SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

STATEMENT OF REASONS

Proposed Rule 468 – Surface Coating of Plastic Parts and Products

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RULE JUSTIFICATION

Health Impacts

Ground level ozone is a secondary pollutant formed from photochemical reactions of nitrogen oxides (NOx) and volatile organic compounds (VOC) in the presence of sunlight. Ozone is a strong irritant that adversely affects human health and damages crops and other environmental resources. As documented by the U.S. Environmental Protection Agency (EPA) in the most recent science assessment for ozone[1], both short-term and long-term exposure to ozone can irritate and damage the human respiratory system, resulting in:

- reproductive and developmental effects, such as low birth weight from long-term exposure to ozone;
- decreased lung function;
- development and aggravation of asthma;
- increased risk of cardiovascular problems such as heart attacks and strokes;
- central nervous system affects, such as memory and sleep patterns;
- increased hospitalizations and emergency room visits; and
- premature deaths.

Background

The District is currently designated as a nonattainment area for both the state and federal ozone standards. Since VOCs are a precursor to ozone, one of the strategies to control ozone pollution is to reduce VOC emissions from existing stationary sources. The estimated emissions inventory for the surface coating of plastic parts and associated solvent cleaning operations is 3.2 tons per year[2]. This emission category includes the surface coating of miscellaneous plastic parts and products, business machine and transportation plastic parts, and pleasure craft.

Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings

In 2008, EPA promulgated a Control Techniques Guidelines (CTG) document for Miscellaneous Metal and Plastic Parts Coatings[3]. The CTG contains Reasonably Available Control Technology (RACT) guidelines and recommendations, including VOC content limits, specific exemptions, and recommended work practice procedures, for coatings applied in six different types of operations: miscellaneous metal parts and products, miscellaneous plastic parts and products, transportation plastic parts, business machine plastic parts, pleasure craft, and motor vehicle materials. The CTG applies to any facility with actual VOC emissions of 2.7 tons or more per 12-month rolling period from these coating operations, including related cleaning operations.

Section 182(b)(2) of the federal Clean Air Act (CAA) requires the District to implement RACT for all of the coating operations included in the CTG. Staff's strategy to satisfy the RACT requirement consists of four parts:

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[1] U.S. Environmental Protection Agency. *2013 Final Report: Integrated Science Assessment for Ozone and Related Photochemical Oxidants*. Washington DC: February 2013, Table 2-1.

[2] Sacramento Metropolitan Air Quality Management District. *SMAQMD 2015 Area Source Methodology for Plastic Parts & Products Coatings.* Sacramento, CA: December 15, 2016.

[3] U.S. Environmental Protection Agency. *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings*, EPA-453/R-08-003. Washington DC: September 2008.

- RACT requirements for miscellaneous metal parts and products have been incorporated into Rule 451 – Surface Coating of Miscellaneous Metal Parts and Products. The District adopted these amendments to Rule 451 on October 28, 2010.

- RACT requirements for motor vehicle materials have been incorporated into Rule 459 – Automotive, Mobile Equipment, and Associated Parts and Components Coating Operations. The District adopted these amendments to Rule 459 on August 25, 2011.

- Proposed Rule 468 – Surface Coating of Plastic Parts and Products will satisfy RACT requirements for the coating of miscellaneous plastic parts and products, transportation plastic parts, and business machine plastic parts. This new rule is the subject of this Statement of Reasons.

- A negative declaration stating the District does not have any pleasure craft surface coating operations with actual VOC emission great enough to be subject to the CTG will be submitted to EPA to satisfy the RACT requirements for pleasure craft coating operations.

Legal Mandates

Federal Mandates: The District is designated as a severe nonattainment area for the 2008 federal 8-hour ozone standard. CAA Section 172(c)(1) specifies that State Implementation Plans (SIPs) for nonattainment areas must include "reasonably available control measures" (RACM), including "reasonably available control technology" (RACT), for sources of emissions. Section 182(b)(2)(A) of the CAA provides that for nonattainment areas classified as "moderate" or worse, states must revise their SIPs to include RACT for sources of VOC emissions for each category of VOC sources covered by a CTG document issued after November 15, 1990, and prior to the area's date of attainment. EPA defines RACT as "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility"[4]. Pursuant to CAA Sections 108(b) and (c), EPA publishes information regarding available controls. In developing Control Techniques Guidelines, EPA evaluates, among other things, the sources of VOC emissions and the available control approaches for addressing these emissions, including the costs of such approaches. CTG documents establish the presumptive minimum recommendations for RACT.

On March 23, 2017, the District's Board of Directors approved a plan document, known as a "RACT SIP[5]," that was subsequently submitted to EPA as a revision to the SIP. The RACT SIP is required to demonstrate that the District's rules implement RACT emission standards as they relate to the 2008 ozone air quality standard. The lack of a District rule implementing RACT standards for the plastic surface coating operations included in the CTG was identified as a RACT deficiency. To remedy this deficiency, the District committed to adopt a rule that meets the RACT requirements for the coating of miscellaneous plastic parts, transportation and business machine plastic parts, and pleasure craft.

A Staff review of sources in the District showed that there are no pleasure craft coating operations with VOC emissions great enough for the CTG to apply. The District will submit a negative declaration to EPA to satisfy the RACT requirement for the pleasure craft portion of the CTG.

[4] 44 FR 53761, September 17, 1979.
[5] Sacramento Metropolitan Air Quality Management District. *Demonstration of Reasonably Available Control Technology for the 2008 Ozone NAAQS (RACT SIP)*. Sacramento, CA: January 23, 2017.

Proposed Rule 468 will satisfy the RACT requirements for the other types of plastic coating operations covered by the CTG.

State Mandates: The District is designated "serious" nonattainment for the state ozone standard. The California Clean Air Act requires areas with this designation to adopt certain control measures, including:

- California Health and Safety Code (CHSC) Section 40919 requires districts designated serious nonattainment for ozone to adopt Best Available Retrofit Control Technology (BARCT) for all existing permitted sources. BARCT means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of sources[6].
- CHSC Section 40914 requires a district to adopt "all feasible measures" if it is unable to achieve at least a 5% annual reduction in district wide emissions.
- Transport Mitigation Emission Control Requirements: Title 17, Section 70600 of the California Code of Regulations requires districts within the areas of origin of transported air pollutants, as identified in Section 70500(c), to include sufficient emission control measures (including all feasible measures and BARCT) in their attainment plans for ozone to mitigate the impact of pollution sources within their jurisdictions on ozone concentrations in downwind areas commensurate with the level of contribution. An upwind district must comply with the transport mitigation planning and implementation requirements set forth in this section regardless of its attainment status, unless the upwind district complies with the requirements of Section 70601[7].

The purpose of proposed Rule 468 is to satisfy the federal RACT requirements as discussed previously in the Federal Mandates. San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) has also taken this approach, and has adopted only the RACT VOC limits consistent with the CTG. In 2009, SJVUAPCD amended its Rule 4603 – Surface Coating of Metal Parts and Products to add the CTG-recommended requirements, including the small source exemption thresholds and other exemptions, VOC coating limits, and definitions for the surface coating of plastic parts and products and pleasure craft[8].

