

DRAFT BOARD LETTER

LETTER RELEASE DATE: August 7, 2013

PROPOSAL: Set Public Hearing to Amend Rule 1113 – Architectural Coatings

SYNOPSIS: Amendments are being proposed to provide relief to coating manufacturers from certain rule requirements. The staff proposal includes exempting small coating containers with a capacity of two fluid ounces or less from labeling requirements, clarifying rule intent, and removing outdated language.

COMMITTEE: Stationary Source, August 16, 2013

RECOMMENDED ACTIONS:

Adopt the resolution:

1. Certifying the Notice of Exemption for Proposed Amended Rule 1113 – Architectural Coatings; and
2. Amending Rule 1113 – Architectural Coatings

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Executive Officer

EC:LT:NB

This Board letter is intended to serve as the staff report for this proposed amendment to Rule 1113. At the same time staff is proposing amendments to Rule 314, for which there is a separate draft staff report.

Background

Rule 1113 - Architectural Coatings, was originally adopted by the SCAQMD on September 2, 1977, to regulate the Volatile Organic Compound (VOC) emissions from the application of architectural coatings, and has since undergone numerous amendments. The last amendment on June 3, 2011 revised subparagraph (f)(1), referred to as the small container exemption (SCE), and required, effective January 1, 2014, coatings sold in one liter or smaller containers to comply with all other provisions of the rule, other than the VOC limits. Hence, all other rule requirements, including labeling requirements, will apply to coatings sold in all container sizes. Subsequently, manufacturers expressed concern with labeling very small containers, such as the small sample-sized containers (2 fluid ounces or less) and stains sold in the shape of a pen comprised of about 1/3 of a fluid ounce of product.

The proposed amendments address those concerns and exempt coatings sold in containers, with a capacity of 2 fluid ounces or smaller, from the labeling requirements in subparagraphs (d)(1) through (d)(7). The proposed amendments will also remove outdated rule language and clarify certain provisions and test methods.

Proposal

The proposed amendments to Rule 1113 will:

- Amend the definition for Aerosol Coating Product to harmonize it with the proposed definition in the California Air Resources Board's Consumer Product Regulation
- Add definitions for Multi-Component Coatings and Concentrates
- Clarify the definition of Recycled Coatings
- Clarify that the VOC limits on Colorants in the Table of Standards 2 applies to colorants added to architectural and industrial maintenance coatings
- Clarify that the Sell-Through provision, subparagraph (c)(4), and the small container exemption, subparagraph (f)(1), only applies to the Table of Standards 1

- Clarify that the provisions regarding open containers not in use (subparagraph (c)(5)), and Group II exempt compounds (subparagraph (c)(8)) also apply to colorants
- Clarify that Rules 1143 – Consumer Paint Thinners and Multi-Purpose Solvents and 1171 – Solvent Cleaning Operations apply to solvent cleaning involving architectural coatings
- Exempt containers having capacities of two fluid ounces or less from the labeling requirements in subparagraphs (d)(1) through (d)(7)
- Clarify that the VOC content displayed on the container for Multi-Component Coatings must be the maximum VOC content of the mixture of all components, as recommended for use, and the VOC content on the container for a coating sold as a concentrate must be the maximum VOC content at the minimal dilution recommended for use by the manufacturer
- Correct minor errors in the definitions for Architectural Coatings and Reactive Penetrating Sealers
- Clarify that the equivalent test method, SCAQMD Method 313, which is currently used to analyze low-VOC architectural coatings, is an approved VOC test method

The proposed amendments also remove the following outdated requirements:

- Metallic Pigmented Coatings (MPC): in the June 3, 2011 amendment the definition clarified that MPCs are decorative coatings effective July 1, 2012. Proposed subparagraph (b)(37). The amendment deletes the effective date.
- Quick Dry Enamels and Quick Dry Primer, Sealer, Undercoaters: the definitions were subsumed by the Non-Flat and Primer, Sealer, Undercoater categories respectively effective July 1, 2011. The categories were also removed from the Table of Standards 1. Staff proposes to retain the definitions for clarification, as many manufacturers still use these terms for marketing purposes. The amendment deletes the effective date. Proposed subparagraph (b)(48) and (49).
- Averaging Compliance Option (ACO): in the June 3, 2011 amendment, several coating categories were removed from the ACO effective December 31, 2011. The effective date and ceiling limits are being removed from the Table of Standards 1 and proposed subparagraph (c)(6)(A).

