

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX AIR DIVISION

Technical Support Document

For

EPA's Direct Final Rulemaking

For the

California State Implementation Plan

San Diego County Air Pollution Control District,
Rule 67.4, Metal Container, Metal Closure and Metal Coil Coating Operations

Prepared by: Adrienne Borgia

Reviewed by: Andrew Steckel

June, 2012

Agency: San Diego County Air Pollution Control District (SDCAPCD or District)

SIP Approved Rule: Rule 67.4 – Metal Container, Metal Closure and Metal Coil Coating Operations
Adopted and Effective– May 15, 1996
Submitted – October 18, 1996
EPA Approved – November 3, 1997 (62 FR 59284)

Subject of this TSD: Rule 67.4 – Metal Container, Metal Closure and Metal Coil Coating Operations
Adopted and Effective – November 9, 2011
Submitted – February 23, 2012

RULE SUMMARY – SDCAPCD Rule 67.4, Metal Container, Metal Closure and Metal Coil Coating Operations, is a rule that applies to all metal container, metal closure and metal coil coating operations in which volatile organic compounds (VOCs) are used.

SDCAPCD regulates an ozone nonattainment subpart 1 area for the 8-hour ozone national ambient air quality standard (NAAQS)¹ and SDCAPCD has designed Rule 67.4 partly to address the requirements for ozone non-attainment areas as described in Clean Air Act (CAA) §182. Both federal and state laws require the District to implement rules that regulate emissions of ozone precursors – VOCs and oxides of nitrogen. Rule 67.4 serves to reduce VOC emissions, principally by reducing the VOC content limit for cleaning materials to 25 grams per liter unless specific cleaning and control equipment is used. Other means designed to reduce VOC emissions are the use of specific coating application equipment including high transfer efficiency coating application equipment, the option of using control equipment and the usage record keeping requirements for coatings with VOC content.

Of the two facilities subject to Rule 67.4 in San Diego County, one currently uses water-based coatings with a very low VOC content and water as a cleaning material, and has negligible VOC emissions and the other facility currently uses low VOC content coatings and acetone (an exempt compound) as a cleaning agent. According to the District's agenda item, the total VOC emissions from this facility are about 3.6 tons/year.² Both companies already comply with all proposed rule amendments. The proposed

1. 40 CFR 81

2. SDCAPCD Agenda Item AP02, Noticed Public Hearing – Adoption of Amendments to Rule 64.7, Metal Container, Metal Closure and Metal Coil Coating Operations, November 9, 2011

amendments to Rule 67.4 also contain more stringent emission standards for cleaning materials intended to become new BACT in San Diego.³

Definitions of relevant and applicable terms are listed in section (c) of Rule 67.4. Only the definition for “High-Volume Low-Pressure (HVLP) Spray” has been added. The definition for “Pail” has been improved to add the capacity range and metal gauge and “VOC”, “VOC Content per Volume of Coatings, less Water and Exempt Compounds” and “VOC, Content per Volume of Cleaning Material” have been revised to refer to a definition in Rule 2, “Definitions”. Section (d) itemizes standards: subsection (1) defines the VOC limits for fifteen metal container, closure and coil coating categories, subsection (2) defines the acceptable application equipment and subsection (3) prescribes the VOC limit for cleaning solvents as 25 grams/liter unless other cleaning containers or enclosures are used.

The air pollution control equipment required for surface coatings exceeding the VOC limits specified in section (d) (1) or (3) is generally defined in section (e). This includes an approved air pollution control system and an approved Operations and Maintenance Plan. The required recordkeeping in section (f) basically comprises lists of coatings and cleaning materials and monthly or daily usage records. Finally, acceptable test methods for VOC content, other solvent content, calculations of total VOC vapor pressure, measurements of transfer efficiency and computation methods to determine capture efficiency and overall efficiency, are stipulated in section (g).

EPA EVALUATION CRITERIA - The following criteria were used to evaluate the submitted rule.

1. Enforceability - The Bluebook (*Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations*, EPA, May 25, 1988) and the Little Bluebook (*Guidance Document for Correcting Common VOC & Other Rule Deficiencies*, EPA Region 9, August 21, 2001) were used to evaluate compliance with the CAA §110(a)(2)(A) requirement for enforceability.
2. Stringency – We have compared Rule 67.4 against previous Rule 67.4; CARB’s Compliance Assistance Program for Metal Container, Closure and Coil Coating Operations, July 1991; relevant national guidance including EPA’s Control Technique Guidelines (CTG) titled, Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles and Light-Duty Trucks, May 1977(EPA-450/2-76-028), Miscellaneous Metal and Plastic Parts Coating, September 2008 (EPA EPA-453-R-08-003), and Control of Volatile Organic Emissions from Solvent Metal

3. Comparative Analysis, Amendments to Rule 64.7, Metal Container, Metal Closure and Metal Coil Coating Operations, Attachment B to November 30, 2011 Submittal Letter

Cleaning, September 2006 (EPA 453/-06-001); CARB Final Report of the Phase III Rule Effectiveness Study of the Can and Coil Coating Industry, March 1992; South Coast Air Quality Management District (SCAQMD) Rule 1125, Metal Container, Closure and Coil Coating Operations, amended March 7, 2008; Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 452, Can Coating, amended September 25, 2008; and other state and local rules for this category to help evaluate the RACT requirements of CAA §182(b)(2) and §182(f).