Staff will continue to evaluate BARCT and all feasible measures requirements for each type of plastic coating operation, including the technological and economic feasibility of applying emission standards to small sources (any facility emitting less than 2.7 tons per 12-month rolling period). A total of approximately 1.1 tons of VOC per year are emitted from small sources[9]. Considering the small emission reduction potential from these sources, Staff is proposing only to satisfy the federal RACT requirements.

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[6] CHSC Section 40406.

[7] The district must prepare a transport mitigation plan that shows the emissions from the source do not contribute to ozone violations in any downwind area, emission reductions from the sources are not needed to attain ozone standard in any downwind area, the district is implementing an alternative emissions reduction strategy, or the most recent transport assessment shows that the transport impact is inconsequential.

[8] Subsequently, SJVUAPCD's rule was renamed to Surface Coating of Metal Parts and Products, Plastic Parts and Products, and Pleasure Crafts.

[9] Sacramento Metropolitan Air Quality Management District. *SMAQMD 2015 Area Source Methodology for Plastic Parts & Products Coatings.* Sacramento, CA: December 15, 2016.

SUMMARY OF PROPOSED RULE

Staff is proposing new Rule 468 to reduce emissions of VOC from surface coating of miscellaneous plastic parts and products, business machine plastic parts, and transportation plastic parts. The following summarizes the requirements of proposed Rule 468. For a detailed description of the proposed rule, see Appendix A.

Purpose and Applicability

The purpose of proposed Rule 468 is to limit emissions of VOC from coatings and associated cleaning materials used in the coating of miscellaneous plastic parts and products, business machine plastic parts, and transportation plastic parts. This rule applies to any person who uses, applies, or solicits the use or application of such coatings or cleaning materials. In addition, specific sections of this rule pertaining to material data sheets and VOC content determination apply to any person who supplies, sells, offers for sale, manufactures, or distributes any coating or cleaning material for miscellaneous plastic parts and products, business machine plastic parts, and transportation plastic parts.

Rule Effective Date

Staff is proposing that the new rule be effective immediately upon rule adoption.

Exemptions

The following exemptions are proposed for new Rule 468:

- Exempt coating operations that are subject to other District coating rules. These rules contain requirements that are at least as stringent as the CTG. This exemption is similar to the exemptions in other District rules to avoid duplicate requirements for operations that would otherwise be subject to more than one District rule.
- Exempt small sources from the VOC coatings limits. A small source is a source where the total actual uncontrolled emissions are less than 2.7 tons of VOC per 12-month rolling period from all of the following coatings and associated cleaning activities:
  - Coating operations subject to proposed Rule 468;
  - Coating operations subject to Rule 451 – Surface Coating of Miscellaneous Metal Parts and Products;
  - Application of truck bed liner coatings, underbody coatings, and motor vehicle materials (gasket/gasket sealing material, cavity wax, deadener, and lubricating wax/compound) subject to Rule 459 – Automotive, Mobile Equipment, and Associated Parts and Components Coating Operations. Other coatings and associated cleaning activities subject to Rule 459 are not included in this small source exemption; and
  - Pleasure craft surface coating operations.

  The small source exemption was constructed to include all of the coatings and materials covered by the CTG, and the emissions threshold is consistent with the CTG. If actual emissions from a stationary source equal or exceed the exemption threshold at any time after the date of rule adoption, the source must comply immediately with the VOC coating limits, and the source will no longer qualify for this exemption in the future.

- Exempt coatings from the requirements of this rule if the coatings are dispensed from aerosol containers having a capacity of one liter or less. This exemption is consistent with the CTG and Rule 451.
- Exempt airbrush operations on miscellaneous plastic parts and products from the application equipment requirements, provided that the coating usage for airbrushing is 5 gallons or less per calendar year. This exemption is consistent with the CTG.
- Exempt the use of coatings that exceed the VOC limits in the rule in a total volume of 55 gallons or less per 12-month rolling period. The recordkeeping requirements still apply to these coatings. This exemption is consistent with EPA guidance on RACT coating rules.
- Exempt from the VOC limits the following types of coatings on miscellaneous plastic parts and products, consistent with the CTG:
  - Touch-up and repair coatings;
  - Stencil coatings applied on clear or transparent substrates;
  - Clear or translucent coatings;
  - Coatings applied at a paint manufacturing facility while conducting performance tests on coatings;
  - Reflective coatings used on highway cones;
  - Mask coatings that are less than 0.5 millimeter thick (dried) and the area coated is less than 25 square inches;
  - Electro-magnetic interference/radio frequency interference shielding coatings; and
  - Heparin-benzalkonium chloride-containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed 100 gallons per calendar year, per stationary source.
- Exempt from the VOC limits the following types of coatings on transportation and business machines plastic parts, consistent with the CTG:
  - Texture coatings applied on transportation plastic parts;
  - Vacuum metalizing coatings;
  - Gloss reducers;
  - Adhesion primers;
  - Electrostatic preparation coatings;
  - Resist coatings; and
  - Stencil coatings.
- Exempt automobile and light duty-truck coating operations during manufacture on an assembly line, which are covered by a different Control Techniques Guidelines document[10]. Currently, there are no sources in Sacramento County to which this Control Techniques Guidelines document applies. This exemption is needed to eliminate duplicate requirements should such a source locate here.
- Exempt pleasure craft coating operations. Although the CTG includes the surface coating of pleasure craft, Staff has determined that there is no pleasure craft coating facility in Sacramento County with emissions great enough to be subject to the CTG. The District will submit a negative declaration to EPA to satisfy the RACT requirement for this type of coating operation.

[10] U.S. Environmental Protection Agency. *Control Techniques Guidelines for Automotive and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-003. Washington, DC: September 2008.

Emission Limits

The proposed VOC content limits for coatings applied to miscellaneous plastic parts and products, transportation plastic parts, and business machine plastic parts are consistent with the limits recommended in the CTG. The following tables summarize the proposed VOC content limits for coatings used in each type of coating operation.

Table 1: Proposed VOC content limits for coatings applied to miscellaneous plastic parts and products

COATING CATEGORY	VOC CONTENT: g/l (lb/gal) as applied, less water and exempt compounds
General Multi-Component Coatings	420 (3.5)
Electric Dissipating Coatings and Shock-Free Coatings	800 (6.7)
Extreme Performance Coatings: One-Component[1] Two-Component	 280 (2.3) 420 (3.5)
Metallic Coatings	420 (3.5)
Military Specification Coatings: One-Component Two-Component	 340 (2.8) 420 (3.5)
Mold Seal Coatings	760 (6.3)
Multi-Colored Coatings	680 (5.7)
Optical Coatings	800 (6.7)
Vacuum-Metalizing Coatings	800 (6.7)
All Other Coatings[2]	280 (2.3)

[1] This category has been included for clarity. The CTG does not have a coating category for "Extreme Performance Coatings: One-Component." The applicable CTG category is "General One Component," with a VOC limit of 280 g/l.

[2] The CTG lists this category as "General One Component." This coating category was changed to "All Other Coatings" to clarify that this limit applies to any coating that does fall into a category listed above.

