More Stringent Permitting Requirements for Proposed New/Modified Stationary Sources of Air Pollution Located in Impacted Communities or in Proximity to Sensitive Receptors

CARE Task Force Meeting

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Presentation Outline

1. Background information

2. Draft regulatory concept

3. Project schedule

Air District Regulatory Authority and Permit System

➢ Air districts have primary authority to regulate stationary (as opposed to mobile) sources of air pollution

➢ Air districts may establish a permit system for pre-construction review of proposed new/modified stationary sources

➢ Permits may be denied for new/modified sources if the APCO is not satisfied that the source will comply with applicable district, state, and federal air quality requirements

➢ The APCO may impose permit conditions that are reasonably necessary to ensure compliance with applicable air quality requirements

➤ Applicable air quality requirements
  - General rules
    - e.g., BAAQMD Regulation 6, Rule 1: Particulate Matter, General Requirements
  - Source category-specific rules
    - e.g., BAAQMD Regulation 8, Rule 20: Graphic Arts Printing and Coating Operations
  - State and federal rules
    - e.g., NESHAP, NSPS, ATCM
  - New Source Review (NSR) rules
    - Best Available Control Technology (BACT)
    - Emission Offsets
    - Air Quality Impact Analysis (AQIA) [criteria air pollutants and their precursors] and Health Risk Screening Analysis (HRSA) [toxic air contaminants]
      - Site-specific, dispersion modeling-based, analyses

Cumulative Impacts
in AQIA and HRSA

➢ Air Quality Impact Analysis
  ▪ EPA Guidelines followed
  ▪ Pollutant-specific cumulative air quality impact approach used
  ▪ Ambient air quality standards (AAQS) have been set
  ▪ Ambient air quality monitoring data, supplemented with modeling of local sources if needed, is used to establish background pollutant levels
  ▪ Significant Impact Levels (SILs)
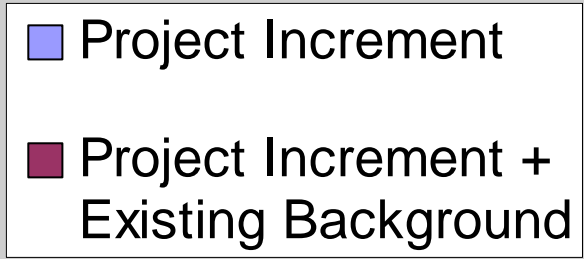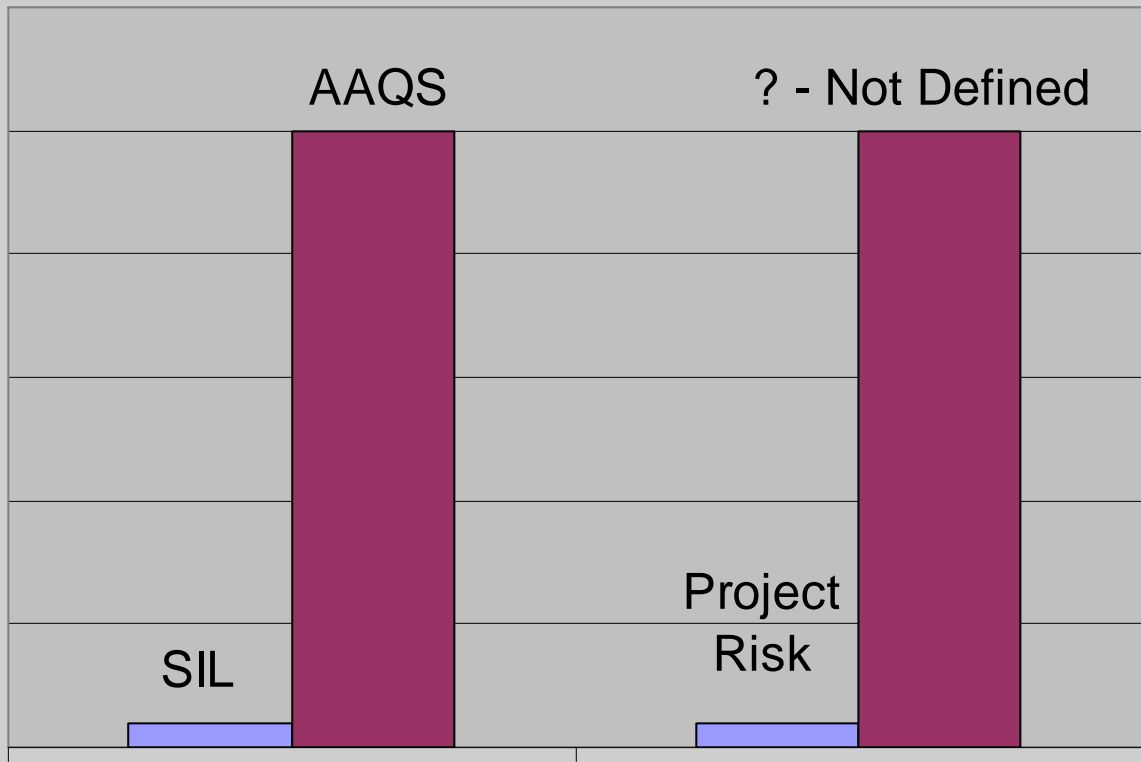   • Project-based incremental de minimis levels

➢ Health Risk Screening Analysis
  ▪ OEHHA Guidelines followed
  ▪ Additive risk approach used for pollutant mixtures
  ▪ Incremental project de minimis impact approach used
    • No standards have been set for cumulative risks
    • Lack of ambient air quality monitoring data, and high-resolution modeling input data, for determining background pollutant levels

Draft Regulatory Concept

➢ Phase I

- Address Toxic Air Contaminants
- Apply to new/modified sources in Impacted Communities and in proximity to sensitive receptors
- Use existing NSR approach in BAAQMD Reg. 2, Rule 5, but reduce TBACT thresholds, and Project Risk Limits, by a factor of two
  - TBACT: > 0.5 in-a-million cancer risk, and/or chronic hazard index (HI) > 0.10
  - Project Risk Limits: 5.0 in a million cancer risk; chronic and acute HI = 0.50
- Add new cumulative health risk tracking requirement in Impacted Communities

➢ Phase II

- Address criteria air pollutants
- Focus on fine particulate matter ($PM_{2.5}$)

Phase I Issues

- Definitions
  - "Impacted Communities"
  - "Sensitive receptors"
  - "In Proximity to" (if a radius approach is used)
- Exemptions
  - Certain types of sources located at sensitive receptor facilities (e.g., backup generators at hospitals and/or schools)?
  - Service-based commercial facilities (e.g., gas stations)?
- Data and software needs
  - Boundaries of Impacted Communities
  - Database of each type of sensitive receptor with locations and boundaries (needs to be periodically updated)
  - GIS tools to layer HRSA results on base maps with sensitive receptors and Impacted Communities
  - Databases and tools to track cumulative health risks in each Impacted Community

Project Schedule

➢ Public workshop on amendments to Reg. 2, Rule 5 expected in July 2009

➢ Rule adoption is feasible in late 2009 if general approach is based on existing methodologies, and scope of project is kept reasonable