- **General Provision:** in the June 3, 2011 amendment, a general provision was included for Group II exempt compounds effective January 1, 2013. The effective date language is being removed. Subparagraph (c)(8).
- **Clear Topcoat for Faux Finishes:** in the June 3, 2011 amendment a clear top coat for faux finishes was included, as was labeling requirements effective January 1, 2012. The effective date language is being removed. Subparagraph (d)(7).
- **Small Container Exemption:** in the June 3, 2011, amendment bundling of the small containers was prohibited effective July 1, 2011 with a sell-through period until January 1, 2012. The effective date and sell-through language is being removed. Subparagraph (f)(1).

California Environmental Quality Act (CEQA)

The SCAQMD staff has reviewed the proposed amendments to Rule 1113 pursuant to CEQA Guidelines §15002(k)(1) – Three Step Process, and CEQA Guidelines §15061 – Review for Exemption, and has determined that the proposed amendments are exempt from CEQA pursuant to CEQA Guidelines §15061 (b)(3) (“General Rule Exemption”). PAR 1113 would provide an exception from labeling requirements for containers two fluid ounces or less. PAR 1113 also includes minor changes to improve clarity. Evaluation of the proposed project resulted in the conclusion that it would not create any adverse effects on air quality or any other environmental areas. Therefore, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Since it can be seen with certainty that the proposed project has no potential to adversely affect air quality or any other environmental area, it is exempt from CEQA pursuant to CEQA Guidelines §15061(b)(3) – Review for Exemption. The Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties immediately following the adoption of the proposed project.-

Socioeconomic Analysis

Since the amendment does not significantly affect air quality or emissions limitations, a socioeconomic assessment is not required. The proposed amendments will result in a cost saving to the affected manufacturers as the labels of coatings sold in two ounce or smaller containers will not have to be altered.

Legislative Authority

The California Legislature created the SCAQMD in 1977 (The Lewis Presley Air Quality Management Act, Health and Safety Code Section 40400 et seq.) as the agency responsible for developing and enforcing air pollution controls and regulations in the

Basin. By statute, the SCAQMD is required to adopt an AQMP demonstrating compliance with all state and federal ambient air quality standards for the Basin [California Health and Safety Code Section 40440(a)]. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP [California Health and Safety Code Section 40440(a)].

AQMP and Legal Mandates

The California Health and Safety Code requires the SCAQMD to adopt an AQMP to meet state and federal ambient air quality standards in the South Coast Air Basin. In addition, the California Health and Safety Code requires the SCAQMD to adopt rules and regulations that carry out the objectives of the AQMP. The proposed amendments are not an AQMP control measure but serve to clarify the existing rule and to remove a specific labeling requirement. The rule does not implement BARCT or a 'feasible measure' under Health and Safety Code Section 40920.6 so incremental cost-effectiveness findings are not required.

Draft Findings Under California Health and Safety Code

Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the hearing. The draft findings are as follows:

Necessity - The SCAQMD Governing Board has determined that a need exists to amend Rule 1113 - Architectural Coatings to remove labeling requirements for coatings sold in containers with a capacity of two ounces or less and clarify certain rule language.

Authority - The SCAQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, and 41508.

Clarity - The SCAQMD Governing Board has determined that the proposed amendments to Rule 1113 - Architectural Coatings, are written and displayed so that the meaning can be easily understood by persons directly affected by them.

Consistency - The SCAQMD Governing Board has determined that PAR 1113 - Architectural Coatings, is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, federal or state regulations.

Non-Duplication - The SCAQMD Governing Board has determined that the proposed amendments to Rule 1113 - Architectural Coatings do not impose the same requirement as any existing state or federal regulation, and the proposed amendments are necessary

and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

Reference - In adopting these amendments, the SCAQMD Governing Board references the following statutes which the SCAQMD hereby implements, interprets or makes specific: Health and Safety Code Sections 40001 (rules to achieve ambient air quality standards), 40440(a) (rules to carry out the Air Quality Management Plan), and 40440(c) (cost-effectiveness), 40725 through 40728 and Federal Clean Air Act Sections 171 et seq., 181 et seq., and 116.