Table 2: Proposed VOC content limits for coatings applied to transportation plastic parts

	VOC CONTENT: g/l (lb/gal) as applied, less water and exempt compounds	
COATING CATEGORY	**AIR-DRIED**	**BAKED**
Exterior Parts		
Flexible Primer	580 (4.8)	540 (4.5)
Non-flexible Primer	580 (4.8)	420 (3.5)
Base Coat	600 (5.0)	520 (4.3)
Clear Coatings	540 (4.5)	480 (4.0)
Touch-up and Repair Coatings	620 (5.2)	620 (5.2)
All Other Coatings[1]	600 (5.0)	520 (4.3)
Interior Parts		
Flexible Primer	600 (5.0)	540 (4.5)
Non-flexible Primer	600 (5.0)	420 (3.5)
Base Coat	600 (5.0)	520 (4.3)
Clear Coatings	600 (5.0)	480 (4.0)
Touch-up and Repair Coatings	620 (5.2)	620 (5.2)
All Other Coatings[1]	600 (5.0)	520 (4.3)

[1] The CTG lists this category as "Non-basecoat/clear coat." This coating category was changed to "All Other Coatings" to clarify that this limit applies to any coating that does fall into a category listed above.

Table 3: Proposed VOC content limits for coatings applied to business machine plastic parts

COATING CATEGORY	VOC CONTENT: g/l (lb/gal) as applied, less water and exempt compounds
Primer or Topcoat	350 (2.9)
Texture Coating	350 (2.9)
Fog Coat	260 (2.2)
Touchup and Repair Coating	350 (2.9)
All Other Coatings[1]	350 (2.9)

[1]"All Other Coatings" category is not a category in the CTG. It was added to clarify that any coating not otherwise listed should be subject to the limit for a general topcoat.

As an alternative to meeting the proposed VOC content requirements discussed above, a person may use air pollution control equipment that provides no less than 90% overall system (combined collection and control) efficiency to reduce VOC emissions from the coating operation. This alternative control method is consistent with the CTG.

Cleaning and Storage Requirements

Cleaning materials for the coating operations included in proposed Rule 468 are already subject to the requirements in Rule 466 – Solvent Cleaning. In general, Rule 466 requires that cleaning solvents used for surface preparation or the cleaning of parts, products, tools, machinery, equipment and general work areas not exceed 25 grams of VOC per liter. Rule 466 allows higher VOC limits for some specialized solvent cleaning activities. Rule 466 does not establish a VOC limit for the cleaning materials used to clean application equipment in this type of surface coating operation.

In addition to the requirements in Rule 466, proposed Rule 468 requires an operator to follow specific work practice procedures that are recommended by the CTG for both coating and cleaning materials. Closed containers must be used to store used cloths, papers or sponges; VOC-containing materials must be transferred and/or disposed in a manner that prevents VOC emissions into the atmosphere; spillage must be minimized; cleaning materials must not be atomized; and all spent solvent must be captured in closed containers.

Administrative and Recordkeeping Requirements

The proposed administrative and recordkeeping requirements are necessary to ensure compliance with this rule. These requirements are described below:

- Any person who sells materials subject to this rule is required to provide product information on material data sheets available to the purchaser at the time of sale. Product information includes the material type by name/code/manufacturer, the maximum VOC content, and recommendations regarding thinning, reducing, or mixing with any VOC containing material.
- For an air pollution control device, the operator is required to submit an operation and maintenance plan to the Air Pollution Control Officer for approval. The operation and maintenance plan must include procedures to demonstrate continuous operation of the emission control device during periods of emission-producing operations and specify which records must be kept to document the operation and maintenance procedures.
- Any person who is subject to this rule must keep records of operation, including the list of materials currently used at the facility, the product information for all materials currently used, and daily and monthly usage records. The records must be maintained on site for five years.

The requirements in these sections are consistent with the requirements in Rule 451.

EMISSIONS IMPACT

The estimated VOC emissions from plastic parts and products coating operations are 3.2 tons per year. A survey conducted as part of the area source methodology for this category identified nine stationary sources that coat miscellaneous plastic parts or products, business machine plastic parts, transportation plastic parts, or pleasure craft. A review of the facilities indicated that only one facility has actual VOC emissions greater than 2.7 tons per 12-month rolling period and will be subject to the proposed VOC limits. That facility manufactures transportation equipment; however, its operation will not be impacted because according to the survey, the facility uses coatings for transportation plastic parts that already comply with the proposed limits. No additional emission reductions from the surface coating operation are expected.

In addition, no emission reductions are expected from the cleaning operations. The cleaning solvents used for surface preparation or the cleaning of parts, products, tools, machinery, equipment and general work areas are already subject to the requirements in Rule 466 – Solvent Cleaning, which in general, requires cleaning solvents and surface preparation materials to contain no more than 25 grams per liter of VOC. However, Rule 466 does not contain requirements for cleaning application equipment (except for architectural coatings), and to maintain consistency with Rule 466, no VOC limit is proposed for application equipment cleaning

materials in Rule 468. Consistent with the CTG, Rule 468 contains work practice requirements for application equipment cleaning, but these practices are already widely used and no emission reductions are expected.

ECONOMIC IMPACT

Cost Impact

Section 40703 of the CHSC requires that the District consider and make public its findings relating to the cost effectiveness of implementing an emission control measure. The one source affected by this proposed rule is already in compliance with the proposed VOC limits. As a result, no additional compliance cost will be incurred.

Incremental Cost Effectiveness

Pursuant to Health and Safety Code Section 40920.6(a)(3), the District is required to perform an incremental cost effectiveness analysis prior to adopting requirements for Best Available Retrofit Control Technology (BARCT) or a "feasible measure" requirement pursuant to CHSC Section 40914. The District is required to identify one or more potential control options that achieve the emission reduction objective for the regulation.

An incremental cost effectiveness was not performed because proposed new Rule 468 will be used to satisfy the federal RACT requirements in the CAA. An incremental cost effectiveness analysis will be prepared in the future when this source category is evaluated to meet BARCT or all feasible measure requirements.

Socioeconomic Impact

CHSC Section 40728.5 requires a district to perform an assessment of the socioeconomic impacts before adopting, amending, or repealing a rule that will significantly affect air quality or emission limitations. The District Board is required to actively consider these impacts of the proposal and make a good faith effort to minimize adverse socioeconomic impacts.

CHSC Section 40728.5 defines "socioeconomic impact" to mean the following:

1. The type of industry or business, including small business, affected by the proposed rule or rule amendments.
2. The impact of the proposed rule or rule amendments on employment and the economy of the region.
3. The range of probable costs, including costs to industry or business, including small business.
4. The availability and cost-effectiveness of alternatives to the proposed rule or rule amendments.
5. The emission reduction potential of the rule or regulation.
6. The necessity of adopting, amending, or repealing the rule or regulation to attain state and federal ambient air standards.

Type of industry or business, including small business, affected by the proposed rule: Rule 468 applies to any business that performs coating operations on miscellaneous plastic parts and products, business machine plastic parts, or transportation plastic parts with actual VOC emissions greater than or equal to 2.7 tons of VOC per 12-month rolling period. Small businesses that have actual uncontrolled emissions less than 2.7 tons of VOC per 12-month rolling period are not subject to this rule. The rule also applies to manufacturers, sellers and distributors of coatings and cleaning materials for the source categories that would be regulated by this rule, some of which may be small businesses.

Impact on employment and economy in the District of the proposed rule: Staff has determined that the one facility that would be subject to the rule already meets the proposed requirements; therefore, no impact on employment or the economy is expected from the new rule.

