CHAPTER 5E:

METAL PROCESSING FACILITIES

Chapter 5e: Metal Processing Facilities

Community Concerns

During the Community Steering Committee (CSC) meetings, the co-leads helped lead discussions to identify air quality concerns and actions for the Community Emissions Reduction Plan (CERP). The South Los Angeles (SLA) CSC expressed concerns about health effects from emissions of criteria air pollutants, toxic air contaminants, and strong odors from metals facilities. The CSC is concerned with metal recyclers and metal scrap yards near sensitive receptors, such as Atlas Metals. Lead, hexavalent chromium, nickel, arsenic are metal toxic air contaminants; a toxic air contaminant is defined as an air pollutant which may cause or contribute to increase the rate of premature death or serious illness and may pose a potential risk to human health.[1]

Regulatory Background

There are approximately 69 metal processing facilities that are permitted with South Coast Air Quality Management District (South Coast AQMD) within the SLA community boundary. These metal processing facilities conduct various operations, including melting, plating, finishing, machining, and grinding. Most metal recyclers and metal scrap yards do not have equipment subject to South Coast AQMD permits but could still be subject to some South Coast AQMD rules such as Rules 403[2] and 1466.[3] These facilities may be the source of public complaints even though they do not have active permits; when such complaints are received, these locations will be investigated.

California Air Resources Board (CARB) identifies and controls toxic air contaminants from a multitude of sources, informs the public of significant toxic exposures, and provides ways to reduce risks from these exposures through its Air Toxics Program. South Coast AQMD, as well as other air agencies in California, rely on the state's Office of Environmental Health Hazard Assessment (OEHHA) to identify toxic air contaminants, their health effects, and the methodology to estimate the health risks from air toxic metal exposure. South Coast AQMD regulates toxic air contaminants from stationary sources through several rules, including but not limited to, Rules 1401,[4]

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[1] California Health and Safety Code, Section 39655

[2] South Coast AQMD, Rule 403 – Fugitive Dust, http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf

[3] South Coast AQMD, Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf

[4] South Coast AQMD, Rule 1401 – New Source Review of Toxic Air Contaminants, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf

1402,[5] 1420,[6] 1426,[7] 1430,[8] and 1469.[9] CARB has the authority to develop rules or regulations to control toxic air contaminants they identify. For example, after hexavalent chromium was identified as a toxic air contaminant,[10] CARB developed the Airborne Toxic Control Measure (ATCM) for Chromium Plating and Chromic Acid Anodizing Facilities,[11] which was adopted to reduce hexavalent chromium emissions from decorative and hard chrome plating facilities and chromic acid anodizing operations. CARB is developing an update to its Air Toxics Control Measure (ATCM), which is tentatively scheduled for approval at its Board Meeting in October 2022.

Actions to Reduce Emissions or Exposure

In the process of developing this CERP, CSC members requested a phase out of the use of hexavalent chromium and requirements to report emissions for metals facilities not subject to South Coast AQMD's Annual Emissions Reporting (AER) program[12] or Rule 1469. Community members requested buffer zones to be established near sensitive receptors, installation of enclosures and engineering controls, and outreach to the community to inform them of best management practices. Additionally, the CSC requested more information related to community-identified metals facilities and information on applicable rules, compliance history, and air monitoring data. The CSC also requested outreach efforts to local business owners and to provide information on applicable rules and regulations, South Coast AQMD's permitting process, and the South Coast AQMD Small Business Assistance program.

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[5] South Coast AQMD, Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1402.pdf

[6] South Coast AQMD, Rule 1420 – Emissions Standard for Lead, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1426.pdf

[7] South Coast AQMD, Rule 1426 – Emissions from Metal Finishing Operations, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1426.pdf

[8] South Coast AQMD, Rule 1430 – Control of Emissions from Metal Grinding Operations at Metal Forging Facilities, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1430.pdf

[9] South Coast AQMD, Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1469.pdf

[10] Hexavalent chromium was identified as an air toxic contaminant in 1987 (https://oehha.ca.gov/chemicals/chromium-hexavalent)

[11] For more information regarding CARB's current amendments to this ATCM, please visit https://ww2.arb.ca.gov/our-work/programs/air-toxics-program/chrome-plating-atcm/chrome-plating-meetings-workshops

