



CALIFORNIA METALS COALITION

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September 21, 2021

Mike Morris, Planning and Rules Manager
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765

Dear Mr. Morris:

The California Metals Coalition appreciates the opportunity to comment on the South Coast Air Quality Management District (“District” or “SCAQMD”) working group proceedings and consideration of SCAQMD Proposed Rule (PR) 1147.2.

SUMMARY

This comment letter addresses the PR 1147.2 preliminary draft rule language released on September 9, 2021. It may also reference the Working Group Meeting #9 slides from September 2, 2021.

BACKGROUND ON CMC

California is home to approximately 4,000 metalworking facilities, employing over 350,000 Californians.

8 out of 10 employees in the metalworking sector are considered ethnic minorities or reside in disadvantaged communities throughout Southern California. A job in the metals sector is often the only path to the middle class for many of these Californians.

California metal manufacturers use recycled metal (ex: aluminum, brass, iron and steel) to make parts for the aerospace industry, clean energy technologies, electric cars, biotech apparatuses, medical devices, national defense items, agriculture, infrastructure, construction machinery, household appliances, food processing and storage, movement of water, and millions of other products demanded by society.

Here is a breakdown of the metalworking industry’s impact on the 4 counties within SCAQMD jurisdiction:

- Los Angeles County: 54,290 Direct Jobs | 52,741 Indirect Jobs | \$7 billion wages | \$26 billion economic activity

- Orange County: 25,448 Direct Jobs | 18,912 Indirect Jobs | \$2.9 billion wages | \$10.8 billion economic activity
- San Bernardino: 9,778 Direct Jobs | 8,378 Indirect Jobs | \$1.2 billion wages | \$4.5 billion economic activity
- Riverside: 6,971 Direct Jobs | 7,712 Indirect Jobs | \$957 million wages | \$3.2 billion economic activities
- **Total:** 96,487 Direct Jobs | 87,743 Indirect Jobs | \$12 billion wages | \$33.8 billion economic activity

COMMENTS ON PRELIMINARY DRAFT LANGUAGE

Item #1: Section (d)(3) reads: *An owner or operator or a unit shall submit a permit application to include a permit condition that meets the NOx limits in Table 1, except during periods of startup and shutdown, by the compliance date in Table 3.*

There will be some cases where a facility already has a permit limit in their current permit that meets the NOx limits in Table 1. CMC suggests adding language to state that the permit application is only required if a Table 1 permit limit is not already stated on the existing permit.

Item #2: Section (d) Table 1 (abbreviated below), proposed limits for new units:

Metal Heat Treating, Metal Heating, and Metal Forging (New Units)	≤ 1,200 °F	30 ppm
	> 1,200 °F	40 ppm
Metal Heat Treating, Metal Heating, and Metal Forging with Radiant-Tube Burners (New Units)	All temperatures	40 ppm

Since May 2019, CMC has spent a significant amount of time with individual metal companies, consultants, and vendors to discuss the numerous aspects of equipment retrofits for impacted equipment. This has resulted in an in-depth review and analysis of the current industry retrofit capabilities and limitations as it relates to 1147.2's proposed BARCT limits.

On September 2, 2021, the concept of establishing new limits for new installations was introduced for the first time. Working group attendees did not receive any data, analysis, vendor quotes or facility input that would demonstrate the proposed new limits would work for all of the impacted applications and temperatures.

Currently, SCAQMD's *Best Available Control Technology (BACT) Guidelines for Metal Heating Furnaces* (metal aging, annealing, forging, heat treating, and homogenizing) for low NOx burners is 50 ppm, 3% O₂, dry (October 20, 2000). This was set after a full data review, significant analysis, and multiple working group meetings.

It is a major leap to set a new limit for new installations in PR 1147.2 below the current BACT limit of 50ppm given the lack of information, data, analysis, discussion, diversity in applications, and individualized needs of new equipment installations.

Given the extremely short time frame of only nineteen days, CMC has not been able to properly review the diverse universe of new equipment installations for metal heat treating, metal heating, metal forging, and radiant tube burners.

CMC strongly suggests not including a rushed change and removing the new installation limits proposed by staff in Table 1.