Range of probable costs, including costs to industry or business, including small business of the proposed rule: No costs are expected for industry/business subject to Rule 468.

Availability and cost effectiveness of alternatives to the proposed rule: The District is required at a minimum to adopt the RACT standards specified in the CTG document. An alternative to the proposed rule is to make the rule more stringent by requiring smaller sources (i.e., those with actual VOC emissions less than 2.7 tons per rolling 12-month period) to meet the rule standards. Staff identified eight small sources that apply coatings on plastic substrates, with combined VOC emissions of approximately 1.1 tons per year (0.003 tons per day). The potential emission reductions that could be obtained from these sources would not make a significant contribution toward meeting air quality standards. Nevertheless, the District will evaluate the need to adopt a more stringent rule in the future to meet state BARCT and all feasible measure requirements for this source category. In doing so, Staff will assess the technological and economic feasibility and the cost-effectiveness of requiring small sources to meet the rule standards.

Emission reduction potential of the proposed rule: Proposed Rule 468 is not expected to achieve additional emission reductions.

Necessity of adopting the rule: Staff finds that proposed Rule 468 is necessary to satisfy the requirements of Section 182(b)(2) of the federal Clean Air Act, which requires the District to adopt RACT for CTG source categories. The coating operations subject to this rule are included in the CTG for Miscellaneous Metal and Plastic Parts Coatings.

PUBLIC OUTREACH/COMMENTS

On February 1, 2018, Staff met with representatives from Siemens Industry, Inc. at their Sacramento facility. Siemens coats transportation plastic parts and is the only source in Sacramento County with annual emissions great enough to be subject to Rule 468. Staff presented information on the reasons behind the rulemaking and how the requirements would apply to their facility, and provided Siemens with the opportunity to ask questions.

Siemens asked Staff to clarify what is meant by “plastic,” and whether rubber materials are included. Siemens also asked why a proposed low-use exemption for coatings that don’t meet the VOC limits included only coatings used on miscellaneous plastic parts and products, but not

transportation or business machine plastic parts. After the meeting, Staff examined these issues further.

Staff contacted a staff member at EPA Region IX, who confirmed that the CTG was not intended to apply to the coating of rubber. Therefore, coatings applied to rubber are not subject to Rule 468. To clarify the rule, a definition of plastic was added to the rule (Section 242).

The rule as originally proposed included an exemption for low usage of coatings, when applied to miscellaneous plastic parts and products that exceed the VOC limits: up to 50 gallons per year for coatings in any individual category and up to 200 gallons per year for coatings in all categories. That exemption was recommended in the CTG. However, EPA guidance for RACT coating rules provides for a different form of low-use exemption: up to 55 gallons per 12-month rolling period, rule-wide[11]. After considering the options, Staff has revised the proposed rule by removing the original low use exemption and adding the 55 gallon exemption based on the 1990 EPA guidance memorandum. The revised exemption allows the use of up to 55 gallons per 12-month period of coatings that exceed the VOC limits, including all coatings subject to the rule, not just those applied to miscellaneous plastic parts and products. Although this exemption covers a broader range of coatings, it does not allow the use of up to 200 gallons per year of high VOC coatings, as does the original exemption recommended in the CTG.

Staff held a public workshop on February 7, 2018, to discuss the proposed rule. A public notice was published in the Sacramento Bee, emailed to interested parties (including the affected source, Siemens) and posted on the District website. The draft rule and Statement of Reasons was made available for public review at that time.

Two questions at the workshop asked for minor clarification. One written comment was received, from Siemens, asking whether Staff intended to define plastic and rubber, as discussed above. All comments and responses are included in Appendix C.

ENVIRONMENTAL REVIEW

California Public Resources Code Section 21159 requires an environmental analysis of the reasonably foreseeable methods of compliance. Proposed Rule 468 establishes the requirements, including the VOC limits, for the surface coating of miscellaneous plastic parts and products, business machine plastic parts, and transportation plastic parts. Staff identified one source that will be subject to the proposed rule. That source already complies with the proposed VOC limits. Therefore, Staff has concluded that no environment impacts will be caused by the proposed rule.

[11] Memorandum from G.T. Helms, U.S. EPA Office of Ozone/Carbon Monoxide Programs, Branch Chief, to Air Branch Chiefs, U.S. EPA Regions I – X. Subject: Exemption for Low-Use Coatings. August 10, 1990. (Included in Appendix D).

Staff finds that the proposed rule is exempt from the California Environmental Quality Act as an action by a regulatory agency for the maintenance or protection of the environment (Class 8 Categorical Exemption, Section 15308 State CEQA Guidelines) and because it can be seen with certainty that there is no possibility that the activity in question may have a significant adverse effect on the environment[12].

[12] State CEQA Guidelines, Section 15061(b)(3).

FINDINGS

The CHSC, Division 26, Air Resources, requires local districts to comply with a rule adoption protocol as set forth in Section 40727 of the Code. This section contains six findings that the District must make when adopting, amending, or repealing a rule. These findings and their definitions are listed in the following table.

Table 4: Rule 468 – Required Findings

Finding	Finding Determination
Authority: The District must find that a provision of law or of a state or federal regulation permits or requires the District to adopt, amend, or repeal the rule. [CHSC Section 40727(b)(2)].	The District is authorized to adopt Rule 468 by CHSC Sections 40001, 40702, and 41010 and CAA Sections 110, 172, and 182 and related statutory and regulatory requirements.
Necessity: The District must find that the rulemaking demonstrates a need exists for the rule, or for its amendment or repeal. [CHSC Section 40727(b)(1)].	It is necessary to adopt Rule 468 to comply with the RACT requirements as specified in the federal Clean Air Act Sections 172(c)(1) and 182(b)(2)(A).
Clarity: The District must find that the rule is written or displayed so that its meaning can be easily understood by the persons directly affected by it. [CHSC Section 40727(b)(3)].	Staff has reviewed the proposed rule and determined that it can be understood by the affected parties. In addition, the record contains no evidence that people directly affected by the rule cannot understand the rule.
Consistency: The rule is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations. [CHSC Section 40727(b)(4)].	The proposed rule does not conflict with, and is not contradictory to, existing statutes, court decisions, or state or federal regulations.
Non-Duplication: The District must find that either: 1) The rule does not impose the same requirements as an existing state or federal regulation; or (2) that the duplicative requirements are necessary or proper to execute the powers and duties granted to, and imposed upon the District. [CHSC Section 40727(b)(5)].	The proposed rule does not duplicate any existing state or federal regulations.
Reference: The District must refer to any statute, court decision, or other provision of law that the District implements, interprets, or makes specific by adopting, amending or repealing the rule. [CHSC Section 40727(b)(6)].	In adopting the proposed rule, the District is implementing the requirements of Sections 172(c)(1) and 182(b)(2)(A) of the federal Clean Air Act.
Additional Informational Requirements: In complying with CHSC Section 40727.2, the District must identify all federal requirements and District rules that apply to the same equipment or source type as the proposed rule or amendments. [CHSC Section 40727.2].	Sources subject to the proposed rule must also comply with the requirements for solvent cleaning and surface preparation materials in Rule 466. Appendix B includes a comparison with federal requirements.

