California’s Toxic Air Contaminant Program for Pesticides

January 2011

NOTE: red text indicates a legal requirement under TAC law or regulations
California Toxic Air Contaminant Act
Food and Agricultural Code sections 14021-14027

- Requires ARB to monitor pesticides at DPR’s request
- Requires DPR to assess risks from pesticide air exposure, in consultation with OEHHA and review by Scientific Review Panel (SRP)
  - California Code of Regulations specifies the criteria to list a pesticide as a TAC
- Requires DPR to mitigate risks from pesticide air exposure, in consultation with OEHHA, ARB, county agricultural commissioners and air pollution control districts
Pesticide TAC monitoring
Application-site monitoring by ARB and DPR

8 – 24 sites
30 – 300+ feet from field
4 – 24-hour intervals
2 – 10 days

Sorbent tube for semi-volatiles
Air sampling pump
Canister for volatiles
Pesticide TAC monitoring
Ambient monitoring by ARB and DPR

- 4 – 6 high use communities
- 24-hour samples
- 3 – 4 days/week, 4 – 8 weeks
Pesticide TAC risk assessment

- DPR risk characterization document prepared in consultation with OEHHA and ARB includes
  - Executive summary
  - Environmental fate – includes pesticide use data
  - Exposure assessment – includes air monitoring data
  - Risk characterization – includes potency, mode of action, reference concentrations, margins of exposure, cancer risk
    - Comparison of risk to criteria for listing as a TAC
  - OEHHA findings
Pesticide TAC listing criteria
California Code of Regulations section 6890

• “A pesticide shall be identified as a toxic air contaminant if its concentrations in ambient air are greater than the following levels (for the purposes of this Section, a threshold is defined as the dose of a chemical below which no adverse effect occurs):

  – (a) For pesticides which have thresholds for adverse health effects, this level shall be ten-fold below the air concentration which has been determined by the director to be adequately protective of human health.

  – (b) For pesticides which do not have thresholds for adverse health effects, this level shall be equivalent to the air concentration which would result in a ten-fold lower risk than that which has been determined by the director to be a negligible risk.”
Pesticide TAC risk assessment review

- Public comment – Pesticide Registration and Evaluation Committee workshop
- Responses to comments
- Scientific Review Panel evaluation and findings
SRP legal requirements for pesticides
Food and Agricultural Code sections 14023(b) and (c)

• “The panel shall review, as appropriate, the scientific data on which the report is based, the scientific procedures and methods used to support the data, and the conclusions and assessments on which the report is based. The panel shall submit its written findings to the director within 45 days after receiving the report, but it may petition the director for an extension of the deadline, which may not exceed 15 working days.”

• “If the scientific review panel determines that the health effects report is seriously deficient, the report shall be returned to the director who shall revise and resubmit the report, within 30 days following receipt of the panel's determination, to the panel prior to development of emission control measures.”
Pesticide TAC listing process

• DPR Director proposes to list as a TAC within 10 working days of receiving SRP findings, if criteria met

• Formal rulemaking process to list, including public hearing

• TAC listing triggers risk management evaluation
Pesticide TAC risk management and mitigation

- Consultation with other agencies – OEHHA, ARB, air pollution control districts, county agricultural commissioners
- Additional monitoring and data analysis
- Regulatory options include, but are not limited to
  - Product label amendments
  - Applicator training
  - Restrictions on use patterns or locations
  - Changes in application procedures
  - Reclassification of the pesticide as a restricted material
  - Product cancellation
Current pesticide TAC program status

- 3 ARB pesticide monitoring studies in progress
- 3 pesticide TAC risk assessments in progress
- 45 pesticides listed as TACs
  - 8 pesticides listed through evaluation process
  - 37 federal hazardous air pollutants listed administratively
- 1 pesticide TAC administrative listing in progress
- 4 pesticide TAC mitigations in progress or completed
Questions and additional information

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