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

CARE Cumulative Impacts Working Group Meeting

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Presentation Outline

1. Review of background information
2. Review of draft regulatory concept
3. Update since last meeting

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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

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Regulatory Overview

- 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

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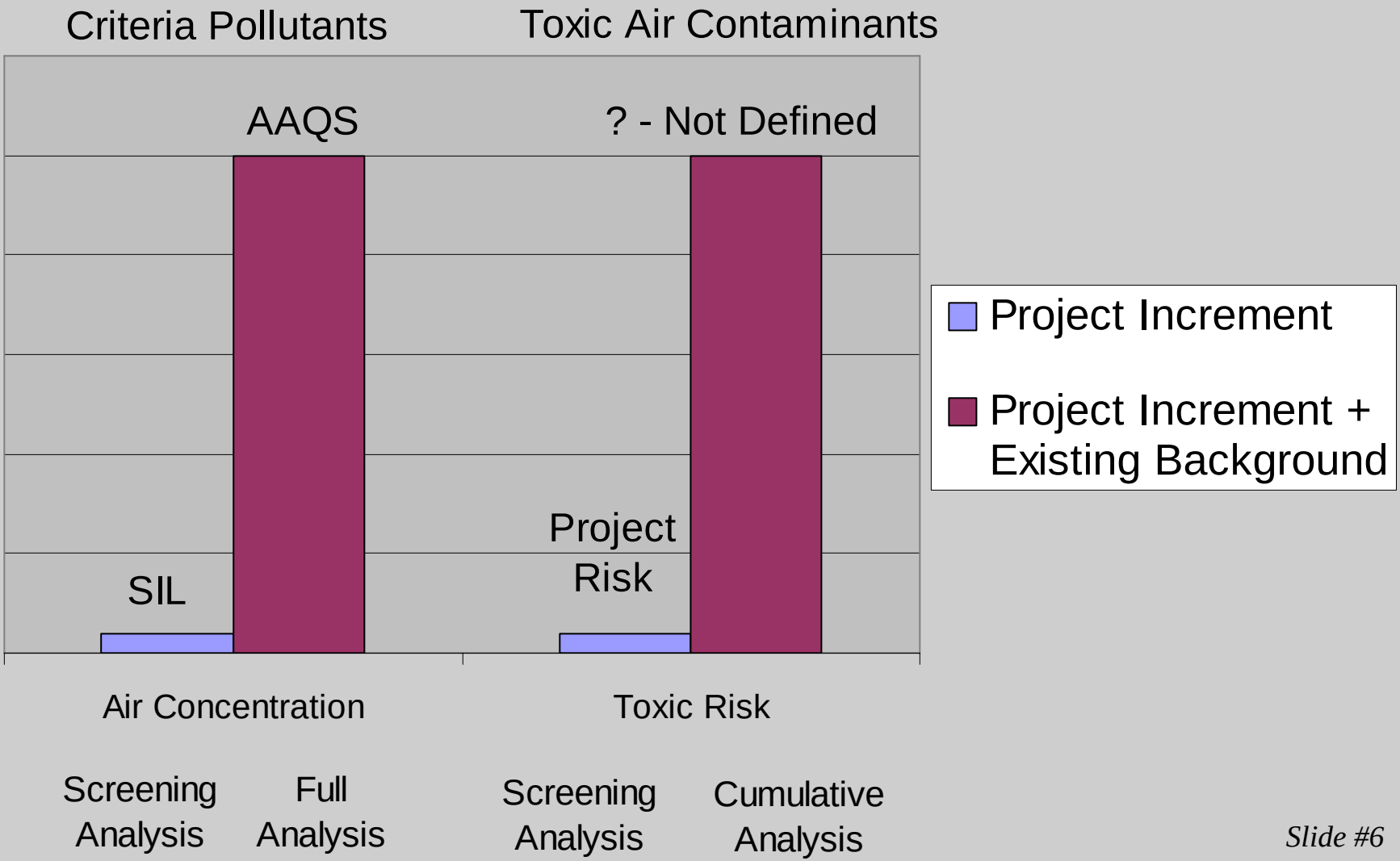
Cumulative Impacts in AQIA and HRSA

- 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

New Source Review Approaches for Regulating Criteria Pollutants and Toxic Air Contaminants



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 ($PM_{2.5}$)

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Phase I Update

- Definitions
  - "Impacted Communities"
    - Use most recent CARE Program data to establish boundaries
    - Factors to be considered: Gridded cancer risk-weighted emissions, modeled cancer risk, gridded sensitive populations, gridded income levels, location of roadways
    - Focus on sources located within impacted communities
    - Complete periodic boundary updates
    - Localized hot spots – may be better addressed in Phase II
  - "In Proximity to"
    - 500 feet may be appropriate
  - "Sensitive Receptor"

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Data on Sensitive Receptors

- Department of Education
  - Public schools, private schools, nonpublic nonsectarian schools
- Office of Statewide Health Planning and Development (OSHPD)
  - Hospitals, long-term care facilities, primary care clinics, specialty clinics, home health agencies and hospice
- Department of Social Services
  - 23 types of facilities licensed including child care centers, family child care, residential care for the chronically ill and elderly

Use of Sensitive Receptor Data

- Site Address of licensed facilities
  - Address geo-coding
    - Derived from US Census Bureau TIGER/Line data
- Ideally need boundaries of licensed facilities
- Link site address with parcel database ?
- May need to start simple (e.g., K-12 schools)
  - Expand as GIS capabilities improve

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Phase I Update

- 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