References

US EPA State Implementation Plan approval for SCAQMD Method 313
<http://yosemite.epa.gov/R9/r9testmethod.nsf/Districts/EE05A31011BE9B4D88256FC6000A4C53?OpenDocument>

[Uyên-Uyên T. Võ, and Michael P. Morris; Non-Volatile, Semi-Volatile, or Volatile: Redefining Volatile for Volatile Organic Compounds, August 31, 2012.](#)

Attachment

- A. Response to Comments
- B. Rule Language

A T T A C H M E N T A

R E S P O N S E T O C O M M E N T S

P R O P O S E D A M E N D E D R U L E 1 1 1 3 – A R C H I T E C T U R A L C O A T I N G S

Response to Comments

The following are excerpts from the comment letters and emails. The public comments were received during the commenting period from June 20, 2013 to June 27, 2013. Additional comment letters received after the close of comments are also included.

The following are comments from the American Coatings Association – Comment Letter #1.

Comment

1-1. Colorant containers:

(c)(5) All architectural coating or colorant containers ~~used to apply~~ from which the contents are used therein to a surface direct from said container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These ~~architectural coating~~ containers include, but ~~should~~ are not ~~be~~ limited to: drums, buckets, cans, pails, trays or other storage or application containers.

Response

Staff concurs with the recommendation and revised the proposed rule language accordingly.

Comment

1-2. Reference to Rule 1171 and Rule 1143 – ACA is concerned that the language with regards to Rule 1171 and Rule 1143 is found under the “(c) Requirements” Section of the rule, therefore a violation of either 1171 or 1143 could also be a violation of Rule 1113. In addition, ACA is concerned that as written, paint stores that occasionally clean paint brushes (for example as part of a product demonstration) – would be considered as part of a business and subject to Rule 1171, which is problematic. ACA suggests deleting these paragraphs from the Requirements section of the rule and issue a separate compliance advisory. As an alternative, move the Rule 1171 and Rule 1143 language to the very end of the rule under a new “Notice” or “Reference” section. Either way, ACA requests the District clarify that paint stores are not subject to Rule 1171.

Response

Staff concurs and has removed the references to Rules 1143 and 1171 from the originally proposed subdivision (c) Requirements and created a new subdivision (g) Solvent Cleaning. Staff did not add language to the effect that solvent cleaning conducted at a retail outlet *would not* have to comply with Rule 1171 as solvent cleaning conducted at a retail outlet *would* have to comply with Rule 1171. Specifically, Rule 1171(c)(1), Table Section (C) – Cleaning of Coatings or Adhesives Application Equipment has a current limit of 25 g/L, and any such activity conducted at a retail outlet would fall under Rule 1171(a) – Purpose and Applicability, which includes “A solvent cleaning operation is solvent cleaning conducted as part of a

business”.

Comment

1-3. Increase proposed labeling exemption from 2 ounces to 8 ounces – ACA suggests that 8 ounce containers are as difficult to label as are 2 ounce containers, therefore ACA suggests the District instead exempt containers of eight fluid ounces or less from the labeling requirements of the rule.

Response

Staff is not proposing to increase the labeling exemption to 8 ounce containers. In January 2012, the ACA asked District staff to exempt 2 ounce samples and smaller due to the small sample sized containers that are offered by many manufacturers. Staff later received feedback from one manufacturer who was able to label the 2 ounce containers but not their stain marking pens that hold 1/3 of a fluid ounce. Staff considered requiring manufacturers to apply for a variance but decided to commence a targeted rule amendment to provide relief from the upcoming January 1, 2014 requirement. Staff is proposing to exempt 2 fluid ounces or less from all labeling requirements. Increasing the size to 8 ounce containers would include specialty coatings and not just the sample-sized containers used for color testing. In addition, it would be unfair to those manufacturers who have already incurred the cost of making the changes on their containers.

Comment

1-4. Multi-component Coatings:

(b)(38) MULTI-COMPONENT COATING is a reactive coating requiring the addition of a separate catalyst or hardener before application to form an acceptable dry film."

In addition,

(d)(3) Each container of any coating subject to this rule shall display the maximum VOC content of the coating, with any thinning as recommended by the manufacturer and excluding any colorant added to tint bases. The VOC content of low-solids coatings shall be displayed as grams of VOC per liter of material; the VOC content of multi-component coatings shall be displayed as grams of VOC per liter of the mixed coating; and the VOC content of any other coating shall be displayed as grams of VOC per liter of coating. Colorants added at the point of sale are regulated separately under Rule 1113(c)(2), Table of Standards 2.

