Kirkhill, Inc.
AB 2588 Public Meeting
South Coast Air Quality Management District
November 13, 2019
Purpose of Meeting

- Notify public of estimated health risks in 2015
- Background about Kirkhill, Inc.
- About Health Risk Assessments
- Estimated health risks today
- Public input and comments
Who we are

• The South Coast AQMD is the regional agency responsible for air quality for areas in LA, Orange, Riverside and SB Counties
  • Largest of the 35 local air agencies in CA
  • Work with CARB and EPA to meet state and federal standards

• Responsibilities
  • Control emissions from stationary sources (e.g., power plants)
  • Comply with U.S. government air quality standards
  • Permit and inspect 28,400 affected businesses
  • Administer $100 million of incentive funding annually
South Coast AQMD’s Air Toxics Program

Over 25 rules to reduce toxic air contaminants

Community meetings and direct public communication 1-800-CUT SMOG

All new and modified sources are evaluated for toxics during permitting (Rules 1401 and 1401.1)

Requires Health Risk Assessments, Risk Reduction Plans, and Public Notification

Ambient monitoring near facilities and community monitoring

Ensures facilities are complying with Toxic Rules

Measures regional toxic air contaminants throughout air basin

South Coast AQMD Toxics Rules

Rule 1402 and Toxics Hot Spots Program

Ambient Air Monitoring and AB 617

Multiple Air Toxics Emissions Study

Compliance

Permitting

Community Meetings and 1-800-CUT-SMOG
The Air Toxics “Hot Spots” Information & Assessment Act (AB 2588)

• State law enacted in 1987 (Connelly)
• Public Right-to-Know Program
• Purpose
  • Collect emissions data with updates every 4 years
  • Identify facilities having localized impacts
  • Evaluate potential health risks through Health Risk Assessments
  • Notify residents of those potential health risks
  • Reduce health risks below certain thresholds

• Rule 1402
  • Implements requirements of AB 2588
  • More stringent requirements for reducing health risk
Kirkhill, Inc.  

- Located at 300 E Cypress Street in the City of Brea  
- Rubber manufacturing facility  
  - Rubber seals, gaskets, components  
  - Primarily for the aerospace and defense industries, but also for medical and other applications  
- HRA required based on 2015 emissions  

Cancer Risk = 10 in one-million (residential)  
Cancer Risk = 10 in one-million (worker)
Operations at Kirkhill, Inc.

Mixing
Mixing additives with raw rubber for achieving desired properties in final product

Milling
Forming rubber compounds into sheets or strips, warming up the rubber, and reintroducing recycled rubber compounds

Extrusion
Pressing the rubber into a desired shape and combine previously mixed rubber compounds

Curing
Applying heat to rubber mixed with sulfur to induce vulcanization. Includes rotocuring, curing ovens, and autoclave curing

Source of 1,3-butadiene, acrylonitrile, and benzidine

Source of 1,3-butadiene, benzidine, and hexavalent chromium

Source of acrylonitrile

Source of 1,3-butadiene
About Health Risk Assessments

Estimates the chance that a person may experience a health effect from toxic air contaminant emissions

“Snapshot” based on toxic air contaminant emissions from one year of operation
Assumes 2015 emissions levels for 30 years

Snapshot can change if toxic air contaminant emissions are reduced

Conservative assumptions - people are outdoors 24 hours, 7 days a week in one location
3 Key Health Risk Elements of Rule 1402

• Estimates the increased probability for cancer
• Expressed in “Chances in a million”

• Estimates non-cancer health effects
• Acute non-cancer effects are from short-term exposure
• Chronic non-cancer effects are from long-term exposure
• Expressed using a Hazard Index (HI)

• Estimates the increase in the occurrence of cancer cases in a population subject to a cancer risk of 1 in a million or greater
• Cancer burden > 0.5 requires risk reduction
## Health Effects of Key Toxic Air Pollutants

<table>
<thead>
<tr>
<th>Toxic Air Pollutant</th>
<th>Health Effect</th>
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<tbody>
<tr>
<td>Hexavalent Chromium</td>
<td>Exposure</td>
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<tr>
<td>1,3-Butadiene</td>
<td>Long-term</td>
</tr>
<tr>
<td>Acrylonitrile</td>
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<td>Benzidine</td>
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Rule 1402 Health Risk Thresholds

**Cancer Risk Thresholds**
- **Risk Reduction**: Cancer Risk > 25 in one million
- **Public Notification**: Cancer Risk > 10 in one million

**Non-Cancer Risk Thresholds**
- **Risk Reduction**: Non-Cancer HI > 3
- **Public Notification**: Non-Cancer HI > 1

**Cancer Burden Threshold**
- **Risk Reduction**: Cancer Burden > 0.5
Kirkhill, Inc. HRA Results

- Residential cancer risk up to 18.8 chances in-one-million
- Worker cancer risk up to 15.9 chances in-one-million
- Residential long-term and short-term non-cancer risks below threshold Hazard Index < 1
- Worker long-term and short-term non-cancer risks below threshold Hazard Index < 1
Next Steps

• Risk Reduction Plan is not required.
• Kirkhill has voluntarily eliminated the usage of a yellow dye containing hexavalent chromium, the toxic air pollutant that accounts for over 50% of the risk.
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Questions?