



Par 113 Working Group Meeting

JUNE 17, 2015



OVERVIEW

2012 AQMP CTS-01 includes 2-4 tpd VOC reductions

- Alternative fee structure or *25 g/L VOC limit for flats, non-flats, PSU*
- *Restrictions on Small Container Exemption to address high volume exempt sales*
- *Transfer Efficiency – best practices guideline for spray applying non-IM architectural coatings*
- *Rule Cleanup*



Inventory Concept

Inventory Concept

Architectural Coatings VOC Inventory		
Year	2012 AQMP Annual Avg	314 Reported Data ²
2008	21.9 ¹	19.7
2010	-	16.1
2011	-	15.8
2012	-	13.7
2013	-	13.3
2014	15.5	11.3 ³
2015		11.4 ³
2016		11.5 ³
2017		11.7 ³
2018		11.8 ³
2019	14.2	

Does not reflect most recent data

1. Rule 314 data with 3 tpd added for colorant & small amount from clean up solvent.
2. Includes 2.2 - 3 tpd for colorant until 2014, initiated in the 2008 baseline of the 2012 AQMP.
3. Estimated inventory based on 2012 AQMP growth factors from 2013 and rule reductions.

Rule 314 Data (2014 Preliminary Data)

Sales Emissions by Year		
Year	Sales (gallons)	Emissions (tpd) ¹
2008	40,222,531	16.7
2009	35,060,485	13.1
2010	35,312,467	13.1
2011	38,589,458	12.9
2012	35,665,966	11.0
2013	37,426,165	11.0
2014 ²	35,480,889	9.7

1. Not including colorant, unaudited data that may change in the future
2. Only 179 companies reported as of 06/16/15 versus 231 companies in 2013.

Inventory Concept

- Rule 314 data reflected in 2016 AQMP as the new baseline, with growth projected after 2014
- Preliminary U.S. EPA feedback need to implement CTS-01
 - 2 tpd VOC reduction to meet 2012 SIP commitment
 - Reductions must be enforceable and permanent, e.g. the result of a rule change
 - Can realize some VOC reductions from other sources, must be in the same timeframe (2018)