Response

Staff concurs with the suggested definition and revised the proposed rule language accordingly, but will include guidance on the VOC labeling in a list format for clarity.

Comment

1-5. 2 Ounce Containers Labeling Exemption Language – as written, the 2 ounce containers could still be subject to date code, the Rust Preventative and Clear Faux Finish labeling provisions.

Response

Staff revised the initial proposal to exempt 2 ounce and smaller containers from all of the labeling provision (subparagraph (d)(1) through (d)(7)).

Comment

1-6. 8 Ounce Container Labeling Exemption – the problem with small containers both 2 ounces but also 8 ounce containers is that there is very little room on the container to place the required labeling. In addition, containers less than or equal to 8 ounces cannot be labeled using standard automated equipment, most likely manually labeled which is time consuming and expensive. Finally, there is an issue of equity, some paint manufacturers provide color samples in two fluid ounce containers, while others supply such color samples in container sizes up to and including eight fluid ounces. Exempting all containers less than or equal to 8 ounces from labeling is more equitable and fair.

Response

See response to comment 1-3.

Comment

1-7. Small Container Labeling Requirements – ACA is concerned that since there is no sell through, small containers on store shelves without proper labeling and after 1/1/2014 would be in violation of Rule 1113. It will be very costly and problematic for us to inventory the label of every small container on every shelf in every customer store in the district, especially since manufacturers do not have control of big box and retail inventory. This will be very time and energy intensive, as well as expensive, especially since there are only six months until this provision goes into effect and the industry does not have the time or resources to inspect every can of paint in the District. In addition, all the unlabeled products would be likely disposed of or thrown out (creating hazardous, solid waste and a source of VOC emissions). Please note that at the June 20 meeting at least one manufacturer was unaware of the lack of a sell through provision for non-labeled small containers, it is very likely that other manufacturers are unaware of the lack of a sell through provisions as well.

It is important to note that there is really no environmental benefit of pulling non-labeled small containers off the shelf since the non-labeled and labeled products have the same VOC content – so the District is not losing any VOC reductions by allowing the non-labeled products to be

sold through. The District mentioned that since small containers do not have VOC content, consumers cannot make informed purchase decisions without the VOC content, however the consumer could ask the sales associate, or ask for an MSDS or contact the manufacturer to obtain the VOC content of the product.

ACA requests that all small containers manufactured prior to 1/1/2014 without labeling be allowed to be sold through. Worst case scenario, ACA requests the District grant enforcement discretion for labeling small containers manufactured prior to 1/1/2014.

Response

During the rule amendment process, approved by the Board on June 3, 2011, staff included a 2 ½ year implementation period based on feedback from the manufacturers on complete transition to new labels. It was not staff's intent to allow an additional 3 years before the requirement was fully implemented. The Governing Board adopted the rule without the sell-through and subsequently at the the Stationary Source Committee September 23, 2011 meeting, further reviewed the additional sell-through relief requests and did not support any changes to the recently adopted amendments. Staff is amending the rule at this time to provide relief to the manufacturers for labeling small sample sized containers (2 fluid ounces) but not to include additional time for the remaining labeling provisions to come into effect.

Comment

1-8. Paint Reuse/Exchange – As SCAQMD is aware, ACA started a not-for-profit product stewardship organization called PaintCare. PaintCare was established to provide a product stewardship organization for the architectural paint industry in order to manage postconsumer architectural paint at its end-of-life. PaintCare works to ensure effective operation of paint product stewardship programs on behalf of all architectural paint manufacturers by providing a level playing field for all participants, a sustainable financing mechanism, and cost efficient administration. In addition, on behalf of manufacturer participants, PaintCare undertakes responsibility for ensuring an environmentally sound and cost-effective program by developing and implementing strategies to reduce the generation of post-consumer architectural paint; promoting the reuse of post-consumer architectural paint; and providing for the collection, transport and processing of post-consumer architectural paint using the hierarchy of reduce, reuse, recycle and proper disposal.

PaintCare has been operating in California since October of last year, under an approved program plan by CalRecycle, which can be found at: <http://www.calrecycle.ca.gov/epr/policylaw/paint.htm#Paint>.

A key component of the plan and the program itself is waste minimization and reuse – steps that can be taken before leftover paint has to be transported and further process into a recycled product or transported for energy recovery or disposal. As you can see in PaintCare's

program plan, teaching consumers to “buy the right amount;” and “use it up” either through their own reuse or donation to charities, schools, theaters, or through paint exchanges and sales at municipal household hazardous waste locations or restores is integral to generating less paint and ultimately less waste. It has come to our attention, however, that reuse may be inhibited by the current AIM (VOC) regulations – barring the exchange/sale and use of leftover coatings containing higher levels than current VOC limits.

