



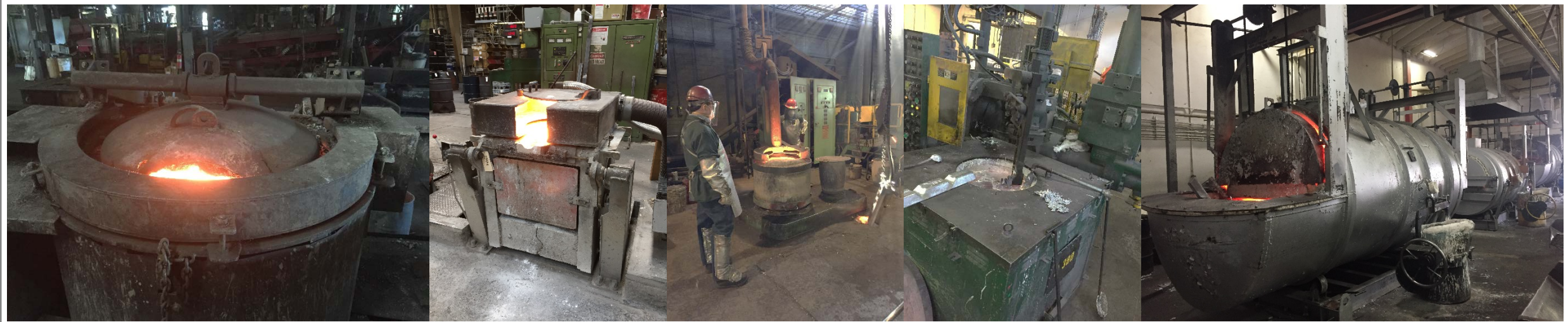
Proposed Rule 1407.1

Control of Emissions of Toxic Air Contaminants from Chromium Alloy Melting Operations

Working Group Meeting #6
July 10, 2018

Agenda

- Summary of Working Group Meeting #5
- Preliminary rule language



Summary of Working Group Meeting #5

- Summary of Working Group Meeting #4 for PAR 1407 and PR 1407.1
- General Approach
- Initial rule concepts
 - Purpose
 - Applicability and Exemptions
 - Information Gathering
 - Operational Information
 - Metals Composition Testing
 - Emissions Testing
 - Source Test Methodology
 - Source Testing
 - Reporting



Preliminary Rule Language

Overview

- Rule language based on initial rule concepts with input from stakeholders
- Provides the details necessary for implementation of rule
- Opportunities remain to revise rule language as rule development process progresses
 - Requesting further input from stakeholders where issues remain
- Presentation will highlight key provisions of preliminary rule language

Purpose

Background

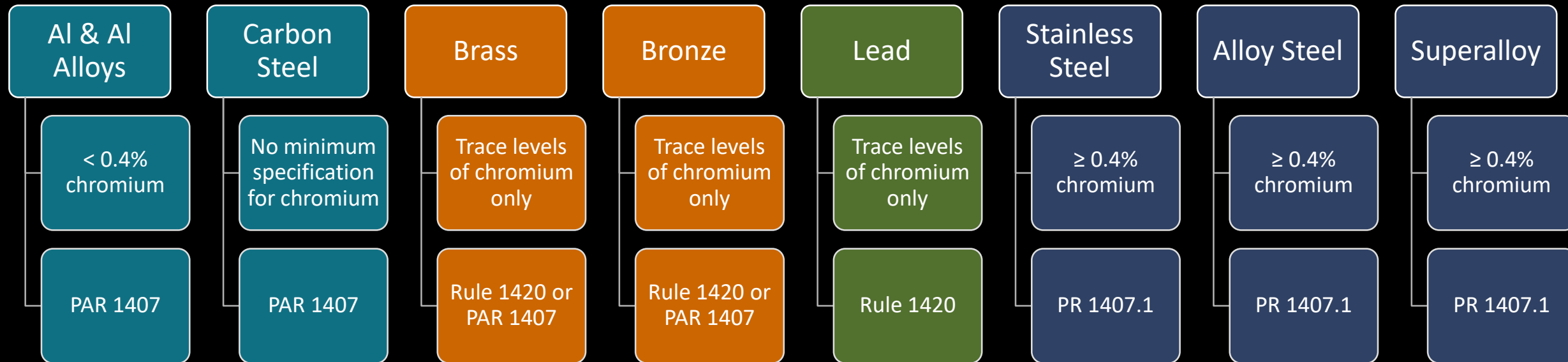
- Chromium alloys contain toxic air contaminants which have the potential to be emitted during metal melting operations
- A source test of a chromium alloy furnace has shown that some chromium is converted to hexavalent chromium
- Additional emissions data is needed to quantify the type and amount of toxic air contaminant emissions that occur from chromium alloy melting operations
- Emission data will be used to assess the need for requirements to address toxic air contaminant emissions