Proposed Fee Structure in lieu of 25 g/L Limit for flat, non-flat, & PSU

Current Fee Rate for all Coatings

Example Fee Structure

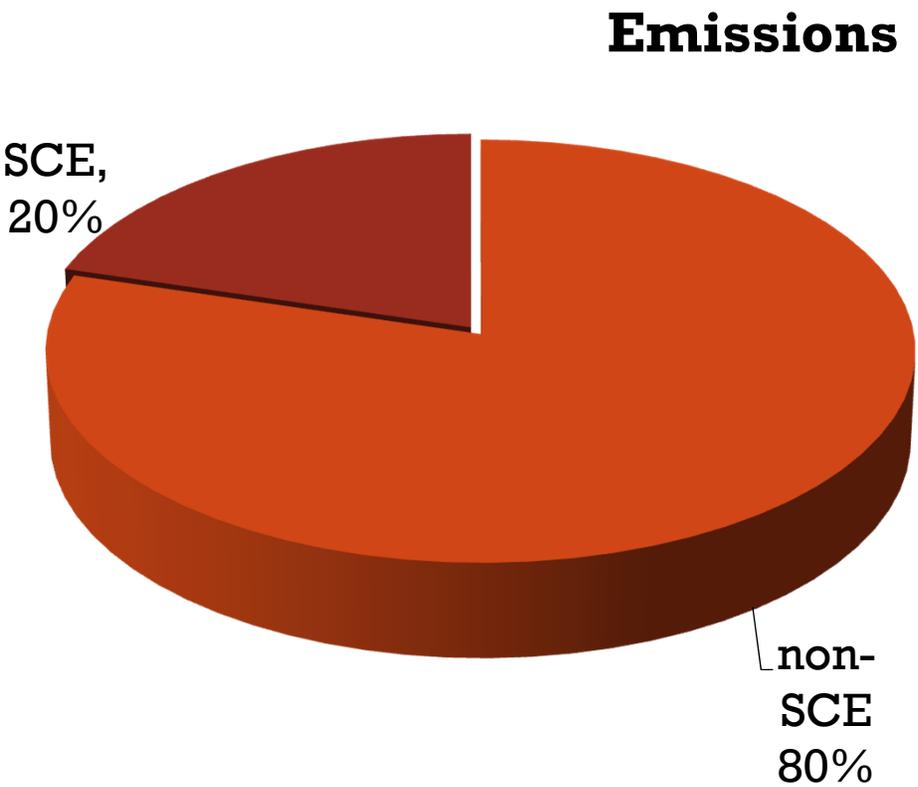
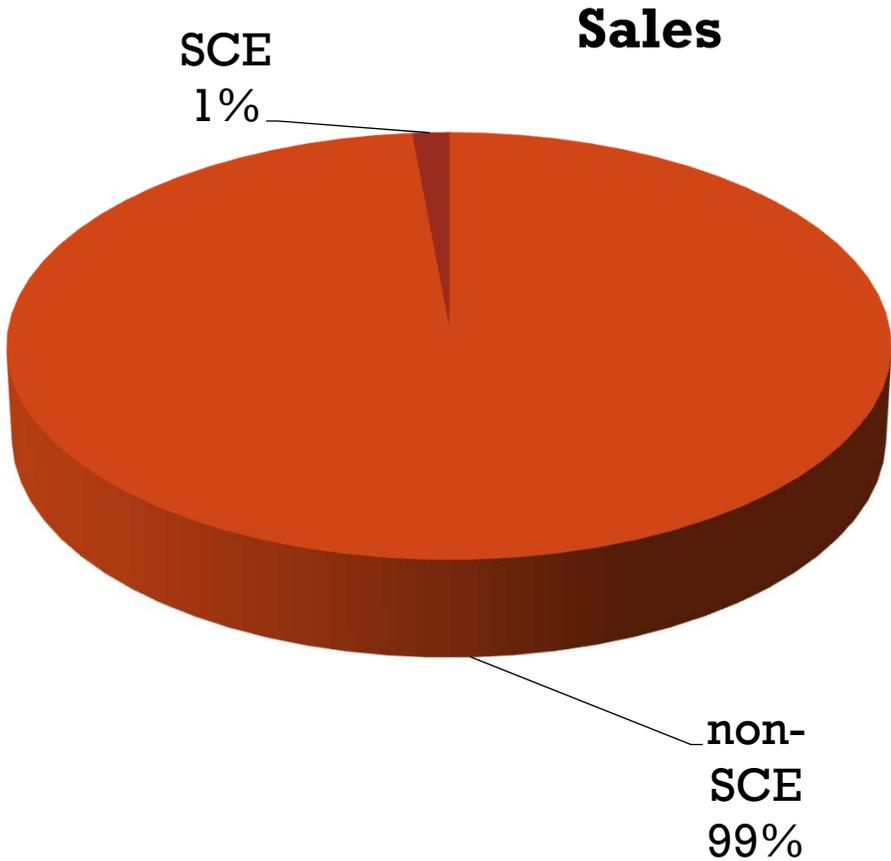
- Fee structure to further encourage sales of low-VOC products
- Revenue neutral
- May have Prop 26 complications for raising fees
- Example For discussion purposes only

~VOC Coating (g/L)	VOC Material (g/L)	Sales Fee	Em Fee
12.5	≤5	\$ -	\$ -
12.5 – 25	5.01 – 10*	\$ 0.009	\$260.54
25 – 62.5	10.01 – 25	\$ 0.039	\$260.54
62.5 – 125	25.01 - 50	\$ 0.049	\$260.54
125 – 250	50.01 - 100	\$ 0.059	\$260.54
> 250	100.01 - VOC limit	\$ 0.069	\$260.54
	>VOC Limit	\$ 0.390	\$260.54

Small Container Exemption

Coating sold in one-liter or smaller containers above the VOC limit

Small Container Exemption (SCE)