SCAQMD has recognized the competing environmental priorities of waste minimization and air quality management, and currently has an exemption from Rule 1113 for recycling, allowing for higher VOC limits on recycled content coatings. ACA requests the same or similar exemption be made for reuse – as EPA has done in the National AIM Rule at <http://www.epa.gov/ttn/atw/183e/aim/fr1191.pdf>:

“Section II. Summary of Standards

A. Applicability The standards do not apply to the following:

(4) Coatings that are collected and redistributed at paint exchanges in accordance with this rule.

“Paint exchange means a program in which consumers, excluding architectural coating manufacturers and importers, may drop off and pick up usable post-consumer architectural coatings in order to reduce hazardous waste.”

Also – the definition of manufacture reads: “Manufacturer means a person that produces, packages, or repackages architectural coatings for sale or distribution in the United States. A person that repackages architectural coatings as part of a paint exchange, and does not produce, package, or repackage any other architectural coatings for sale or distribution in the United States, is excluded from this definition (emphasis added).”

ACA believes the addition of this language to Rule 1113 (which would exempt Paint Reuse and Paint Exchange operations) would further encourage appropriate post-consumer paint management, while conserving energy and decreasing the improper disposal of leftover paint.

As an alternative, the District could also include all Paint Reuse and Exchange products under the recycled coating category definition and limit of 250 g/l.

Response

Staff encourages the pollution prevention efforts of the PaintCare program and is working to highlight the program in our [architectural coatings webpages](#), but exempting or increasing the VOC limits for paint returned for reuse would hamper enforcement efforts and may be considered backsliding. Most usable paint that is turned in within the SCAQMD through PaintCare should not be more than three years old (based on feedback from manufacturer regarding shelf life) and therefore should meet the current VOC limits. All of those products

can be made available for resale. But to exempt or raise the VOC limit for reuse would encourage coatings from outside of SCAQMD's jurisdiction to be brought in and sold. Staff has already encountered this with 5 gallon pails of a 250g/L flat coatings being offered for sale at a reuse facility. The VOC limit for flat coatings has been at 50g/L since 2008. The investigation into that product revealed that coating was brought into the SCAQMD from Florida.

In addition, rule circumvention could be accomplished by a savvy end user claiming to have purchased a high VOC coating from a reuse supplier. Staff would have no mechanism to prove that that high VOC coating was not purchased through a Paint Reuse and Exchange program.

Staff encourages the resale/reuse of compliant coatings turned in through a Paint Reuse and Exchange program. Coatings not complying with the current Rule 1113 VOC limits can be formulated into recycled coatings with a VOC limit of 250 g/L.

Comment

1-9. AEROSOL COATING PRODUCT: means a pressurized coating product ~~containing pigments or~~ resins and/or other coatings solids that dispenses product ingredients by means of a propellant, and is packaged in a disposable ~~can~~ aerosol container for hand-held application, or for use in specialized equipment for ground marking and traffic marking applications.

Note - this will match up with the change in the aerosol coatings regulation to take place in September.

Response

Staff is proposing to change the definition to match the proposed definition in the Consumer Products Regulation and revised the proposed rule language accordingly.

Comment

1-10. HIGH-TEMPERATURE ~~INDUSTRIAL MAINTENANCE~~ COATINGS: are ~~industrial maintenance~~ coatings formulated for or applied to substrates exposed continuously or intermittently to temperatures above 400 degrees Fahrenheit, which includes industrial maintenance high-temperature coatings.

Note - High Temperature coatings are more than just Industrial Maintenance coatings. These are also used on consumer items like wood stoves and grills.

Response

Staff does not intend to make this change at this time. This would be a significant change that would require more feedback from the stakeholders and a CEQA and socioeconomic analysis. It would open the category up for more high-VOC coatings and would prohibit the exempt

compound t-Butyl Acetate from being used in those coatings. This change would have environmental impacts and possibly financial impacts on the affected manufacturers.

Comment

1-11. MULTI-COLOR COATINGS: are coatings which exhibit more than one color when applied in a single coat and which are packaged in a single container

Note – the intent is that two separate products are not used to create the multi-color coatings effect.