Item #3: Section (d)(5) reads *An owner or operator of a unit meeting the requirements in (d)(3) shall not operate a unit unless the unit meets a CO limit of 800 ppm, corrected to 3% oxygen, dry, and shall demonstrate compliance concurrently with any NOx compliance demonstration.*

In terms of a CO limit, CMC appreciates the draft language's proposal of 800 ppm. This limit will capture a majority of the units impacted by PR 1147.2.

CMC suggests making the CO limit 1,000 ppm in order to capture all of the equipment impacted by PR 1147.2.

As an example, there will be ovens that use reversing circulating fans. During the recirculation, the burners go to low fire and the fans stop, reverse, and the burners go back to high fire. During this cycle, as the furnace stabilizes, the CO value can exceed 800 ppm for CO.

As a second example, there will be metal melting furnaces with regen burners—which limit the total amount of emissions due to their efficiency benefits over cold air burners. However, the source test protocol is a very long test, typically four hours. As part of the cycle, the door is opened and closed. The burners go to low fire when the door opens, and when the door closes, the CO values can go above 800 ppm for CO until the furnace stabilizes.

After additional review by CMC, we believe a revised CO limit of 1,000 ppm is a better solution for all units impacted by PR 1147.2.

Item #4: Section (d), Table 6 reads *Staff is evaluating additional details regarding the multiple unit implementation schedule.*

On July 8, 2021, working group attendees were presented a table which included a multiple unit implementation schedule (Slide #32). As discussed on July 8th, metal facilities with multiple units will be facing a significant investment. Establishing a schedule that allows for this investment to be spread out over time is critical to the viability of these operations. Please share any updated draft table(s) as soon as it becomes available.

Item #5: Sections (e)(1)(A) Table 6 reads:

Table 6 – Less than 1 Pound per Day Monthly Operating Limits*

Unit Rated Heat Input (Btu/hr)	Monthly Hour Limit
≥ 325,000 to < 500,000	480
≥ 500,000 to < 1,000,000	240
≥ 1,000,000 to < 1,500,000	160
≥ 1,500,000 to < 2,000,000	120

* Table 6 is based on an emission factor of 130 lbs/MMScf and 100% rated heat input over 30 days

Based on discussions at the September 2nd working group meeting, Table 6 is based on a generalized 102 ppm NO_x output limit. This is a very high ppm limit that will rarely be encountered.

CMC suggests that if a facility conducts a source test on the unit, and verifies the unit's actual NO_x emissions, then the verified ppm value can be used when calculating the 1 lb/day limit for units under 2,000,000 btu—rather than the default value of 102ppm NO_x.

Section (e)(1)(A) would need to include “or” when referencing the calculations in (e)(1)(b) if a unit's actual NO_x emissions are verified by a source test.

Item #6: Section (f)(2) Determination of Burner Age is an important section. CMC suggests adding (f)(2)(E) to read: “Purchase records submitted to a tax accounting service to determine the equipment's depreciation value.”

For tax purposes, facilities keep accounting records of equipment to calculate the annual depreciation value. This information includes the purchase year of the equipment and is submitted to their tax accounting service (ex: CPA) for tax annual filings or property tax audits. The addition of (f)(2)(E) can be used to determine the burner age.

Item #7: Section (h)(3) reads *Staff is evaluating additional details concerning when in a unit's process a source test shall be conducted.*

The September 2, 2021 working group meeting #9 included a statement on slide 35 that read *Source test shall be conducted at maximum temperature at which the unit normally operates.*

Conducting PR 1147.2 source tests at maximum temperature would be a disaster for the rule and negate nearly all options for equipment compliance.

As an example, there will be equipment that operates anywhere between 800F-2250F. But the normal operating temperature is 1750F. If this equipment's source test was required to be conducted at 2250F—which is the “maximum temperature”—results would be expectedly higher than normal operating conditions.

Of additional concern, the historical source test data used to establish PR 1147.2 BARCT limits do not support using a maximum temperature. Source tests conducted by metal facilities impacted by PR 1147.2 had test protocols approved by the SCAQMD, and the protocols did not use the

maximum temperature to confirm the equipment's ppm output. The ppm output would be expectedly higher than the current data set and likely lead to a higher BARCT limit.