Small Container Exemption

- Limit the exemption in certain categories – consider allowing for touch-up*
 - High Use: Nonflats and Rust Preventative
 - Low Use High Volume Category: Flats
 - Prevent Rule Circumvention: IM
- Consider a technology assessment (performance comparison) for other high-use categories, e.g. WPCMS, Stains
- Create sub-categories where needed, e.g. tub and tile
- 93% of non-flat high gloss coatings compliant - no need for door and trim category

Small Container Exemption

- Important for niche, specialty products & touch-up
- Need to limit the exemption when older cheaper technology creates un-level playing field for new lower-VOC technologies
- When usage rates approach 40% of the products sold or volumes sold approaches 100,000 gallons and replacement technology exists in the marketplace – the exemption must be evaluated

Rust Preventative Coatings (RPC)

Response to ACA's comment letter

- Low-VOC coatings available
 - Exempt solvent based
 - Alkyd Emulsions
 - Acrylics
- Touch-up under consideration*
- Coatings can be marketed for non-architectural usage only (outdoor furniture)
- RPCs are being purchased in large, not small quantities
- Staff does not consider IM coatings equivalent with RPC but can foresee creative marketing

Rule Circumvention

- At worksites
 - Gallons to quarts to 5 gallon bucket – NOV



ITEM	QTY	PRICE
TTCR14 Empty Quart Can w/Lid	5	9.85T





Rule Circumvention

- Large retailer confirmed paint contractors purchase small containers, then combine into larger container to provide uniform color
 - Contractors order large quantities of small containers
- Contractors purchase DTM oil-based enamel, then apply to wood
 - Retailer recommends high quality primer if used on wood
- Retailers offering free 4th quart with the purchase of 3 quarts
- Retailers allowing customers access to cases containing 4 quarts – “contractors pak”



Preliminary RPC Sales

RPC Sales & Emissions by Year				
Year	Small Container Exemption		Compliant Sales	
	Sales	Emissions	Sales	Emissions
2008	123,412	0.58	74,990	0.03
2009	145,367	0.68	104,247	0.04
2010	171,675	0.79	174,590	0.08
2011	190,586	0.87	174,281	0.08
2012	149,381	0.70	200,068	0.09
2013	158,027	0.74	166,289	0.08
2014	151,237	0.71	140,253	0.07

Retail Costs – Rust Preventative Coatings

Same coating chemistry – non-exempt v exempt solvent formulation

	Price per gallon			
	Type	1/2 Pint	Quart	Gallon
Store A ¹	Oil		\$43.96	\$27.67
Store B	Oil		\$39.96	\$49.99
Store C	Oil		\$39.96	\$39.99
Store D	Oil	\$95.84	\$47.96	\$48.99
Store E	Oil		\$37.92	\$40.49
Store F	Oil	\$95.84	\$39.96	\$43.74
Store G ²	Oil	\$79.84	\$39.96	\$39.99
Store H	Oil/Water		\$63.96/\$63.96	NA/\$62.99
Store I	Oil/Water	\$109.55	\$45.29/NA	\$43.89/\$29.99

1. Buy 3 get 1 free = \$32.97 for a gallon in quarts
2. \$5 rebate/gallon = \$34.99 for a gallon

Categories & Definitions

GLAZES, which are coatings designed for:

(A) Wet-in-wet techniques, where a wet coating is applied over another wet coating used to create artistic effects, including simulated marble or wood grain, or

(B) Wet-in-dry techniques, where a wet coating is applied over specially prepared pre-painted substrates or base coats *and is either applied or is treated during the drying period* with various tools, such as a brush, rag or sponge, during the drying period to create effects such as but not limited to dirt, old age, smoke damage, simulated marble and wood grain finishes, decorative patterns, or color blending, and wet edge techniques.

