific items of equipment
 - Federal regulations directly applicable to sources
- District-Implemented Regulations Required by Federal and California Clean Air Acts
 - New Source Review Permit Program Requirements
 - Specific Regulatory Actions Committed to by District in Attainment Plans
- Additional District Regulatory Provisions

District Regulations



- Substantive requirements
 - Best Available Retrofit Control Technology (BARCT)
 - Feasible measure
 - Federal requirements if submitted into California State Implementation Plan

- Procedural requirements
 - Noticed hearing
 - Analysis of overlapping requirements
 - Socioeconomic impact analysis
 - Incremental cost analysis
 - Board must find that rule meets requirements of necessity, authority, clarity, consistency, nonduplication, and reference

Criteria Pollutant Control – Permits

Pre-Construction Permits



- Pre-construction Permits for Major Sources
 - New Source Review – for non-attainment pollutants
 - Lowest Achievable Emissions Rate (LAER)
 - Emission Offsets – “No Net Increase” Requirement
 - “Prevention of Significant Deterioration” – for attainment pollutants
 - Best Available Control Technology (BACT)
 - Analysis of potential to cause violation of air quality standards
- Pre-construction Permits for Non-major Sources
 - Minor New Source Review
 - Incorporates all other applicable regulatory requirements

Criteria Pollutant Control – Permits (cont.)

Operating Permits & Equipment Registrations



- Operating Permit Requirements
 - District “Permit to Operate”
 - Incorporates conditions from Authority to Construct
 - Applies to all sources, including existing sources
 - “Title V” Operating Permit
 - Consolidates major facility permit requirements in a single document for transparency and ease of review
 - Can also require additional conditions to improve enforceability, e.g. enhanced monitoring
- Equipment Registration Requirements for Certain Sources That Do Not Require Permits
 - Small boilers
 - Restaurant char-broilers

Air Toxics Control



- Regulations
 - Federal – source category toxics standards
 - Example – Refinery Maximum Achievable Control Technology (MACT)
 - Example – Aluminum and other non-ferrous foundries area source standard (ZZZZZZ)
 - California –
 - ARB air toxic control measures
 - California Toxics Hot Spots Program
 - Assembly Bill (AB) 617 – Community monitoring and emission reduction plans
 - Air District –
 - Air District source category toxics rules
 - Regulation 11, Rule 18 – reduction of air toxics risk from existing facilities

Air Toxics Control (cont.)



➤ Permits

- Federal – Title V incorporates federal toxics requirements
- Air District –
 - New Source Review of Toxic Air Contaminants
 - Incorporate source category toxics requirements

Greenhouse Gases



- Federal – Permit requirements for large emitters:
 - Requirements apply to facilities with emissions over the “major facility” threshold for some other regulated pollutant and a GHG increase of more than 75,000 tpy
 - “Prevention of Significant Deterioration” pre-construction permits
 - “Title V” Operating Permits

Greenhouse Gases (cont.)



- California – Various regulatory initiatives, including:
 - ARB’s AB 32 implementation efforts (cap-and-trade, etc.)
 - Utilities’ renewable energy portfolio standards (“RPS”)
 - Motor vehicle tailpipe standards (“Pavley Bill”)
 - AB 398 – Cap-and-Trade program authorized through 2030
 - 2030 Scoping Plan approved December 2017

Greenhouse Gases (cont.)



- Air District –
 - AB 398
 - Removed Air District authority to regulate CO₂ at cap-and-trade facilities
 - Reaffirmed authority to otherwise regulate GHGs
 - Permit fees based on GHG emissions
 - Permit requirements for GHG emissions

Other Topics



- California Environmental Quality Act (CEQA)
- Senate Bill (SB) 375 – The Sustainable Communities Strategy and Climate Protection Act
- District Consultative Policy Role
 - Regional Transportation Plan (RTP)
 - Joint Policy Committee (JPC)/Bay Area Regional Collaborative (BARC)
- Prohibition on Public Nuisances
- Regulating Visible Emissions



