Purpose of Meeting

- Notify public of 2016 estimated health risks
- Background about Anaplex
- About Health Risk Assessments
- Steps taken to reduce the health risks
- Estimated health risks today
- Public input and comments
SCAQMD’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 SCAQMD rules and regulations
- Measures regional toxic air contaminants throughout air basin

SCAQMD Toxics Rules

Rule 1402 and Toxics Hot Spots Program

Ambient Air Monitoring and AB617

Community Meetings and 1-800-CUT-SMOG

Permitting

Multiple Air Toxics Emissions Study

Compliance
Timeline of Key Events

Oct 2016
Ambient monitors measure high levels of hexavalent chromium near Anaplex

Nov 2016: SCAQMD holds Town Hall Meeting to inform public of initial findings of ambient monitoring

Dec 2016: Anaplex designated as a Potentially High Risk Level facility under Rule 1402

Jan 2017: Hearing Board granted a Stipulated Order for Abatement

March 2017: Anaplex submits an Early Action Reduction Plan

May 2017: Early Action Reduction Plan conditionally approved

June 2017: Health Risk Assessment and Risk Reduction Plan Submitted

Oct 2018: Revised Air Toxics Inventory Report and Revised Health Risk Assessment Approved (Revised Risk Reduction Plan pending approval)
Potentially High Risk Level Facilities

What is a Potentially High Risk Level Facility

• Facilities that are expected to or have exceeded the Significant Risk Level (Cancer Risk > 100 in-a-million)
• Determination based on emissions data, source test, or ambient monitoring data
• Very high levels of hexavalent chromium measured at ambient monitors near Anaplex*

Expeditied Implementation

• Submit
  • Air Toxics Inventory Report,
  • Health Risk Assessment and
  • Risk Reduction Plan

Addresses High Health Risks Early

• Submittal and implementation of Early Action Reduction Plan

Better Overall Public Health Sooner

• Completes Overall Risk Reduction Sooner than Traditional AB 2588 Program

* http://www.aqmd.gov/home/news-events/community-investigations/air-monitoring-activities
Anaplex Corporation

• Located at 15547 Garfield Avenue in the city of Paramount
• Performs metal finishing, electroplating and anodizing primarily for the aerospace industry
• Business in operation since 1962
Operations at Anaplex

Hexavalent Chromium Tanks
Anodizing and heated seal tank are source of Hexavalent Chromium and Sulfuric Acid emissions

Coating Operations (Spray Booth)
Chromate based primers are source of Hexavalent Chromium emissions

Solvent Baths
Degreasing operations source of Methyl Ethyl Ketone emissions
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 2016 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
Health Risk Assessment Process

**Hazard Identification**
Identifies health problems and potency of toxic air contaminants.

**Dose-Response**
Accounts for the increased chances of having health effects when pollutant levels are higher.

**Exposure**
Estimates the amount of time a person could be exposed to toxic air contaminants. Residential exposure is 30 years, and off-site worker exposure is 25 years.

**Sensitivity**
Accounts for children being more sensitive to the health effects of air toxics.

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1 Uses methodology established by the California Office of Environmental Health Hazard Assessment
3 Key Health Risk Elements of Rule 1402

**Cancer Risk**
- Estimates the probability of a cancer cases
- Expressed in “Chances in a million”

**Non-Cancer Risk**
- 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)

**Cancer Burden**
- 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>
</tr>
</thead>
<tbody>
<tr>
<td>Hexavalent Chromium</td>
<td>Long-term inhalation (years to decades) can increase the chance or probability of developing cancer, e.g. lung cancer</td>
</tr>
<tr>
<td>Methyl Ethyl Ketone</td>
<td>Short-term exposure can have harmful non-cancer effects on the human respiratory system</td>
</tr>
<tr>
<td>Sulfuric Acid</td>
<td>Long-term exposure can have harmful non-cancer effects on the human respiratory system</td>
</tr>
</tbody>
</table>
## Rule 1402 Health Risk Thresholds

### Cancer Risk Thresholds
- **Significant Risk**: Cancer Risk > 100 in one million
- **Risk Reduction**: Cancer Risk > 25 in one million
- **Public Notification**: Cancer Risk > 10 in one million

### Non-Cancer Risk Thresholds
- **Significant Risk**: Non-Cancer HI > 5
- **Risk Reduction**: Non-Cancer HI > 3
- **Public Notification**: Non-Cancer HI > 1

### Cancer Burden Threshold
- **Risk Reduction**: Cancer Burden > 0.5
Early Action Reduction Plan – Required if Risk > Significant Risk Level

- Measures that can be implemented immediately to reduce the facility-wide health risk below 100 in one million
- Current health risk estimates “today” represent implementation of Early Action Reduction Plan

Risk Reduction Plan – Required if Risk > Risk Reduction Threshold

- Permanent, verifiable and enforceable risk reduction measures
- Must be implemented within 2 years from the approval of plan or sooner
- Must reduce the facility-wide health risk below 25 in-a-million for cancer risk and a Hazard Index of 3 for non-cancer health effects
Implementation of Key Early Action Reduction Measures

- Discontinued spray paint application of chromate containing compounds
- Closed access doors facing Garfield Avenue
- Discontinued air sparging
- Removed pickling tank
- Shut down hard anodizing tank until Permit to Construct has been obtained from SCAQMD
- Weekly confirmation of surface tension of chromic acid tank
- Covered chromic tanks when not in use
- Maintain a housekeeping, maintenance, and roof cleaning plan
- 2016 estimated cancer risk is well above Significant and Risk Reduction Thresholds
- 2016 hexavalent chromium emissions from spray booths and process tanks represent 99% of the cancer risk
- Early Action Reduction Plan has reduced cancer risks below Risk Reduction Threshold
- Risk Reduction Plan will further reduce cancer risk
• 2016 chronic health risk is below Risk Reduction Threshold
• 2016 acute health risk is above Significant and Risk Reduction thresholds
  • Methyl Ethyl Ketone emissions from degreasing operations represent 98% of the acute health risk
• Early Action Reduction Plan has reduced non-cancer risks below Risk Reduction Threshold
• Risk Reduction Plan will further reduce non-cancer risk
Next Steps

• Continue ambient monitoring of hexavalent chromium emissions
• Finalize Risk Reduction Plan
• Health risks are expected to further reduce after implementation of Risk Reduction Plan
• Questions?
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