San Joaquin Valley Smoke Management Program and Consideration of Modifications to Agricultural Burning Requirements

Air Resources Board
California Environmental Protection Agency

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San Diego
Outline

- Smoke Management Program
- SB 705 Requirements
- Recommendation
Smoke Management Program
State Law Requirements

Two State Law Requirements Govern Agricultural Burning in the San Joaquin Valley

- State’s Smoke Management Guidelines
  - Required districts to strengthen smoke management programs
  - ARB to review and approve programs
- SB 705 requires scheduled burn phase-out
San Joaquin Valley Smoke Management Program

- Establishes 103 zones
- Sets burn allocations based on meteorology
- Prevents exceedances of federal standards
- Minimizes localized impacts
Air Resources Board Role

➢ Program Oversight
    - Daily Coordination Calls
    - Forecasting Consultation
    - Require Annual Reporting
Agricultural Burning Has Decreased Significantly

Source: District Burn Permit Data
SB 705 Requirements
SB 705 Provisions

- Requires District to:
  - Adopt agricultural burn phase-out schedule
  - Establish best management practices for certain weeds
  - Include provisions for diseased crops

- Allows burn prohibition postponements if economic and technological impediments exist
Initial Phases

- First three phases addressed:
  - Field crops
  - Prunings
  - Weed abatement
  - Diseased crops
  - Orchard removals
Final Phase

Addresses:

- Vineyard Removals
  - Grape, kiwi

- Surface Harvested Prunings
  - Almonds, walnuts, pecan, grape vines/canes, raisin trays

- Other materials
  - Brooder paper, deceased goats, diseased beehives

- Previously adopted postponements
  - Fig, citrus, and small orchard removals
  - Rice straw phase-out
  - Apple, pear, quince prunings and orchard removal
  - Weed abatement affecting waterways
Conditions to Postpone Prohibitions

- No economically feasible alternative to burning
- No long-term federal or State funding commitment for:
  - Continued operation of biomass facilities or
  - Development of alternatives to burning
- Burning will not cause or contribute to federal air quality standard violation
- ARB concurs that all requirements met
District Assessment of Feasible Alternatives

- Identified technologically feasible alternatives
- Evaluated economic feasibility
  - Used USDA, UC Cooperative Extension, California Ag. Commissioner, Dun & Bradstreet data on production, prices, and profit rates
  - Used orchard/vineyard removal contractor and agriculture industry data on cost of alternatives
Criteria 1: Economic Feasibility Evaluation

- Compliance cost of alternative as percent of profit
  - Additional cost of compliance
  - Impacts on net after tax profit
- If compliance cost is greater than 10% of profit, alternative not economically feasible
- ARB uses similar metric with 10% threshold
Prohibit Burning

Economically Feasible Alternative Available

- Grape Vine and Cane Prunings
  - Shred and incorporate into soil
- Fig Prunings
  - Shred and leave in place
- Brooder Paper
  - Send to Landfill
- Deceased Goats
  - Bury
Allow Limited Burning

Limited Economic Feasibility of Alternative

- Almond, Walnuts, and Pecan Prunings
  - Large farms: burning is prohibited
  - Smaller farms
    - Allow burning of up to 20 acre prunings per year
    - Allow additional burning depending on
      - Shredding cost and availability of timely service

- Fig Orchards and Other Orchards of 20 Acres or less
  - Reduce burning to 15 acres or less per location per year

- Rice Straw: Continue 70% burn allowance
Allow Burning

No Technologically Feasible Alternatives

- Beehives, Pome Fruit Prunings/Orchard Removals
  - Spread of disease
- Weed Abatement Affecting Waterways
  - Worker safety and water quality issues
- Raisin Trays
  - Lack of recycling market
Grape and Kiwi Vineyard Removal
- Removal of embedded wire required for chipping/biomass

Citrus Orchard Removal
- Type of wood increases processing cost

No Economically Feasible Alternative
Criteria 2: Current Funding for Alternatives

No long-term federal or State funding commitment for:
- Continued biomass facility operation or
- Development of alternatives to burning
Criteria 3: Air Quality Impact of Postponements

- District programs ensure burning does not contribute to short-term standard violations.
- Air quality analysis shows burning does not contribute substantially to annual PM2.5 standard violation.
Criteria 4: ARB Staff Recommendation

- The basis for postponing agricultural burn prohibitions meets the statutory criteria

- ARB staff recommends
  - Provide initial two year concurrence with District’s postponements
  - Work with Legislature and other State agencies on incentive funding to increase agricultural waste use at biomass facilities
  - Pursue permit conditions providing more certainty on use of agricultural waste at biomass facilities
  - In 2012 reconsider ARB concurrence based on progress made
  - Provide for an extension of concurrence if statutory criteria continue to be met