REFERENCES

California Air Resources Board. *Determination of Reasonably Available Control Technology for Metal Parts and Products Coating Operations*. Sacramento, CA: December 10, 1992.

Sacramento Metropolitan Air Quality Management District. *Demonstration of Reasonably Available Control Technology for the 2008 Ozone NAAQS (RACT SIP)*. Sacramento, CA: January 23, 2017.

---. *Proposed Amendments to Rule 451, Surface Coating of Miscellaneous Metal Parts and Products.* Sacramento, CA: September 27, 2010.

---. *Proposed Amendments to Rule 459, Automotive, Mobile Equipment and Associated Parts and Components Coating Operations.* Sacramento, CA: July 25, 2011.

---. *SMAQMD 2015 Area Source Methodology for Plastic Parts & Products Coatings.* Sacramento, CA: December 15, 2016.

San Joaquin Valley Unified Air Pollution Control District. *Final Draft Staff Report for Proposed Amendments to Rule 4603, Surface Coating of Metal Parts and Products, and Rule 4684, Polyester Resin Operations.* Fresno, CA: September 17, 2009

---. *Rule 4603 – Surface Coating of Metal Parts and Products, Plastic Parts and Products, and Pleasure Crafts.* Fresno, CA: September 17, 2009.

South Coast Air Quality Management District. *Rule 1145 – Plastic, Rubber, Leather, and Glass Coatings.* Diamond Bar, CA: December 4, 2009.

U.S. Environmental Protection Agency. *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006. Washington, DC: September 2008.

---. *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings*, EPA-453/R-08-003. Washington, DC: September 2008.

---. *2013 Final Report: Integrated Science Assessment for Ozone and Related Photochemical Oxidants.* Washington, DC: February 2013.

APPENDIX A
SUMMARY OF PROPOSED RULE

Rule 468 – Surface Coatings of Plastic Parts and Products

SECTION NUMBER	PROPOSED LANGUAGE
101	Sets the purpose to limit the emission of VOC from coatings and cleaning materials associated with the coating of miscellaneous plastic parts and products, transportation plastic parts, and business machine plastic parts.
102	Sets the applicability to any person who uses, applies, or solicits the use or application of any coating for miscellaneous plastic parts and products or transportation and business machine plastic parts. Cleaning materials are also included. Manufacturers, distributors, and sellers are responsible only for complying with the provisions that pertain to product data sheets, procedures for calculating VOC content, and test methods.
103	Incorporates the District's standard severability language in case any provisions of the rule are invalidated by a court.
110	Exempts coating operations that are subject to other District rules. These other District rules contain VOC limits and other requirements that are at least as stringent as the CTG.
111	Exempts stationary sources with total actual emissions less than 2.7 tons of VOC per 12-month rolling period from the requirement of this rule except for the recordkeeping requirement in Section 501. The CTG for Miscellaneous Metal and Plastic Parts Coating recommends this exemption level for the total of all coating operations subject to the CTG. Because the CTG category has been subdivided into separate District rules, Section 110 requires summing actual emissions from operations subject to the proposed Rule 468, miscellaneous metal parts and products coating operations subject to Rule 451, truck bed liner coatings, underbody coatings, and vehicle materials (the coatings/materials covered by the CTG) subject to Rule 459, and the surface coating of pleasure craft.
112	Exempts coatings sold in non-refillable aerosol containers having a capacity of one liter or less. This exemption is consistent with the CTG and Rule 451.
113	Exempts from the application equipment requirement airbrush operations using 5 gallons or less per calendar year on miscellaneous plastic parts and products. This exemption is consistent with the CTG.
114	Exempts the use of coatings that exceed the VOC content limits, provided the volume of all such coatings used at a stationary source does not exceed 55 gallons per 12-month rolling period and the recordkeeping requirements of Section 501 are met. This exemption is consistent with the EPA RACT guidance memo (see Appendix D) regarding approvable low-use exemptions in RACT coating rules.
115	Exempts specific types of coatings for miscellaneous plastic parts and products from VOC limits. This list of coatings is consistent with the CTG.
116	Exempts specific types of coatings for transportation and business machine plastic parts from VOC limits. This list of coatings is consistent with the CTG.
117	Exempts automobile and light-duty truck assembly coating operations. These operations are subject to the requirements of a different CTG (Control Techniques Guidelines for Automotive and Light-Duty Truck Assembly Coatings, EPA-453/R-

SECTION NUMBER	PROPOSED LANGUAGE
	08-006, September 2008). Currently, there are no sources in Sacramento County to which this CTG applies.
118	Exempts pleasure craft coating operations. Although the surface coating of pleasure craft is covered by the CTG, the District does not have any pleasure craft coating operations to which this CTG applies. The District will be submitting a negative declaration for the pleasure craft portion of the CTG in order to meet the RACT requirements. The District will consider in the future a pleasure craft coating rule.
201	Sets definition of “adhesion primer” consistent with the CTG.
202	Sets definition of “aerosol container” consistent with other District coating rules. This term is not defined in the CTG.
203	Sets definition of “air-dried coating” consistent with the CTG.
204	Sets definition of “airbrush operation” consistent with SCAQMD Rule 1145. This term is not defined in the CTG.
205	Sets definition of “application equipment” consistent with other District coating rules. This term is not defined in the CTG.
206	Sets definition of “automobile” consistent with the Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings. To clarify the term “light loads of property,” the gross vehicle weight rating of 8,500 pounds or less was added, which is consistent with the definition of “light-duty truck.” The definition clarifies the exemption for automobile and light-duty truck assembly coating operations.
207	Sets definition of “automobile and light-duty truck assembly coating operations,” which was derived from the discussion in the Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings. This definition clarifies the exemption for automobile and light-duty truck assembly coating operations.
208	Sets definition of “baked coating” for transportation plastic parts consistent with the definition of “high bake” in the CTG.
209	Sets definition of “base coat” consistent with SCAQMD Rule 1151 – Motor Vehicle and Mobile Equipment Non-Assemble Line Coating Operations. This term is not defined in the CTG.
210	Sets definition of “business machine plastic part” consistent with the CTG.
211	Sets definition of “cleaning material” consistent with the CTG.
212	Sets definition of “clear coating” consistent with the CTG.
213	Sets definition of “closed container” consistent with other District coating rules. This term is not defined in the CTG.
214	Sets definition of “coating” consistent with other District coating rules and the CTG.
215	Sets definition of “dip coat” consistent with the CTG.
216	Sets definition of “electric dissipating coating” consistent with the CTG.
217	Sets definition of “electromagnetic interference/radio frequency interference shielding coating” consistent with the CTG.
218	Sets definition of “electrostatic preparation coating” consistent with the CTG.
219	Sets definition of “electrostatic spray” consistent with the CTG.
220	Sets definition of “emission control system” consistent with Rule 459.
221	Sets definition of “end user” consistent with other District coating rules. This term is not defined in the CTG.
222	Sets definition of “exempt compound” to have the same meaning as defined in Rule 101.
223	Sets definition of “extreme performance coating” consistent with the CTG.