[12] The Annual Emissions Reporting (AER) program requires facilities to report their emissions if they emit at least four tons of either sulfur oxides (Sox), volatile organic compounds (VOCs), nitrogen oxides (NOx), particulate matter (PM), or emissions of 100 tons per year or more of carbon monoxide (CO) (https://www.aqmd.gov/home/rules-compliance/compliance/annual-emission-reporting). Facilities subject to the AB 2588 Toxic Hot Spots Program also report more detailed toxics emissions inventories every four years (http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588). CARB's new CTR regulation will require many additional metals facilities to begin reporting emissions to South Coast AQMD's AER program, phasing in from 2023 through 2029 (https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting)

The CSC requested the following goals for metal processing facilities in SLA.

A. Inform the CSC of CARB's Criteria Pollutant and Toxics Emissions Reporting (CTR) process and CARB's Chrome Plating ATCM amendment adoption.

B. Identify permitted metal processing facilities and inform the community of applicable rules and regulations, compliance history, and available data as they relate to metal processing facilities in the community.

C. Identify emissions and exposure reduction measures and strategies for metal processing facilities.

D. Conduct air measurements surveys to identify facilities with potential elevated emissions and to characterize these emissions.

E. Inform the CSC of metals emissions data, criteria pollutants, and toxic air contaminants that may be found in the community (e.g., hexavalent chromium, lead, zinc, nitrogen oxides).

F. Inform metal processing facilities of best practices and applicable rules and regulations, and provide information on South Coast AQMD's Small Business Assistance program.[13]

G. Reduce fugitive metal emissions from metal recycling facilities.

The CSC developed the following CERP actions to address community concerns regarding the seven CERP goals. **Table 5e-1** below summarizes goals, actions, metrics, and provides a timeline to achieve emissions or exposure reductions from metal processing facilities in SLA.

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[13] South Coast AQMD, Small Business Assistance, http://www.aqmd.gov/home/programs/business/business-detail?title=small-business-assistance

Table 5e-1: Actions to Reduce Emissions from and Exposure to Metal Processing Facilities

Goals:	Actions	Responsible Entity(ies)	Metrics	Timeline	
				Start	Complete
A: CARB Regulations	• Conduct a community workshop on the Criteria Pollutant and Toxics Emissions Reporting (CTR) process and share the data that has been collected from facilities in the community • Provide information regarding CARB Chrome Plating ATCM amendments	CARB South Coast AQMD	• Delivery of CTR Workshop • Number of updates to the CSC on ATCM amendments	2023	2024
B: Identify Metals Facilities	• Identify all permitted metals facilities within the SLA community boundary • Provide a list of South Coast AQMD rules applicable to the metals facilities identified • Provide three (3) year compliance history of the facilities identified • Summarize available emissions and air monitoring data collected at or near facilities	South Coast AQMD	• Provide list of permitted metals facilities • Provide applicable rules list for identified facilities • Provide compliance history for identified facilities • Provide emissions and air monitoring data, if available, for identified facilities	2023	2023
C: Identify Strategies	• Identify and prioritize air quality concerns related to sources of metal emissions • Identify potential strategies and approaches to address the concerns at prioritized locations	South Coast AQMD	• Provide list of prioritized concerns related to sources of metal emissions • Provide strategies list, if applicable	2023	2nd quarter, 2027

D: Air Measurement Survey	Conduct initial air measurement surveys near facilities of concern to identify and characterize any potential emissions	South Coast AQMD	• Conduct air measurements survey • Provide updates to the CSC	2nd quarter, 2022	2nd quarter, 2027
E: Emissions Data	Provide informational handout or presentation and an overview on criteria pollutants and toxics that may be found in the community (e.g., hexavalent chromium, lead, zinc, nitrogen oxides)	South Coast AQMD	Number of handouts distributed and/or delivery of presentation	2023	2025
F: Outreach to Owners and Operators	Conduct targeted outreach to metals facility owners and operators in the community, including providing information on best practices, South Coast AQMD's Small Business Assistance Program, permitting process, and applicable rules and regulations – with a focus on new rule requirements from CARB and South Coast AQMD	South Coast AQMD CARB	Number of outreach events or materials distributed to metals facilities	2023	2025
G: Metal Recycling Facilities	Initiate rule development process to address housekeeping and best management practices at metal recycling facilities	South Coast AQMD	Number of updates to the CSC on rule development efforts	2023	2026