WOOD ~~Coatings~~ FINISHES are coatings labeled and formulated for application to wood substrates only, which are applied to substrates including floors, decks and porches. The Wood Coatings category includes the following clear, ~~and~~ and opaque coatings: lacquers, varnishes, and sanding sealers. ~~; penetrating oils; clear stains; wood conditioners used as undercoats; and wood sealers used as topcoats.~~ ~~The Wood Coatings category also includes the following opaque wood coatings: opaque lacquers and opaque sanding sealers; and opaque lacquer undercoaters.~~ *The Wood Coatings category does not include the following: clear sealers that are labeled and formulated for use on concrete/masonry surfaces; or coatings intended for substrates other than wood.*

BUILDING ENVELOPE COATINGS: Coatings formulated for or applied to exterior assembly components to reduce air permeance or resist liquid water that has penetrated a cladding system. Building Envelope Coatings include products commonly classified and marketed as air barriers or water resistive barriers and are applied to diverse materials including CMU, OSB, gypsum board, wood substrates, and adjacent structural components. Building Envelope Coatings which form continuous films are regulated under Rule 1113.

TILE AND STONE SEALERS are clear or pigmented sealers that are formulated and labeled for sealing tile, stone or grout to provide resistance against water, alkalis, acids, ultraviolet light or staining and which meet one of the following subcategories:

- A. Penetrating sealers are polymer solutions that cross-link in the substrate and must meet the following criteria:**
 - 1. A fine particle structure to penetrate dense tile such as porcelain with absorption as low as 0.10% per ASTM C 373, ASTM C 97, or ASTM C 642,**
 - 2. Retain or increase static coefficient of friction per ASTM C 1028, ANSI A137.1,**
 - 3. Allow up to 100% Vapor Transmission per ASTM E 96 90, OHD L 35, and**
 - 4. Not create a topical surface film on the tile or stone.**
- B. Film forming sealers which leave a protective film on the surface.**

TUB AND TILE REFINISHING COATINGS are clear or opaque coatings that are labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Tub and Tile Refinish coatings must meet all

of the following criteria:

1. Have a scratch hardness of 3H or harder and a gouge hardness of 4H or harder as determined on bonderite 1000 in accordance with ASTM D3363-05,
2. Have a weight loss of 20 milligrams or less after 1000 cycles as determined with CS-17 wheels on bonderite 1000 in accordance with ASTM D4060-07,
3. Must withstand 1000 hours or more of exposure with few or no #8 blisters as determined on unscribed bonderite in accordance with ASTM D4585-99, and ASTM D714-02e1, and
4. Must have an adhesion rating of 4B or better after 24 hours of recovery as determined on unscribed bonderite in accordance with ASTM D4585-99 and ASTM D3359-02.

NONFLAT COATINGS are coatings that ~~are not defined under any other definition in this rule and that~~ register a gloss of 5 or greater on a 60 degree meter and a gloss of 15 or greater on an 85 degree meter according to ASTM Test Method D 523 as specified in paragraph (e)(5).

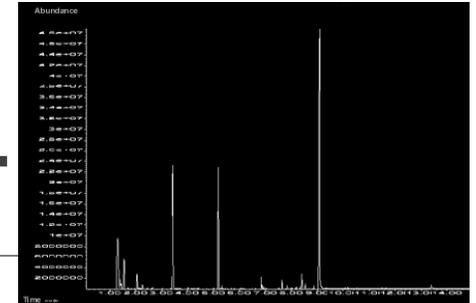
DEFAULT COATINGS are specialty coatings that are not defined in section (b) as any coating category.

Other Concepts

Best Practice Guidelines for Architectural Coatings (not including IM applications):

1. Keep spray pressure as low as possible
2. Use the smallest tip size as appropriate
3. Spray gun should be approximately 12" from the surface
4. Maintain a 90 degree direct angle of the spray gun to the surface. Avoid "fanning" the gun from side to side, and never exceed a 30 degree variance from a 90 degree direct spray application
5. Do not over thin paint material
6. Do not "over reach" when working from a ladder or other lift equipment
7. Always use the gun trigger to begin and end each application stroke
8. Adjust the application overlap to fully cover the surface, yet minimize paint usage