Response

The intent of this category *is* for the coatings to be applied in a single coat and not just be packaged in a single container. This category was created for a small niche coating that is applied in a single coat with multiple colors similar to a wall paper. Staff does not intend to broaden the definition for this high VOC specialty category.

Comment

1-12. POST-CONSUMER COATINGS: ~~are finished coatings that would have been disposed of in a landfill, having completed their usefulness to a consumer, and does not include manufacturing wastes.~~ POST CONSUMER PAINT: means architectural paint not used by the purchaser.

Note – this definition is from the California Paint Stewardship Law - <http://leginfo.public.ca.gov/cgi-bin/displaycode?section=prc&group=48001-49000&file=48700-48706>

Response

Staff is proposing to retain the current, more restrictive definition. The suggested definition is for a different purpose than previously analyzed for the Recycled Coatings category included in Rule 1113.

The following are excerpts from the Dunn Edwards Corporation – Comment Letter #2.

Comment

2-1. make labeling requirements effective for otherwise exempt small containers of architectural coatings that are manufactured on or after January 1, 2014

... is more reasonable and practical than imposing labeling requirements retroactively on small containers that were exempt from those labeling requirements at the time they were manufactured. Especially so, since the change has no impact on emissions, and the additional

information to be provided is readily available from manufacturers even now.

Response

Staff does not intend to allow an infinite sell-through period for the label changes that were adopted by the Governing Board in 2011. There has to be a line beyond which a new requirement is fully implemented. The manufacturer's feedback for label changes at the time of the last amendment was 3 years. Staff allowed for 2 ½ years and this issue is only being addressed because staff opened the rule up to provide labeling relief for small sample sized containers. This issue was addressed during the 2011 rule amendment at both the Public Hearing and the subsequent Stationary Source Committee Meeting. Staff does not intend to change the rule language. See responses to comment 1-7 for additional discussion.

Comment

2-2. insert an exemption from all provisions of the rule for architectural coatings supplied in containers having capacities of eight fluid ounces or less.

... is necessary as a matter of equity and avoidance of anti-competitive impacts. Some paint manufacturers provide color samples in two fluid ounce containers, which the District has proposed exempting from the labeling requirements of Rule 1113. Other manufacturers, however, supply such color samples in container sizes up to and including eight fluid ounces.

Because all these small containers are considered non-standard sizes in the architectural coatings industry, they cannot be labeled (particularly with the required date code) using standard automated equipment, but must be handled by means of manual processes that are relatively expensive and time-consuming. Consequently, exempting anything less than eight fluid ounce containers will confer a competitive advantage on some manufacturers, to the detriment of others – again, without any offsetting beneficial impact on emissions.

Exempting eight fluid ounce containers will also ensure that artist colors and hobby paints that may become architectural coatings by virtue of being applied to stationary structures or their appurtenances will not inadvertently be noncompliant with Rule 1113. Also, since these small containers are already exempt from the VOC content limits of the rule, we think it makes sense to simply insert an exemption from all provisions of the rule for coatings supplied in containers having capacities of eight fluid ounces or less, in the manner described in our suggested revisions, rather than inserting multiple exclusions throughout the rule.

Response

See response to comment 1-3. Exempting containers of eight ounces or less from all provisions of the rule may potentially have adverse air quality impacts, triggering a CEQA analysis.

The following is an excerpt from an email received from Miracle Sealants – Comment #3.

Comment

3-1 We would like to respectfully submit that 2 oz. of an Architectural Coating is not a very large container. We would ask for the exemption for printing VOC on labels to 4 oz. container.

Response

See response to comment 1-3.

The following were received through email communications and meeting with affected manufacturers:

Comment

Concerns have been raised about the treatment of semi-volatile compounds by Method 313 versus EPA Method 24:

“I am opposed to adding Method 313 to Rule 1113 at this time; I believe Method 313 should not be added to Rule 1113 until the District has established a procedure for companies to use to handle semi-volatile materials and to insure that chemicals which do not come off in a 110 degrees C oven in one hour are not counted as VOC. There are a number of compounds which come off in the GC which do not come off, or which do not completely come off in the oven.