SECTION NUMBER	PROPOSED LANGUAGE
224	Sets definition of “flexible primer” consistent with the CTG definition of “flexible coating.”
225	Sets definition of “flow coat” consistent with the CTG.
226	Sets definition of “fog coat” consistent with the CTG.
227	Sets definition of “gloss reducer” consistent with the CTG.
228	Sets definition of “hand application equipment” consistent with other District coating rules. This term is not defined in the CTG.
229	Sets definition of “high-volume low-pressure (HVLP) application equipment” consistent with other District coating rules and the CTG.
230	Sets definition of “light-duty truck” consistent with the Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings. This definition clarifies the exemption for automobile and light-duty truck assembly coating operations.
231	Sets definition of “low-volume low-pressure (LVLP) application equipment” consistent with other District coating rules. This term is not defined in the CTG.
232	Sets definition of “mask coating” consistent with the CTG.
233	Sets definition of “medical device” consistent with Rule 466. This term is not defined in the CTG.
234	Sets definition of “metallic coating” consistent with the CTG.
235	Sets definition of “military specification coating” consistent with the CTG.
236	Sets definition of “miscellaneous plastic parts and products,” which is consistent with the discussions in the CTG.
237	Sets definition of “mold seal coating” consistent with the CTG.
238	Sets definition of “multi-colored coating” consistent with the CTG.
239	Sets definition of “multi-component coating” consistent with the CTG.
240	Sets definition of “one-component coating” consistent with the CTG.
241	Sets definition of “optical coating” consistent with the CTG.
242	Sets the definition of “plastic” as “any material that has been formed from one or more synthetic resins. Plastic may be solid, porous, flexible or rigid.” This is consistent with the definition of “plastic part and product” in 40 CFR Part 63, Subpart PPPP – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, with the further clarification that the resins are synthetic.
243	Sets definition of “pleasure craft” consistent with the CTG.
244	Sets definition of “pleasure craft coating operation” consistent with the intent of the CTG that includes coating operations at manufacturing and maintenance/repair facilities. This term is not defined in the CTG; however, this term incorporates the CTG definition of “pleasure craft coating.”
245	Sets definition of “primer” consistent with Rule 459. This term is not defined in the CTG.
246	Sets definition of “repair coating” consistent with the CTG.
247	Sets definition of “resist coating” consistent with the CTG.
248	Sets definition of “roll coater” consistent with other District coating rules. The term is not defined in the CTG.
249	Sets definition of “shock-free coating” consistent with the CTG.

SECTION NUMBER	PROPOSED LANGUAGE
250	Sets definition of “stationary source” consistent with Rule 202 – New Source Review except for the part of the definition concerning cargo carriers. Cargo carriers are not associated with the coating operations subject to this rule.
251	Sets definition of “stencil coating” consistent with the CTG.
252	Sets definition of “texture coating” consistent with the CTG.
253	Sets definition of “topcoat” consistent with the CTG.
254	Sets definition of “touch-up coating” consistent with the CTG.
255	Sets definition of “transfer efficiency” consistent with the CTG and Rule 459.
256	Sets definition of “translucent coating” consistent with the CTG.
257	Sets definition of “transportation plastic part,” which is consistent with the discussion and definitions in the CTG.
258	Sets definition of “two-component coating” consistent with the CTG.
259	Sets definition of “vacuum-metalizing coating” consistent with the CTG.
260	Sets definition of “volatile organic compound (VOC)” to have the same meaning as defined in Rule 101.
261	Sets definition of “volatile organic compound (VOC) content as applied” as the VOC content calculated pursuant to Section 402 or 403, consistent with Rule 451 and the CTG.
301	Establishes the VOC content limits for coatings applied to miscellaneous plastic parts and products. These limits are consistent with the limits in the CTG.
302	Establishes the VOC content limits for coatings applied to transportation plastic parts. These limits are consistent with the limits in the CTG.
303	Establishes the VOC content limits for coatings applied to business machine plastic parts. These limits are consistent with the limits in the CTG.
304	Establishes the requirements for coating application equipment consistent with the CTG recommendations except for the recommendations for airless and air-assisted airless spray. Airless and air-assisted airless spray have lower transfer efficiencies than HVLP spray guns and, therefore, were not included as allowable application methods in the proposed rule. This is consistent with other district coating rules. Although the CTG does not specifically list LVLP application equipment, the CTG allows an application method that is capable of achieving a transfer efficiency equivalent to that achieved by HVLP application equipment. The definition of LVLP is narrower and meets the definition of HVLP equipment.
305	Specifies that the cleaning materials must comply with the requirements in Rule 466. Rule 466 does not have emission limits for the cleaning materials used to clean application equipment. Also, establishes work practice requirements for cleaning materials, consistent with the CTG.
306	Provides for the use of emission control equipment with an overall system efficiency not less than 90% as an alternative to complying with the VOC content limits in Sections 301-303. This provision is consistent with the CTG.
401	Requires the seller to provide product information and material data sheets to the purchaser at the time of sale and specifies the information that must be included, consistent with Rule 451. This requirement is necessary so that the sellers provide the users with the information needed to show that the user is using compliant materials.

SECTION NUMBER	PROPOSED LANGUAGE
402	Specifies the equation to calculate the VOC content of coatings, less water and exempt compounds, consistent with other District coating rules. The equation is also consistent with California Air Resources Board's Determination of Reasonably Available Control Technology for Metal Parts and Products Coatings[13].
403	Specifies the equation to calculate the VOC content of cleaning material, consistent with other District coating rules. The equation is also consistent with California Air Resources Board's Determination of Reasonably Available Control Technology for Metal Parts and Products Coatings.
404	Specifies the equations to calculate the VOC mass emission rate and percent control efficiency, consistent with other District coating rules.
405	Specifies the equation to calculate the overall system efficiency of the emission collection and control system, consistent with other District coating rules. The equation is also consistent with California Air Resources Board's Determination of Reasonably Available Control Technology for Metal Parts and Products Coatings.
406	Requires any person using an emission control device to submit an operation and maintenance plan to the Air Pollution Control Officer for approval, consistent with other District coating rules. The purpose of the plan is to specify operation, maintenance, and recordkeeping procedures that will ensure proper performance of the control device.
407	Establishes the requirement that when the actual VOC emissions from a stationary source equal or exceed 2.7 tons per 12-month rolling period, the source must comply with the VOC coating limits in Sections 301, 302 and 303. Once the source loses the small source exemption specified in Section 111, the source can no longer qualify for the small source exemption in the future.
501	Establishes the recordkeeping requirements for end users, which include maintaining a current list of materials used, product information for the current materials, usage records, control equipment records, and maintaining records on site for five years.
502	Establishes approved test methods used to determine compliance with this rule. The test methods are consistent with Rule 459, with the following exceptions. In Section 502.2, EPA technical guideline document "Guidelines for Determining Capture Efficiency" was added because this guidance document outlines the procedure to determine the collection efficiency. In Section 502.4, ASTM D6133-02 is not included because it not an EPA-approved method, and because the same analytes can be quantified by SCAQMD Method 304-91 (EPA-approved), which has been added. In Section 502.6, EPA Method 24 is specified as the method for determining solids content instead of ASTM D2832-92 (not EPA-approved). In Section 502.7, only the SCAQMD guideline for demonstrating HVLP equivalency is included, consistent with the requirement in Section 304.8.

[13] California Air Resources Board. *Determination of Reasonably Available Control Technology for Metal Parts and Products Coating Operations.* Sacramento, CA: December 10, 1992.