3. SIP Relaxation – Where previous versions of rules have been SIP approved, new submittals must comply with CAA §110(l) and §193 regarding SIP relaxations. We have evaluated this SIP revision to determine whether it would interfere with any applicable requirement concerning attainment and reasonable further progress (RFP) or any other applicable requirement of the Act (CAA 110(l)) or modify, in a nonattainment area, any SIP-approved control requirement in effect before November 15, 1990 (CAA §193).

EPA EVALUATION - The following is EPA’s analysis of the rules based on the evaluation criteria:

1. Enforceability - In general, Rule 67.4 is enforceable because it is clear and requires appropriate recordkeeping in section (f) and testing in section (g).

Test methods have been updated to include the most current EPA methods as well as recent SCAQMD test methods that have been approved by EPA.

2. Stringency – The submitted rule generally has more stringent emission limits than the 1977 CTG and CARB’s Compliance Assistance Program limits and is consistent with analogous requirements in other areas, such as the South Coast Rule 1171, Solvent Cleaning Operations, which requires 25 gram per liter limit for cleaning solvents.

The 85% combined efficiency for control equipment is slightly less than the 90% required by SCAQMD and SMAQMD. In the Workshop Report⁴, it is noted that there are only two companies in San Diego County subject to Rule 67.4, with a combined total VOC emissions of less than four tons per year. The incremental emission reduction benefit of a control system with 90% overall control efficiency versus 85% efficiency is considered to be negligible.

3. SIP Relaxation - The primary change to the rule is the inclusion of a VOC limit for the cleaning of application equipment. While SDCAPCD projects no emission

4. SDAPCD Proposed Amendments to Rule 64.7 – “Metal Container, Metal Closure and Metal Coil Coating Operations”, Attachment D.

reduction for this change⁵, it does strengthen the requirements of the SIP. Therefore, we propose to determine that an approval of the submittal would comply with CAA sections 110(l) and 193 because (1) the proposed SIP revision would not interfere with the on-going process for ensuring that requirements for RFP and attainment of the NAAQS are met, and (2) the submitted SIP revisions are more stringent than the existing SIP requirements.

ADDITIONAL RECOMMENDATIONS FOR THE NEXT RULE REVISION –

The following revisions are not currently the basis for rule disapproval, but are recommended for the next time the rule is amended:

1. In subsection (e)(2)(i), for completeness, please consider changing this to “Identify **and monitor** all key system operating parameters...”
2. Please revise subsection (f) (1) (ii) to “Maintain ~~monthly~~ or daily records showing the amount of each coating, the applicable coating category and cleaning material used.”
3. EPA has approved specific versions of SCAQMD and ASTM test methods, so please use the numbers and/dates in section (h):
 - a. In subsection (g)(1), please specify SCAQMD Test Method 304-91
 - b. In subsection (g) (2), please note that SDAPCD’s Method 24D is only applicable for one of the facilities: NAPP Systems Inc.
 - c. In subsection (g)(3), please correct the date for SCAQMD Method 313-91 to “ dated ~~July~~ June 1991, ...”

EPA ACTION – The rule largely fulfills the relevant CAA §110 and Part D requirements. EPA staff recommends approval of Rule 67.4 pursuant to CAA §110(k) (3) and §301(a).

ATTACHMENTS -

1. SDAPCD Rule 67.4, Metal Container, Metal Closure and Metal Coil Coating Operations, Adopted and Effective November 9, 2011.
2. SDAPCD Rule 67.4, Metal Container, Metal Closure and Metal Coil Coating, Adopted and Effective May 15, 1996.

ADDITIONAL REFERENCES –

1. EPA’s Control Technique Guidelines (CTG) titled, Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles and Light-Duty Trucks May 1977(EPA-450/2-76-028)
[http://www.epa.gov/ttn/naaqs/ozone/ctg_act/197611_voc_epa450_2-76-028_surface_coatings\(v1\).pdf](http://www.epa.gov/ttn/naaqs/ozone/ctg_act/197611_voc_epa450_2-76-028_surface_coatings(v1).pdf)

5. SDAPCD Proposed Amendments to Rule 64.7 – “Metal Container, Metal Closure and Metal Coil Coating Operations”, Attachment C.

2. Miscellaneous Metal and Plastic Parts Coating, September 2008 (EPA EPA-453-R-08-003)
http://www.epa.gov/ttn/naags/ozone/ctg_act/200809_voc_epa453_r-08-003_misc_metal_plasticparts_coating.pdf
3. EPA's Control Technique Guidelines (CTG) titled, "Industrial Cleaning Solvents" (EPA-453/R-06-001), September 2006
http://www.epa.gov/ttn/naags/ozone/ctg_act/200609_voc_epa453_r-06-001_ind_cleaning_solvents.pdf
5. CARB Final Report of the Phase III Rule Effectiveness Study of the Can and Coil Coating Industry, March 1992
6. "Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations," (a.k.a., Bluebook), EPA OAQPS, May 25, 1988.
http://www.epa.gov/ttn/naags/ozone/ozonetech/voc_bluebook.pdf
7. "Guidance Document for Correcting Common VOC & Other Rule Deficiencies," (a.k.a., Little Bluebook), EPA Region 9, August 21, 2001.
<http://www.epa.gov/Region09/air/sips/littlebluebook2001.pdf>