Public Hearing to Consider Adoption of Proposed Amendments to REGULATION 2, RULE 5 NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS

Board of Directors Meeting
December 7, 2016

Sanjeev Kamboj
Manager, Engineering Division
OUTLINE

• Background
• Proposed Rule 2-5 Revisions
• Impacts of Proposed Rule 2-5 Revisions
• CEQA and Socioeconomic Analysis
• Public Outreach
• Recommendations
EFFECTIVENESS OF CONTROL PROGRAMS

Bay Area Lifetime Residential Cancer Risk* from Toxic Air Contaminant (TAC) Exposure

* Cancer risk is based on average ambient air monitoring data and the population wide risk assessment methodology presented in OEHHA’s 2015 HRA Guidelines.
STATIONARY SOURCE PROGRAMS

- Rule 2-5 Toxics New Source Review (NSR)
- California Environmental Quality Act (CEQA)
- Community Air Risk Evaluation (CARE)
- Stationary Source Control Measures
- Toxics Contaminant Control Programs
- Air Toxics Hot Spots Program
REGULATION 2, RULE 5 NEW SOURCE REVIEW FOR TACs

• Implements Air District’s Health Risk Assessment (HRA) Procedures and Risk Management (RM) Policies through the Permitting Program
  ▪ 1987: Initiated Toxic New Source Review (NSR) Program
  ▪ 2005: Codified as Regulation 2, Rule 5
  ▪ 2010: Included Age Sensitivity Factors

• Follows Statewide HRA and RM Guidance
  ▪ 1999: SB25 – Children’s Environmental Health Protection Act
  ▪ 2015: Office of Environmental Health Assessment (OEHHA), California Air Resources Board (CARB) & CAPCOA Updated HRA and RM Guidelines
**SUMMARY OF REGULATION 2, RULE 5**

- **Health Risk Assessment (HRA) Requirements**
  - Requires HRA if TAC Emissions for a project to install new or modify existing equipment exceed a TAC Trigger Level
SUMMARY OF REGULATION 2, RULE 5

Source Risk Thresholds

Requires **Best Available Control Technology for Toxics (TBACT)** if a source of air pollution exceeds risk thresholds:

- Cancer Risk > 1.0 in a million
- Chronic Hazard Index > 0.2

Project Risk Thresholds

Limits Total Project Health Risks

- Cancer Risk ≤ 10.0 in a million
- Hazard Index ≤ 1.0
PROPOSED RULE 2-5 CHANGES

• Conformance with State Guidance Updates
  ▪ Update the Air District’s HRA Guidelines to Incorporate the State’s Guideline Changes
  ▪ Update Health Effects Values and TAC Trigger Levels
  ▪ Update Regulation Language to Conform with State Guidelines
PROPOSED RULE 2-5 CHANGES

• **Rule Improvements**
  - Revise Emission Calculation Procedures for Modified Sources
  - Add Net Project Risk Limits for Pre-1987 Modified Sources
  - Revise Project Definition – Extend Related Projects to 3 years
  - Clarify Procedures for Source Alterations
IMPACTS OF RULE 2-5 REVISIONS

• Increase the Stringency of this Rule
  ▪ For most projects, cancer risk will increase by about 40% compared to current procedures
  ▪ For projects involving multi-pathway TACs, cancer risk may increase by 2-5 times
  ▪ Less toxic emission increases will be allowed for new projects than allowed by current rule
  ▪ All emissions from pre-1987 modified sources will now be included in HRAs
IMPACTS OF RULE 2-5 REVISIONS

• Increase the Number of Projects Triggering HRAs
  ▪ About 100 more NSR HRAs per year

• Increase the Number of Projects Required to Implement Risk Reduction Measures
  ▪ About 60 more projects per year
CEQA ANALYSIS

• Report by Environmental Audit, Inc.
• Finding of No Adverse Environmental Impact
• Recommend Negative Declaration
SOCIOECONOMIC ANALYSIS

• Report by BAE Urban Economics

• On Average – No Significant Impacts
  ▪ In most cases where a project exceeds the thresholds, limits to operating hours or emission point heights can be implemented