APPENDIX B
40727.2 MATRIX OF PROPOSED RULE

Rule 468 – Surface Coating of Plastic Parts and Products

	Comparative Requirements			
Elements of Comparison	**Proposed Rule 468**	**National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 60, Subpart TTT)**	**Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine (40 CFR 63, Subpart PPPP)**	**Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER)**
Applicability	Any person who supplies, sells, offers for sale, manufactures, distributes, uses, applies, or solicits the use or application of any coating for miscellaneous plastic parts and products, or transportation and business machine plastic parts within the District.	Owner or operator of a new, reconstructed, or existing affected source that uses 100 gallons per year or more of coatings containing HAP in the surface coating of plastic parts and products, and the source is a major source, located at a major source, or part of a major source of emissions of HAP.	Applies to each spray booth in which plastic parts for use in the manufacture of business machine receive prime coats, color coats, texture coats, or touch-up coats. Applies to any facility for which construction, modification, or reconstruction began after January 8, 1986.	Surface coating of plastic parts and products.
Exemptions	Small sources with actual emissions less than 2.7 tons of VOC per 12-month rolling period prior to emission control equipment. Use of coatings exceeding VOC content limits provided the use of all such coatings is less than 55 gallons per 12-month rolling period, per stationary source. Coating operation subject to other District rules. Pleasure craft coatings.	An operation where the facility uses only coatings, thinners and other additives, and cleaning material that contain no organic HAP. Occur at research or laboratory, part of janitorial, building and maintenance operation, or in hobby shops for noncommercial purposes. Surface coating operation performed on site at installations owned or operated by the Armed Forces of the U.S.		No specific exemptions.

	Comparative Requirements			
Elements of Comparison	**Proposed Rule 468**	**National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 60, Subpart TTT)**	**Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine (40 CFR 63, Subpart PPPP)**	**Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER)**
	Coatings from aerosol containers less than or equal to 1 liter. Automobile and light-duty truck assembly coatings. Application equipment for airbrush operations on miscellaneous plastic parts and products. For miscellaneous plastic parts and products, the VOC limits do not apply to touch-up and repair coatings, stencil coatings, clear or translucent coatings, coatings at a paint manufacturing facility while conducting performance tests, reflective coatings, mask coatings, EIM/RFI shielding coatings, or HBAC-containing coatings. For transportation and business machine plastic parts, the VOC limits do not apply to texture coatings applied to transportation plastic parts, vacuum metalizing coatings, gloss reducers, adhesion primers, electrostatic	Surface coating where plastic is extruded onto plastic parts or products to form a coating. Surface coating of magnet wire. In-mold coating operations or gel coating operations in the manufacture of reinforced plastic composite parts that meet Subpart WWWW. Surface coating of plastic components that are subject to another subpart. Screen printing.		

	Comparative Requirements			
Elements of Comparison	**Proposed Rule 468**	**National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 60, Subpart TTT)**	**Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine (40 CFR 63, Subpart PPPP)**	**Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER)**
	preparation coatings, resist coatings or stencil coatings.			
Averaging Provisions	None.	None.	None.	None.
Units	Grams of VOC per liter of material or pounds of VOC per gallon of material.	Kilograms of HAP emitted per kg coating solids used during each 12-month compliance period.	Kilograms of VOC per liter of coating solids applied.	Grams of VOC per liter, pounds of VOC per gallon, or pounds of VOC per hour.
Emissions Limits	<u>Miscellaneous Plastic Parts and Products</u> General Multi-Component Coatings: 420 g/l Electric Dissipating and Shock-Free Coatings: 800 g/l Extreme Performance Coatings - One-component: 280 g/l - Two-component: 420 g/l Metallic Coatings: 420 g/l Military Specification Coatings: - One-component: 340 g/l - Two-component: 420 g/l Mold Seal Coatings: 750 g/l Multi-Colored Coatings: 680 g/l Optical Coatings: 800 g/l	<u>For new or reconstructed sources:</u> New general use coating: 0.16 kg of HAP/kg of coating solids used New automotive lamp coating: 0.26 kg of HAP/kg of coating solids used New TPO coating: 0.22 kg of HAP/kg of coating solids used New Assembled on-road vehicle coating: 1.34 kg of HAP/kg of coating solids used <u>For existing sources:</u> General use coating: 0.16 kg of HAP/kg of coating solids used Automotive lamp coating: 0.45 kg of HAP/kg of coating solids used	<u>Business Machine Plastic Parts</u> Prime coating: 1.5 kg of VOC per liter of coating solids applied Color Coating: 1.5 kg of VOC per liter of coating solids applied Texture Coating: 2.3 kg of VOC per liter of coating solids applied Touch-up Coating: 2.3 kg of VOC per liter of coating solids applied	For spray booths with an exhaust flow rate less than 30,000 acfm, use low VOC materials achieved in practice and high-transfer efficiency equipment. For spray booths with an exhaust flow rate greater than or equal 30,000 acfm, use an air pollution control device when it is cost-effective; otherwise, use low VOC materials achieved in practice and high transfer efficiency equipment.

	Comparative Requirements			
Elements of Comparison	**Proposed Rule 468**	**National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 60, Subpart TTT)**	**Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine (40 CFR 63, Subpart PPPP)**	**Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER)**
	Vacuum-Metalizing coatings: 800 g/l All Other Coatings: 280 g/l <u>Transportation Plastic Parts</u> Exterior Parts - Flexible Primer: 580 g/l Air-Dried, 540 g/l Baked - Non-Flexible Primer: 580 g/l Air-Dried, 420 g/l Baked - Base Coat: 600 g/l Air-Dried, 520 g/l Baked - Clear Coatings: 540 g/l Air-Dried, 480 g/l Baked - Touch-up and Repair Coating: 620 g/l Air-Dried or Baked All Other Coatings: 600 g/l Air-Dried, 520 g/l Baked Interior Parts - Flexible Primer: 600 g/l Air-Dried, 540 g/l Baked - Non-Flexible Primer: 600 g/l Air-Dried, 420 g/l Baked - Base Coat: 600 g/l Air-Dried, 520 g/l Baked - Clear Coatings: 600 g/l Air-Dried, 480 g/l Baked - Touch-up and Repair Coating: 620 g/l Air-Dried or Baked	TPO coating: 0.26 kg of HAP/kg of coating solids used Assembled on-road vehicle coating: 1.34 kg of HAP/kg of coating solids used		

	Comparative Requirements			
Elements of Comparison	**Proposed Rule 468**	**National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 60, Subpart TTT)**	**Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine (40 CFR 63, Subpart PPPP)**	**Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER)**
	- All Other Coatings: 600 g/l Air-Dried, 520 g/l Baked <u>Business Machine Plastic Parts</u> Primer or Topcoat: 350 g/l Texture Coating: 350 g/l Fog Coat: 260 g/l Touchup and Repair Coating: 350 g/l All other coatings: 350 g/l			
Compliance alternatives	Emission control equipment with overall system efficiency of ≥ 90%.	Add-on controls to reduce organic HAP to levels less than or equal to the applicable emission limits.		Emission control equipment.
Work Practice Requirements	Use closed containers for disposal of materials used for surface preparation, cleanup and coating removal; store VOC materials in containers that are closed when not in use; dispose of VOC materials in a manner such that VOCs are not emitted; minimize spills; and convey VOC materials using closed containers or pipes.	Work practice standards apply if you use an add-on control device: -All organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste material must be stored in closed containers -Spills must be minimized -Materials must be conveyed from one location to another in closed containers or pipes -Mixing vessels must be closed except when adding to, removing, or mixing the contents.	None.	Closed containers for disposal of materials used for surface preparation, cleanup and coating removal; and minimizing spillage.