As you know, a number of other companies also have concerns about Method 313, and in order to have an expeditious rule adoption, I believe it would be best to not consider this at this time

Response

It is current practice for the SCAQMD laboratory to analyze all coating samples using USEPA Method 24 (M24), with a supplemental analysis for low-VOC, high water coating with a material VOC content of less than 150 g/L using SCAQMD Method 313 (M313). The USEPA and SCAQMD staff, along with industry and academia, recognizes that M24 does not yield accurate results for low-VOC, high-water-containing coatings. M24 is an indirect VOC measurement where the water (titration) and non-volatiles (oven) are measured and everything else is assumed to be VOC. As the VOCs in a coating approaches zero, the indirect VOC measurement becomes unreliable. M313 is a direct VOC measurement technique which includes dilution of samples and analysis using Gas Chromatograph (GC). The VOCs present are separated in a GC, identified by a Mass Spectrometer and quantified by a Flame Ionization Detector.

The GC approach of M313 is similar to the approach developed at California Polytechnic State University, San Luis Obispo that was adopted by the American Society for Testing Material (ASTM) as ASTM D6886 (ASTM6886) *Standard Test Method for Determination of the Individual Volatile Organic Compounds (VOCs) in Air-Dry Coatings by Gas Chromatography*

(GC) in 2003. ASTM is the largest developer of consensus standards and the committee is comprised of members of industry, academia, and regulatory agencies. M313 differs because of additional quality control requirements and was the first GC method to include a marker compound to indicate when a compound should no longer be counted as a VOC, which was always an issue with the GC approach. The SCAQMD has participated in round robin studies (M313 versus 6886) with strong correlation between the two methods. It is staff's understanding that industry relies on ASTM6886 for in house or third party testing of their products.

Method 313-91 has been approved for inclusion in the State Implementation Plan (SIP) and the SCAQMD laboratory staff is currently working with the USEPA, CARB, BAAQMD and others on revising M313, mainly enhanced quality control parameters, inclusion of an endpoint, and an update to the equipment. The 1991 version of the method references older technology which is currently not in common use. The addition of Methyl Palmitate (MP) as the marker compound serves as a delineation between VOCs and non-VOCs. This marker compound was selected to yield consistent results to M24 and the original M313-91. This marker compound was further validated based on its non-volatility under ambient evaporation testing over a 6 month period. Prior to the use of MP as a marker compound, everything detected was measured as a VOC. This 'bright line' approach is used as a straight forward, relatively simple mechanism to determine if a compound is a VOC. M24 determines volatility based on what is driven off in a 110°C forced air oven in an hour. Test results of fully formulated coatings generally show higher VOC results under M24 as many compounds with partial volatility at the relatively high temperature specified are measured as VOC. Alternatively, M313 measures everything that elutes prior to MP as 100% VOC and everything that elutes after MP as 100% non-VOC, over counting small amounts of semi-volatiles compounds that elute prior to the marker compound but undercounting small amounts of semi-volatile compounds that elute after the marker compound, compared to M24.

The issue of semi-volatile compounds does not have much to do with the test method as with the nature of some compounds which may be found in architectural coatings. Most compounds have been tested to be fully volatile using M24 and many others have been demonstrated to be fully non-volatile under the same conditions. However, some compounds may not fully evaporate under M24. It is therefore theoretically possible to have a single compound which is partially evaporated, and therefore difficult to classify as either volatile or non-volatile. In addition, measurements of these semi-volatile compounds are not reproducible by M24. As VOC testing transitioned to a GC method, the lack of endpoint created a significant source of uncertainty as to what should be included as a VOC. Formulators have themselves struggled with determining whether a particular product was compliant, or not, using M24 or M313/ASTM6886 without an endpoint. The intent in choosing MP was to provide clarity on the question of what is and what is not a VOC, while at the same time keeping VOC results tethered to M24 over a broad range of samples and compounds, an important characteristic to

demonstrate equity to the USEPA.

In addition, over the course of analyzing architectural coatings samples over numerous years, very few have been formulated with compounds which fall into the semi-volatile region that elute prior to MP and may be considered a VOC. While the approach of setting a bright line is simplistic, and staff acknowledges that this approach has the potential to over- and underestimate certain VOCs, the empirical data to determine partial volatility of different compounds does not currently exist. There is still a debate as to how to determine this for compounds that are found in paint and coatings. However, there is no debating the fact that M24 lacks accuracy for low-VOC, high water containing coatings and the best solution found is using a GC method, such as M313. It is the current practice by both the SCAQMD laboratory and most manufacturers to use a GC method for VOC analysis and staff wants to clarify this practice in the rule. As the understanding of semi-volatile compounds develops, especially their volatility neat versus in complex mixtures, SCAQMD staff will work with the other regulatory agencies and the manufacturers to determine the most appropriate approach for handling semi-volatiles compounds in the long term.

