July 11 & 12, 2012


Victor Douglas
Principal Air Quality Specialist
Overview

• Background
• Focus
• Draft Proposals
• Rule Development Process
• Next Steps
Background

- Stationary Source Measure 1 in the 2010 Clean Air Plan
- Reduce Fugitive Emissions from Metal Facilities
- Extensive Outreach to Industry and Community Groups
  - Meetings
  - Site visits
  - Conference calls
- 1st Draft Proposal / Workshops July 2011
- Review / Revise Draft Proposal
Metal Melting & Processing

- **Foundries & Forges**
  - Metal melting / casting and heat treatment
  - 25-30 permitted facilities

- **Emissions & Controls**
  - Particulate matter (including toxic metals)
  - Visible emissions
  - Odorous substances

- **Nuisance Complaints**
Metal Melting Processes & Emissions

PM: particulate matter; VE: visible emissions; VOCs: volatile organic compounds; TACs: toxic air contaminants
Metal Recycling & Shredding

• **Scrap Metal Recycling**
  – Collection, shredding and sorting of metals
  – Numerous facilities in the Bay Area
  – 3 major operations

• **Emissions**
  – Particulate matter (including toxic metals)
  – Visible emissions
  – Toxic compounds

• **Nuisance Complaints**
Recycling Steps & Emissions

PM: particulate matter; VE: visible emissions; TACs: toxic air contaminants

**Metal Receipt** -> **Shredding (hammermill)** -> **Sorting (magnets)**

PM, VE, TACs -> PM, VE, TACs -> PM, VE, TACs

PM, VE, TACs

**“Fluff”** -> **“Zorba & Zurich” (eddy currents)**

PM, VE, TACs

PM, VE, TACs

PM, VE, TACs

Fe Metals

Non-Fe & Stainless Metals
Mitigation Measures Used

• Particulate & Visible Emissions
  – Baghouses
  – Dustbusters
  – Tarps / Covers
  – Wet Mopping
  – Cyclones
  – Shakers
  – Wind Screens
  – Street Sweepers

• Odors / VOCs
  – Afterburners
  – Reformulated Binders
  – Carbon Adsorbers
  – Enclosures / Screens
Current Air Rules & Regs

- **Federal Regulations for Toxics**
  - Major Source Iron and Steel Foundries
  - Secondary Aluminum Production
  - Electric Arc Furnace Steelmaking Facilities
  - Area Source Iron and Steel Foundries
  - Aluminum, Copper, and Other Nonferrous Foundries

- **State Regulation**: Non-Ferrous Metal Melting ATCM

- **District Rules**
  - Permits
  - Particulate Matter
  - Odorous Substances
Focus of Regulatory Effort

• Reduce Fugitive Emissions
  – Particulate Matter (including toxic metals)
  – Visible emissions
  – Odorous Substances

• Using Facility-Tailored Plans
  – Draft Emissions Minimization Plans
  – Include current efforts
  – Identify and assess additional measures
  – Submit for District Review and Approval
## Applicability:

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<tr>
<td>Records Only</td>
<td>≥ One ton &amp; Permitted furnaces or ovens</td>
<td>≥ 1000 tons</td>
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<tr>
<td>Plans &amp; Records</td>
<td>≥ 1000 tons or more &amp; Permitted furnaces or ovens</td>
<td>≥ 50,000 tons</td>
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**Exemption:** Clean Aluminum – records only
Draft Proposals

Main Requirements of Both Drafts

- Develop draft Emissions Minimization Plan (EMP)
- Submit EMP to District:
  - Completeness Determination
  - Release for Public Comment
  - Review and Recommendations
  - Approval
- Comply with approved EMP
- Five-year Updates
- Recordkeeping
Draft Proposals

**EMPs to Address Fugitive Emissions From:**

- **12-13: Foundries & Forges:**
  - Mold & Core Making
  - Furnace Operations
  - Casting / Cooling
  - Sand Reclamation
  - Metal Management
  - Forging
  - Shake-Out
  - Dross / Slag Mgt.

- **Review of Alternative Binders**

- **Compliance with Federal & State provisions**
Draft Proposals

**EMPs to Address Fugitive Emissions From:**

- **12-14: Metal Recycling & Shredding:**
  - Trafficked Surfaces
  - Receipt from Providers
  - Lead Batteries
  - Mercury Switches
  - Metal Management
  - Auto Shredder Residue
  - PCB Capacitors
  - Air Bag (NaN$_3$) canisters
Emissions & Reductions

**Potential Reductions & Benefits**

- Fugitive emissions reductions of PM & odors
- Acknowledge current efforts of facilities
- Assess operations for additional reductions
- Reductions vary
- Toxic metal reductions = Lower risks
- Less odor impacts and complaints
Costs

**Economic Impacts**

- **Facility Evaluation & EMP Development**
  - Identifying applicable operations
  - Determining current practices and their efficacy
  - Identifying and incorporating additional measures

- **EMP Implementation**
  - 2,000 cubic foot enclosure: $25,000
  - 50,000 dscfm baghouse: $950,000
Review Process

Site Visits
- PSC (3)
- ABI (2)
- A&B Die Casting (1)
- Schnitzer Steel (2)
- CASS (3)
- US Pipe (2)
- USS / POSCO (1)
- Sims Metals (2)

Technical Research
- District Records
- Other Regulations
- Literature Searches
- Industry Experts
- Community Organizations

Public Workshops, July 2011
Next Steps

- Submit comments by July 20
- Continued site visits / consultations
- Continued meetings and correspondence
- Revision of draft proposal
  - Final Proposal
  - Staff Report
  - Socioeconomic & CEQA analyses
- Public Hearing Fall 2012
Contact Information

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