BAY AREA
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AGENDA: 5

Major Facility Projects Update

**Stationary Source Committee Meeting
February 26, 2020**

**Nicholas Maiden, P.E.
Manager, Engineering**

Major Facilities



- Phillips 66 San Francisco Refinery (Rodeo)
- Marathon Refinery (Martinez)
- Lehigh Southwest Cement Company (Cupertino)
- Schnitzer Steel Industries, Inc. (Oakland)

Phillips 66 San Francisco Refinery (Rodeo)



- San Francisco Refinery is two facilities (Rodeo and Santa Maria) linked by 200-mile pipeline
- Rodeo facility, built in 1896, processes raw material (either crude oil or gas oil) that is received via pipeline or marine vessel
- Amount of crude oil and/or gas received by marine vessel is limited by throughput and number of vessels

Phillips 66 San Francisco Refinery (Rodeo)



Jose Carlos Fajardo/Bay Area News Group

Proposal:

- Backup for pipeline
 - No physical changes at the refinery
 - No increases in refinery process unit throughputs
- Increase in maximum allowable crude oil and/or gas oil received by marine vessels
 - From 59 vessels/year to 135 vessels/year
 - From 51,182 barrels/day to 130,000 barrels/day
- Increased marine receipts will be offset by decreased pipeline receipts

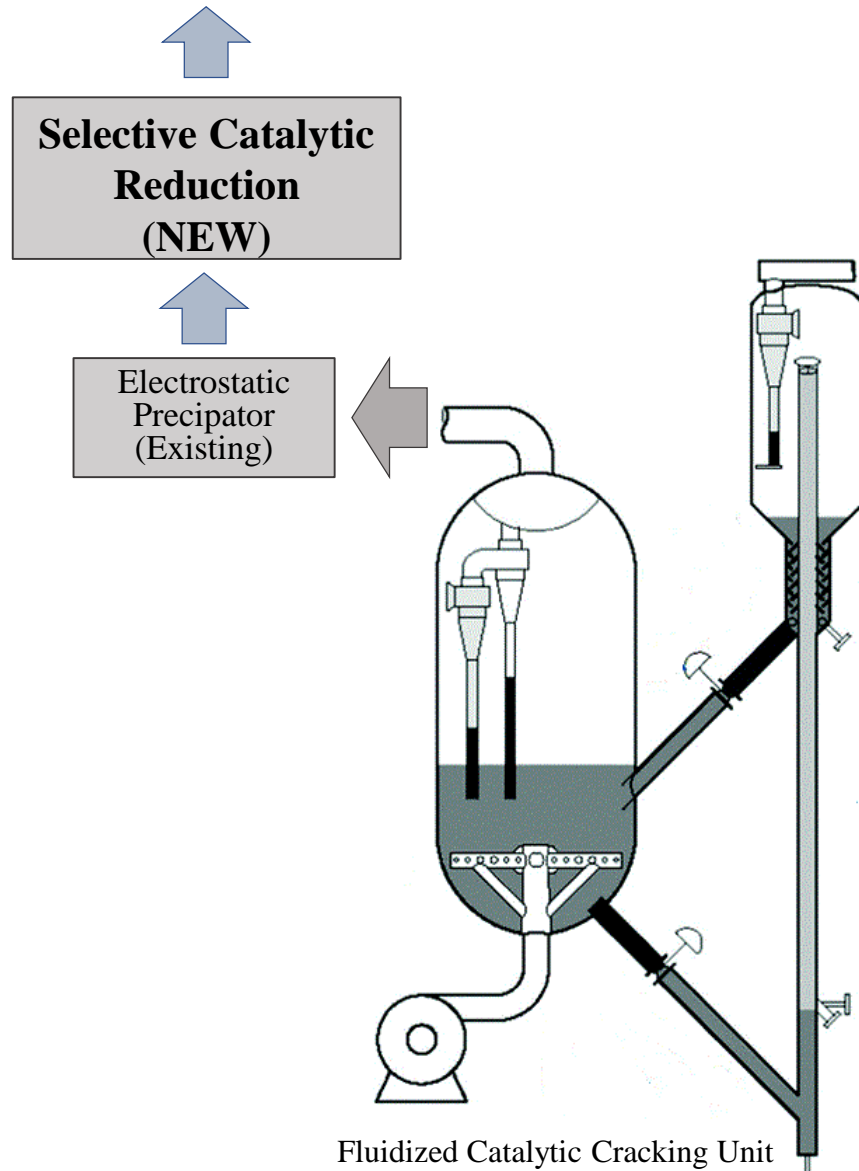
Marathon Refinery (Martinez)