Purpose of Proposed Rule 1407.1

- To gather toxic air contaminant emissions information stainless steel, alloy steel, superalloy, and chromium alloy (metal contains $\geq 0.5\%$ chromium) melting operations

Applicability

Background



Applicability of Proposed Rule 1407.1

- All melting operations of stainless steel, alloy steel, superalloy, and chromium alloy (contains $\geq 0.5\%$ chromium)

Operational Information Survey Requirements

Background

- Stainless steel and alloy steel melting furnaces are not regulated by any SCAQMD source or industry specific toxic air contaminant rules
- Superalloy furnaces regulated under Rule 1407, but are exempt
- As a result:
 - A number of furnaces may not be permitted
 - Location of metal melting operations and housekeeping are not regulated
- Operational information survey will:
 - Identify types of operations and processes performed
 - Collect detailed furnace information and existing pollution controls
 - Understand current housekeeping practices

Operational Information Survey Requirements

(continued)

Proposed Rule 1407.1

- Within 3 months of rule adoption date, submit a survey with details for the following :

Casting

- Casting techniques or processes performed

Finishing

- Finishing activities or operations performed

Furnaces

- Unpermitted and permitted furnaces

Housekeeping

- Housekeeping activities routinely performed

Operational Information Survey Requirements

(continued)

Furnaces

- SCAQMD permit number, if applicable
- Furnace type
- Size and capacity
- Fuel type
 - If gas fired, BTU gas rating
- Refractory coating
- Type of refractory brick and chromium content
 - Frequency refractory brick is changed
 - Date last changed
- Average and maximum operating temperatures
- Associated Emission Collection System(s) and/or Emission Control Device(s)
- Alloy(s) melted

Housekeeping

- Schedule
 - Daily, monthly, annually
- Methods used
 - Sweeping, washing, mopping, vacuuming
- Location
 - Near metal melting areas, outside of the buildings where metal melting occurs

Metals Composition Testing Requirements

Background

- Each batch of alloy has varying content for each toxic air contaminant
- The composition of alloys may affect the emissions of these toxic air contaminants
- Collecting metals composition data will provide information on the type and amount of toxic air contaminants in alloys
- If the chromium content is consistently less than 0.5%, facility would be exempt from source testing for hexavalent chromium

Metals Composition Testing Requirements

(continued)

Proposed Rule 1407.1

- From 1/1/19 to 7/1/19, conduct metals composition testing for the following:

Raw Materials
(per batch)

Final Materials
(per melt)

Slag
(per melt)

Dross
(per melt)

Baghouse
catch
(per container)

- Submit all results by August 1, 2019

Recordkeeping and Reporting Requirements

Background

- Data regarding furnace run hours and metals melted is needed to help assess emissions of toxic air contaminants

Proposed Rule 1407.1

- From 1/1/19 to 12/31/19, keep records for the following:

