Air District Legal Authorities 101

Stationary Source Committee Meeting
February 26, 2020

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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

California Constitution

CA Legislature
- California Clean Air Act
- Health & Safety Code

CARB
- CARB Regulations

Air Districts
- District Regulations

Polluting Activities (Stationary Sources)

U.S Constitution

U.S. Congress
- Federal Clean Air Act

U.S. EPA
- Code of Federal Regulations

Mobile Sources

Air Districts

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Air District Authority

- 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
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
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)
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
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
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

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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
Regulations

- Federal – source category toxics standards
  - Example – Refinery Maximum Achievable Control Technology (MACT)
  - Example – Aluminum and other non-ferrous foundries area source standard

- 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
Permits

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

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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
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)

• 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\textsubscript{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% O$_2$)
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
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\textsubscript{X} rate
  - Establishes an interim Sulfur Dioxide (SO\textsubscript{2}) rate and requires testing for final limit
 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