Lastly, vendor equipment installers and burner manufacturers have not provided product guarantees for source tests conducted at the maximum output. This scenario may significantly change the performance of the equipment/burners and lead to higher ppm outputs.

CMC suggests including language in PR 1147.2 that properly reflects current—and historical—source test activities. One option is to have the source test protocol submitted to the SCAQMD for approval. Other options may be available but need to be acceptable to real-world operating conditions.

Item #8: Section (h)(3) should include a new section (D) that includes the use of EPA Method 19 "F" since many of the forge and heat treat furnaces have furnace pressure control dampers that preclude the installation of test ports.

Item #9: Section (h)(5)(A) reads *An owner or operator of a unit shall conduct a source test: (A) After at least 40 operating hours, or at least 7 consecutive days, after any unit tuning, whichever is longer;*

Unit tuning is important to properly running PR 1147.2 equipment, as well as achieving product output and uniformity requirements.

When considering the potential BARCT limits for PR 1147.2, it is important to recognize that burner manufacturers performance standards are extremely close to the proposed BARCT limits. Unit tuning is a factor in achieving a manufacturer's performance standards.

CMC cannot accept the proposed language that restricts any unit tuning for 40 operating hours, or at least 7 consecutive days, before a source test. There are numerous conditions that will impact the quality of unit tuning, and these conditions are often time sensitive.

Weather/atmospheric conditions will impact the unit tuning. If PR 1147.2 forces the facility to wait at least 7 days, these conditions can change—and sometimes change significantly.

CMC suggests that the language in (h)(5)(A) be revised. The revision would remove the "40 operating hours, or at least 7 consecutive days" time constraint, and state that once testing begins, no additional tuning can occur. In addition, after the testing is complete, no changes can be made to the device burner settings.

Item #10: Section (h)(5)(B) reads *By the end of 7 consecutive days, or 15 cumulative days, of resumed operation for a unit that is not in operation on the date the source test is due.*

CMC suggests changing "15 cumulative days" to "30 cumulative days." This extra time is to accommodate scheduling challenges, as well as anticipated delays due to the increased volume of source testing in the Basin.

Item #11: General Comment regarding the cumulative economic impact of numerous SCAQMD metals rules.

Over a very short time span, 12 SCAQMD rules will cost this small sector of metal facilities over \$200 million. This comes during a time when many markets, especially aerospace, is significantly down. This comes at a time when middle class jobs in distressed communities are vanishing. This comes at a time when raw materials are becoming less available and leading to price spikes. All sectors of the metals industry operate within a single supply chain—meaning that when one sector sees a price increase, all sectors are impacted. Cumulatively, the impact of Proposed Rule 1147.2 will only add to this economic impact.

The metals sector has recently seen the following rules passed:

- 1407: Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Ferrous Metal Melting Operations
- 1407.1: Emissions of Toxic Air Contaminants from Chromium Alloy Melting Operations
- 1420: Emission Standards for Lead
- 1420.1: Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid Battery Recycling Facilities
- 1420.2: Emission Standards for Lead from Metal Melting Facilities
- 1426: Emissions from Metal Finishing Operations
- 1430: Control of Emissions from Metal Grinding Operations at Metal Forging Facilities
- 1469: Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations
- 1480: Ambient Monitoring and Sampling of Metal Toxic Air Contaminants

The metals sector anticipates at least the following rules to be considered:

- 1435: Control of Toxic Emissions from Metal Heat Treating Processes
- 1460: Recycling Facilities and Metal Shredding Operations

CMC requests that SCAQMD provide an economic analysis regarding the cumulative cost impact of recent metals industry rulemaking. Several of the rules have been implemented and we know the actual cost impacts—not the anticipated costs. The millions of dollars anticipated through PR 1147.2 should be included.

CONCLUSION

Thank you for your time, and for allowing CMC to participate and comment on PR 1147.2. We look forward to continued discussions.

Sincerely,



James Simonelli
Executive Director

CC: Susan Nakamura, SCAQMD
James McCreary, SCAQMD
Rodolfo Chacon, SCAQMD