	Comparative Requirements			
Elements of Comparison	**Proposed Rule 468**	**National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 60, Subpart TTT)**	**Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine (40 CFR 63, Subpart PPPP)**	**Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER)**
		-Emissions must be minimized during cleaning of storage, mixing, and conveying equipment. -Other work practice alternatives granted by EPA		
Monitoring/ Records	Current list of materials used; product data sheets of all materials; daily and monthly usages; recordkeeping for air pollution control equipment if used.	A copy of each notification and report submitted to EPA. A current copy of information provided by materials suppliers or manufacturers. Calculation of the organic HAP. Name and mass of each coating, thinner and/or other additive, and cleaning material. Mass fraction of coating solids for each coating used. Date, time and duration of each deviation.	Records of all data and calculations used to determine monthly VOC emissions from each coating operation for each affected facility. Recordkeeping requirements for facilities using add-on controls will be determined by the Administrator.	Determined by permit.
	Records kept for a continuous five-year period.	Keep records for 5 years where for at least 2 years, the records are kept on site.	Records kept for at least 2 years.	Determined by permit.
Monitoring/ Testing	Applicable test methods are specified under Section 502 of the rule.	Method 311 to determine the mass fraction of organic HAP. Method 24 to determine mass fraction of non-aqueous volatile matter.	Method 24 to determine VOC content. Other method approved by the Administration.	Determined by permit.

	Comparative Requirements			
Elements of Comparison	**Proposed Rule 468**	**National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 60, Subpart TTT)**	**Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine (40 CFR 63, Subpart PPPP)**	**Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER)**
	No frequency specified in the rule.	12-month compliance period.	Initial performance test and thereafter a performance test each nominal 10-month period.	Determined by permit.

APPENDIX C
COMMENTS AND RESPONSES

Public Workshop
February 7, 2018, 9:30 AM

Attendees: Phil Brown, PPG
Robert Johnstone, PPG
Allan Maurey, Siemens Industry
Candy Tong, Trinity Consultants

Oral Questions from the Public Workshop

Question #1: How does the rule apply to solvents?

Response: The rule does not set VOC standards for solvents used for cleaning or surface preparation. Those materials are already subject to VOC standards in Rule 466 – Solvent Cleaning. However, Rule 468 does contain work practice requirements in Section 305 that are intended to reduce solvent evaporation.

Question #2: How does the air quality in Sacramento compare to the San Joaquin Valley and the Bay Area?

Response: Sacramento County in designated as nonattainment for the 2008 federal 8-hour ozone standard, with a classification of severe-15. The San Joaquin Valley is classified as extreme nonattainment, while the Bay Rea is classified as marginal nonattainment. The Clean Air Act requires areas classified as moderate nonattainment or worse to adopt RACT for CTG source categories. Therefore, we must adopt, at a minimum, the CTG recommendations for RACT standards for plastic parts coating operations.

Written Comments from Allan Maurey, Siemens (February 14, 2018)

Question #1: Will the final rule include a definition of plastic and rubber part?

Response: We have added a definition of plastic in Section 242. We've also confirmed with staff at EPA Region IX that the CTG was not intended to apply to the coating of rubber. Therefore, we do not consider coatings applied to rubber to be subject to Rule 468.

APPENDIX D

EPA GUIDANCE MEMORANDUM ON EXEMPTION FOR LOW-USE COATINGS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

10 AUG 1990

MEMORANDUM

SUBJECT: Exemption for Low-Use Coatings

FROM: G. T. Helms, Chief
Ozone/Carbon Monoxide Programs Branch

TO: Chief, Air Branch, Regions I-X

The purpose of this memorandum is to clarify an issue raised in a meeting of the ozone/volatile organic compound (VOC) policy work group concerning a low-use exemption for coatings. Several Regions asked whether low-use coatings could be exempted from the control techniques guideline (CTG) for miscellaneous metal parts and products and for other applicable source categories.

A low-use exemption for specialty or other coatings may be reasonable for a source that uses small quantities for intermittent or specialty-type operations. Previous guidance has allowed the use of a coatings usage rate as the basis for an exemption if it is shown to be equivalent to emission rate cutoffs (Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations, May 25, 1988). At least one district in California allows an exemption for facilities that use less than 20 gallons per year not to exceed 50 gallons per year plantwide. Oklahoma allows an exemption for low-use coatings in site-specific alternate reasonably available control technology (RACT) requirements for the aerospace industry if the total usage in the aggregate for all such coatings at the plant does not exceed 55 gallons per year.

Upon considering the States' experiences with the coatings, we believe that a plantwide cutoff of 55 gallons per rolling 12-month period for all low-use coatings in the aggregate used at a facility is reasonable. Thus, we recommend that you propose for approval, as State implementation plan (SIP) revisions, any VOC regulations that exempt low-use coatings from the requirements of the applicable CTG's if the plantwide consumption of these coatings in the aggregate is less than or equal to 55 gallons during the previous 12 months. Use of this plantwide cutoff should be limited by a federally enforceable permit. For high VOC coatings, this exemption would result in relatively low VOC emissions (e.g., a coating with a VOC content of 6 pounds per gallon of coating would result in approximately 0.2 tons per year VOC emissions on a plantwide basis).

This exemption applies to facilities already subject to RACT for CTG sources; therefore, sources emitting less than 10 tons per year (potential) or 3 pounds per hour, 15 pounds per day (actual) are not affected. Sources wishing to take advantage of a low-use coating exemption should notify the

State agency prior to using this exemption, and should identify the composition or percentages of solid and liquid components for each low-use coating. The State may wish to specify that all existing sources wishing to use this exemption notify the State by a specific date (i.e., a specified number of days following the effective date of the rule.) This exemption could be identified in the State permit. Compliance would be based on the source's ability to stay below 55 gallons per rolling 12-month period for all low-use coatings. Once the total volume used of all specifically exempted, noncomplying low-use coatings exceeds 55 gallons during the previous 12 months, then the source is in violation. In this case, the source would be required to comply with RACT and would no longer be eligible to apply for a permit that would allow a low-use coating exemption.

Obviously, good records are essential in order for this type of exemption to work properly. To assist enforcement personnel in identifying what coatings at a particular facility are exempt, the source owner or operator should maintain purchase records and keep a log (preferably daily) of exempt coatings. Plant personnel should record the type of coating and the quantity used over time (e.g., daily), as well as the coating composition (e.g., VOC content) of each coating. Recordkeeping should be consistent with the procedures published in the guidance manual, "Recordkeeping Guidance Document for Surface Coating Operations and the Graphic Arts Industry."

If you have any questions, please call John Silvasi (FTS 629-5666) or David Cole (FTS 629-5565).

cc: R. Biondi, SSCD
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L. Kesari, SSCD
L. Schultz, AQMD
J. Silvasi, AQMD
Ozone/VOC Policy Work Group