VOC Test Methodology



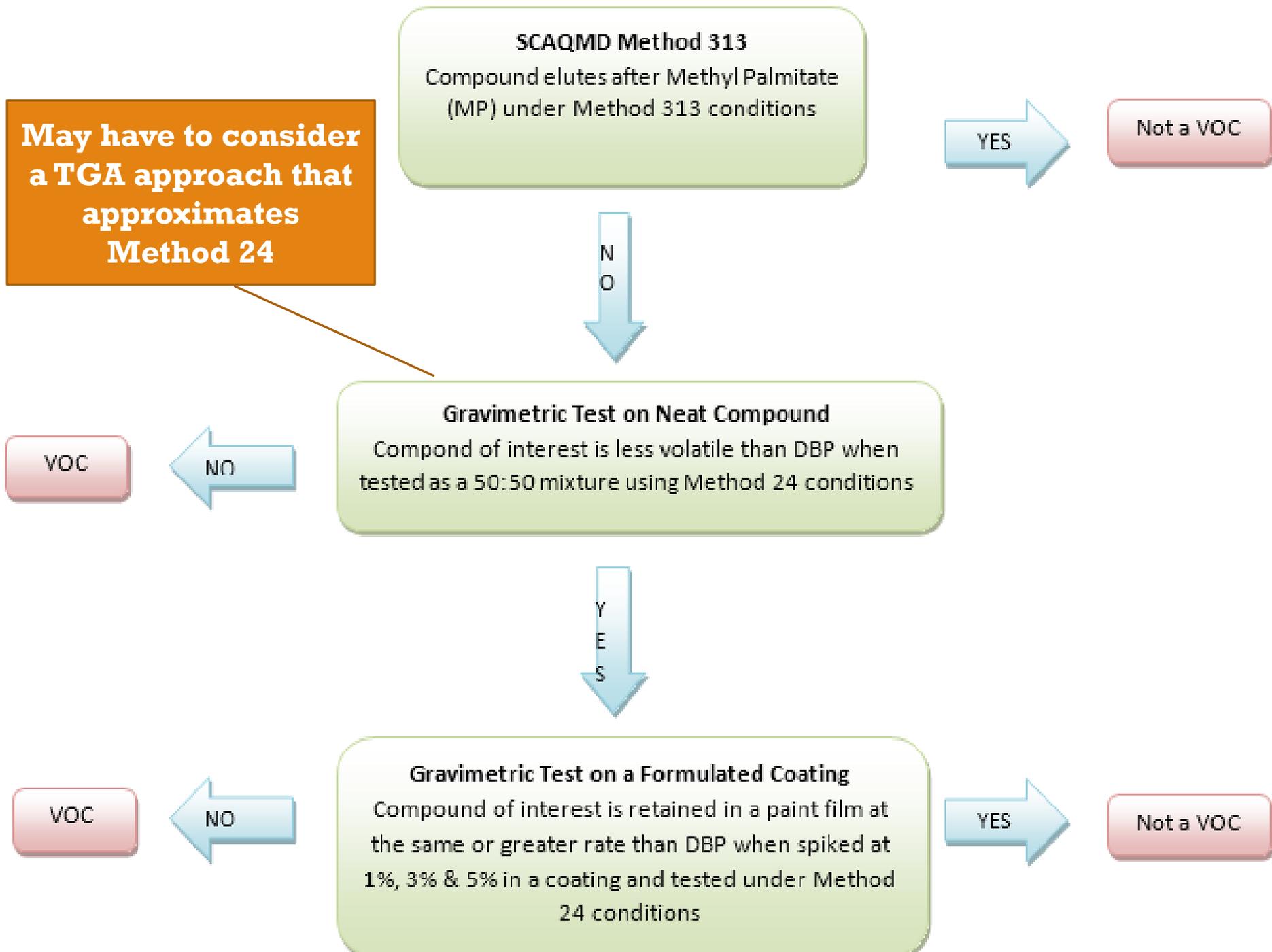
Include SCAQMD Laboratory Method 313

Considering Two Tiered

- Neat Compound evaluation (50:50 mix or TGA)
- Spike a near-Zero VOC coating/resin



Further information in following presentation



Next steps

- Finalize and Vet Exclusion Pathway in Test Method
- Set date of Public Workshop (Mid-August)
- Set date of Public Hearing (November 6, 2015)