Each metal melting furnace

- Quarterly records of run hours and weight of raw materials processed

Each batch of raw material

- Vendor information

Each baghouse

- Quarterly records of weight of waste collected by the baghouse catch

- Submit all records by February 1, 2020

Source Test Requirements

Background

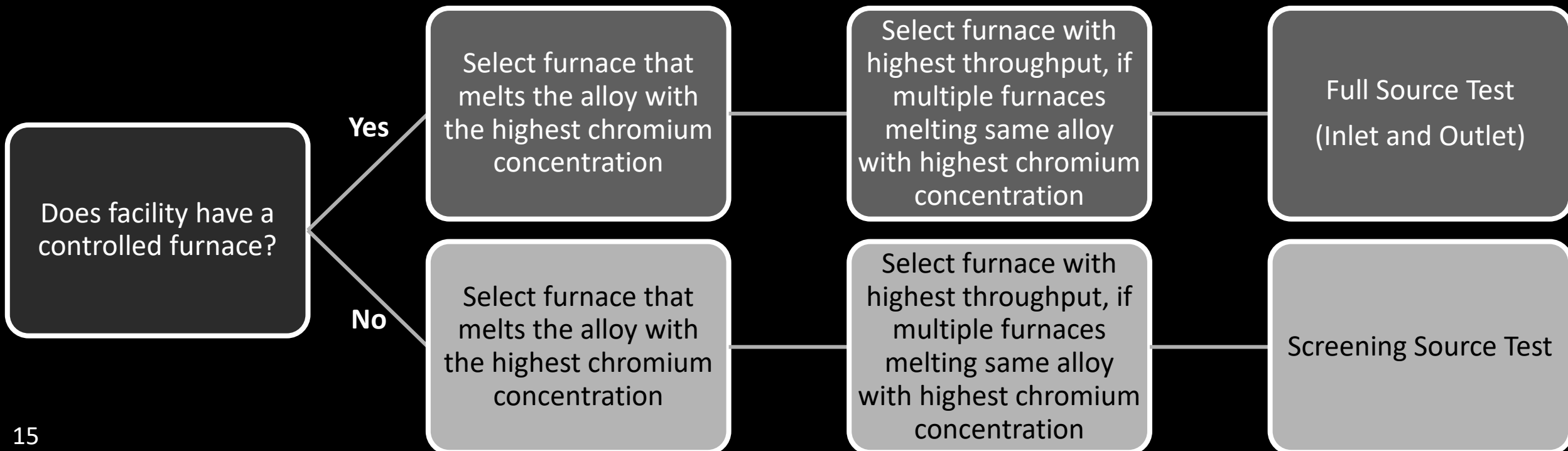
- SCAQMD currently has one hexavalent chromium source test for a ferrous metal melting furnace – hexavalent chromium was detected
- SCAQMD staff offered to conduct source tests at certain facilities as part of rule development, however, facilities were either reluctant or non-responsive
- Further testing is needed to assess toxic air contaminant emissions during chromium alloy melting operations
- Source tests will obtain emissions data to assess toxic air contaminant emissions

Source Test Requirements (continued)

Proposed Rule 1407.1

- Each facility to conduct a source test on one furnace

Selecting Furnace to Source Test



Source Test Requirements (continued)

Source Test Protocol

- Submit within 4 months of rule adoption date
- Include:
 - Source test methodology
 - Planned sampling parameters
 - Operating and process conditions
 - Equipment, logistics, personnel, and other resources

Source Test

- Conduct within 90 days of source test protocol approval
- Perform the following source tests:
 - Particulate matter
 - Multiple metals
 - Hexavalent chromium
 - Not applicable, if metals composition testing of baghouse catch indicates total chromium less than 0.5% by weight
 - Capture efficiency, for controlled furnaces

Source Test Report

- Submit source test report by February 1, 2020

Next Steps

Action	Target Dates
Next Working Group Meeting	August 2018
Stationary Source Committee	September 21, 2018
Public Workshop	August or September 2018
Set Hearing	October 5, 2018
Public Hearing	November 2, 2018

Contact Information

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General Questions

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