• Potentially Significant Impacts (10-17% of profits) for Individual Projects based on Worst-case Assumptions at:
  ▪ Small Hotels/Motels (110 facilities)
  ▪ Small Electric Power Generation Plants (20 facilities)
  ▪ Metal Coating and Engraving Shops (5 facilities)
**PUBLIC OUTREACH**

- **Open Houses:**
  - January 28, 2016  Redwood City
  - February 2, 2016  San Jose
  - February 4, 2016  Richmond

- **Public Comments Accepted:**
  - January 13, 2016 through March 9, 2016
  - October 26, 2016 through November 28, 2016

- **Written Comments Received From:**
  - Western States Petroleum Association (WSPA)
  - CA Council for Environmental and Economic Balance (CCEEB)
  - Phillips 66 Company
  - Valero Refining Company
<table>
<thead>
<tr>
<th>KEY ISSUES</th>
<th>RESOLUTIONS</th>
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<tbody>
<tr>
<td>Location of TAC trigger level table</td>
<td>Retain in rule</td>
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<tr>
<td>Elimination of 1987 baseline for modified sources</td>
<td>Add alternative net project risk limits for pre-1987 modified source projects</td>
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<td>Impacts on gas stations</td>
<td>Delay implementation of HRA Guidelines for gas stations</td>
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<tr>
<td>Impacts on diesel engines smaller than 50 bhp</td>
<td>Add an HRA exemption for engines smaller than 50 bhp</td>
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### Comments and Responses on Public Hearing Documents

#### Key Issues

<table>
<thead>
<tr>
<th>Interaction with proposed rule 11-18</th>
<th>Rule 2-5: New and modified sources (pre-construction); TBACT&lt;br&gt;Rule 11-18: Existing sources (facility-wide); TBARCT&lt;br&gt;Both rules follow state guidelines</th>
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<tr>
<td>Re-assess risk action levels as other Districts have done</td>
<td>Some Districts are using different health risk calculation procedures that are causing them to adjust their risk action levels</td>
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<td>Insufficient analysis for refinery projects</td>
<td>District evaluated all HRAs conducted during 2010-2015. Approx. 96% of refinery HRAs conducted during this period show cancer risk less than 2 in a million. Our analysis shows that refinery projects will continue to comply with the current risk limits using 2015 OEHHA HRA Guidelines.</td>
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RECOMMENDATIONS

• Approve CEQA Initial Study/Negative Declaration

• Adopt proposed amendments to Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants
## Winter PM$_{2.5}$ Seasons

<table>
<thead>
<tr>
<th>Year</th>
<th>Days &gt; 35 µg/m$^3$</th>
<th>Winter Spare the Air Alerts</th>
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<tbody>
<tr>
<td>2013/2014</td>
<td>15</td>
<td>30</td>
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<tr>
<td>2014/2015</td>
<td>6</td>
<td>23</td>
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<tr>
<td>2015/2016</td>
<td>0</td>
<td>1</td>
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<td>2016/2017</td>
<td>0</td>
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- **Spare the Air Alert Called for:**
- **Days > 35 µg/m$^3$ 24-hr NAAQS:**
## Schedule: Rules 11-18 and 12-16

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<thead>
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<th>Milestones / Deliverables</th>
<th>Date</th>
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<tr>
<td>Draft Project Description Issued</td>
<td>Complete</td>
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<td>Draft Regulations, Final NOP Published and Draft Staff Report released for comment.</td>
<td>Complete</td>
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<td>Workshops/EIR Scoping Meetings held</td>
<td>Complete</td>
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<td>CEQA NOP / Initial Study Comment Deadline</td>
<td>December 2, 2016</td>
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<td>NOP Comments Received and Initial Tasks completed</td>
<td>December 2016</td>
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<tr>
<td><strong>Board Hearing / CEQA EIR Review Process</strong></td>
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<td>Final Regulatory Language and Staff Report, Socioeconomic Analyses, CEQA Draft EIR released</td>
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<td>Comment deadline</td>
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<td>Public meetings held</td>
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<td>Prepare response to comments</td>
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<td><strong>Board of Directors Meeting to Consider Adoption</strong></td>
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