In regard to the question as to whether or not gas chromatographic elution time correlates with volatility, for most compounds, chromatographs appear to be able to be reliably divided up between volatile, non-volatile, and semi-volatile. However, staff recognizes that some elution times are inconsistent with volatility. One such compound is glycerol; it elutes in an area that would place it as a volatile compound, but is in actuality less volatile than MP. Staff has introduced the idea of exception for compounds such as glycerol, and welcomes suggestions about other compounds which may behave in a similar fashion.

Lastly, the study that is being referenced by the commentator ([Uyên-Uyên T. Võ, and Michael P. Morris; Non-Volatile, Semi-Volatile, or Volatile: Redefining Volatile for Volatile Organic Compounds, August 31, 2012](#)) which compared various VOC test method including M24, M313, Thermogravimetric Analysis and a six month ambient evaporation test was conducted on neat compounds and not fully formulated complex mixtures such as architectural coatings. This study is a first step in many to address the issue of semi-volatile compounds.

The USEPA has provided feedback to SCAQMD staff that they prefer the bright line (VOC/non-VOC) approach, with consideration for the industry to identify problematic compounds and develop protocols to demonstrate that they do not volatilize. As M24 provides a regulatory definition of what a VOC is (anything that is driven off in an hour in a 110°C forced air oven), M313 provides a regulatory definition of what a VOC is for coatings that contain less than 150 grams of VOC per liter of material (anything that elutes prior to MP with possible exceptions such as glycerol). The USEPA staff is not ready to provide any value to partial volatility until additional data is available to support such a conclusion. In the interim, anomalous compounds such as glycerol, should be dealt with on a case by case basis, along

with other potential semi-volatile material.

There has been a need for an improved VOC test method for a long time and there has also been consensus that the GC approach used in M313/6886 is one way to improve the testing. This approach is already being used by the SCAQMD laboratory and industry laboratories and should be included in Rule 1113 with the expectation that there will be further, future improvements/refinements in conjunction with industry, and state and federal regulatory agencies.

Comment

It was not made clear that the sell through provision does not apply to label changes.

Response

The rule states that effective January 1, 2014 the provision of the Table of Standards and paragraph (c)(1) of this rule shall not apply (e.g. the VOC limits). The sell through provision states:

“Any coating that is manufactured prior to the effective date of the applicable limit specified in the Table of Standards 1, and that has a VOC content above that limit (but not above the limit in effect on the date of manufacture), may be sold, supplied, offered for sale, or applied for up to three years after the specified effective date.”

The sell through is only applicable to VOC limit changes and the changes which affect the labeling of small containers goes into effect on January 1, 2014 with no exceptions. The rule did contain a 6 month sell through period for bundled coatings which is listed below the exemption. This issue was debated in depth during the rule amendment process, at length at the Public Hearing to adopt the rule, as well as a subsequent Stationary Source Committee Meeting. The following is from the response to comments in Final Staff Report for the June 3, 2011 amendment:

“Based on feedback received during working group meetings, staff extended effective dates for rule changes sufficiently such that an additional sell through period is not necessary. In regard to the labeling requirements, manufacturers requested a three year period to implement the change so they could use their current labels. If the rule included an additional three years to sell through of old labels, the rule change would not be effective for six years. Staff feels that the proposed three years to implement the change is sufficient without an additional sell through period.”

Comment

It would be prohibitively expensive to remove the old containers from the shelves and this

would not provide an environmental impact.

Response

Staff feels that manufacturers who waited to change their labels until it was too late for the old containers to be sold through are at an economic advantage over the manufacturers who were proactive. The feedback staff received is that it was economically prudent to wait to make a label change when something else on the label needed to be changes. Manufacturers who did not consider the labeling change deadline of January 1, 2014 to be a priority should not be rewarded with a change in the rule to allow for sell-through. Further, products sold in small containers generally have a higher VOC content, sometimes up to 5 fold higher, considering they can take advantage of the VOC content exemption, than the products sold in larger containers. This further provides an economic benefit since most of the higher VOC products are old formulations that are generally more economical to manufacture.

ATTACHMENT B

PROPOSED AMENDED RULE 1113 – ARCHITECTURAL COATINGS