[www. Marathonpetroleum.com/Operations/Refining/Martinez-Refinery](http://www.Marathonpetroleum.com/Operations/Refining/Martinez-Refinery)

- Martinez Refinery, built in 1913, processes raw material (either crude oil or gas oil) that is received via pipeline or marine vessel
- A fluidized catalytic cracking unit converts gas oil to lighter oils such as gasoline and diesel
- Fluidized catalytic cracking unit accounts for ~40 percent of facility-wide Oxides of Nitrogen (NO_x) emissions

Marathon Refinery (Martinez)



Proposal:

- Fluidized Catalytic Cracking Unit
- Proposal to install NO_x Control - Selective Catalytic Reduction
- Needed for compliance with existing annual NO_x limit (20 ppmv, dry at 0% O₂)

Lehigh Southwest Cement Company (Cupertino)



- Mining (1880s), Cement Plant (1939)
- Limestone is quarried, crushed, and combined with other raw materials in a high temperature kiln system to produce “clinker”
- Clinker is cooled, ground, and mixed with gypsum to produce Portland cement
- Facility also produces and sells aggregates

Lehigh Southwest Cement Company (Cupertino)



Proposal:

- Portable Rock Plant
 - Existing rock plant requires refurbishment
 - Temporary portable rock plant in interim
- Temporary Conveyor System
 - Damage to conveyor between kiln and mill
 - Temporary conveyor until damage is repaired
 - Subject of emergency variance
- U.S. EPA Consent Decree (December 2019)
 - Lowers maximum allowable NO_x rate
 - Establishes an interim Sulfur Dioxide (SO₂) rate and requires testing for final limit



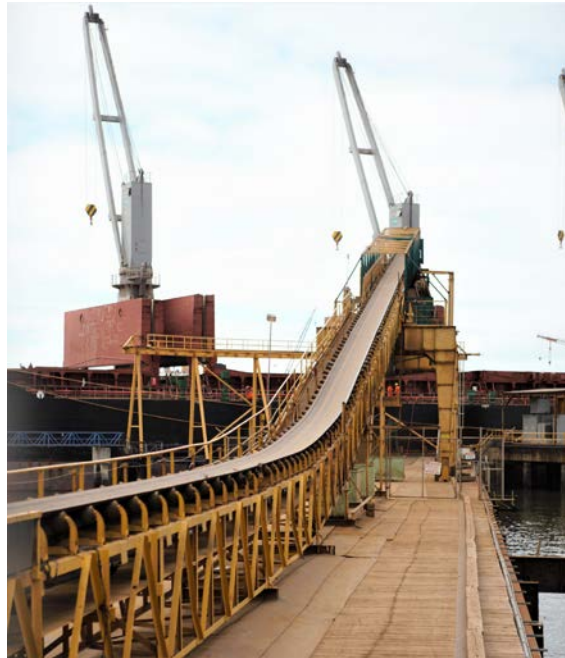
Schnitzer Steel Products Company (Oakland)



- Automobile/appliance scrap metal recycling and metal shredding operation

Proposal:

- Ocean-Going Vessel Project
 - Facility receives bulk carriers for loading of scrap metal to send overseas
 - Project to increase ship calls from 26 to 32 per calendar year
 - Needed to account for receiving smaller capacity ships and partially loaded ships
 - No changes in throughput
- Automobile Shredder Abatement Project
 - Required to enclose in 2017 application
 - Subsequent source testing revealed significant organic and toxic emissions
 - Project to abate with two regenerative thermal oxidizers and two packed bed scrubbers



Questions?

