



REGULATORY UPDATE

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OVERVIEW

HOW DID WE GET HERE?
IN THE BEGINNING....

VOC REQUIREMENTS: CALIFORNIA VERSUS THE
REST OF THE COUNTRY

HAZARDOUS AIR POLLUTANTS -
MAJOR SOURCES
AREA SOURCES
RESIDUAL RISK

WHAT NEXT?





THE BEGINNING



HOW / WHERE DID IT ALL START? LONDON KILLER FOG OF 1952



LONDON KILLER FOG OF 1952



Environmental Timeline

- 400 B.C. * Airborne lead from Roman smelters pollutes Northern Europe
- 1943 * First smog episode in Los Angeles, CA
- 1952 * "Killer Fog" claims 4,000 lives in London, England
- 1955 * Air Pollution Control Act
- 1967 Federal Clean Air Act requires states to meet air quality standards
- 1969 * Cuyahoga River in Cleveland, OH catches fire
* Clean Air Act amendment creates stringent anti-pollution laws; sets auto emissions standards
- 1970 * U. S. Environmental Protection Agency created with 5,000 employees and \$1.3 billion budget
- 1971 * National lead-based paint restrictions passed
- 1978 * Love Canal declared "grave and imminent peril"
- 1984 * Methyl isocyanate cloud from Union Carbide plant accident in Bhopal, India kills more than 2,000 people
- 1985 * Giant "hole" in the ozone layer reported over the Antarctic
- 1986 * Chernobyl nuclear reactor explosion triggers worst release of radioactive materials in history;
- 1989 * Exxon Valdez spills nearly 11 million gallons of crude oil into Alaska's Prince William Sound
- 1990 * Clean Air Act amendments begin reduction of acid rain, CFCs

CALIFORNIA SUGGESTED CONTROL MEASURE FOR AUTO REFINISH COATINGS





CA SCM

Adopted Oct. 2005

Applies to application of coatings during refinish, not during manufacture "on an assembly line"

Applies to coatings used on motor vehicles or **mobile equipment** during refinishing, service, maintenance, repair, restoration or modification





CA SCM

Mobile equipment is defined as any device that may be **drawn** and/or **driven** on rails or a roadway e.g. *trains, railcars, locomotives*, truck trailers, mobile cranes, bulldozers, etc.

Motor vehicle is defined as any self-propelled vehicle, e.g. cars, trucks, buses, golf carts, motorcycles, tanks, armored personnel carriers, etc.





CA SCM

Means: where adopted, VOC limits & other requirements in SCM must be complied with during servicing & repair of **rail cars, and etc.**

VOC content limits became effective 1/1/2009 and 1/1/2010.





CA SCM

Applies in 32 (of 59) counties in CA

Includes all CA large cities e.g. LA San Francisco, Sacramento, San Diego, etc.





CA SCM - Application Methods

Application only by

Brush, dip, or roller

Electrostatic spray

HVLP spray

Spray gun designed, labeled & operated
0.1-10 #/in² gauge air atomizing pressure

Alternative methods with equivalent
transfer efficiency, approved by CARB



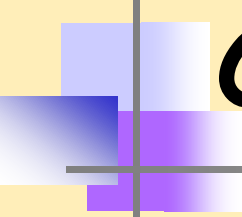


CA - Surface Prep.

Solvents used to prep. surface limited to 0.21 #/gal (25 g/l) in much of the State

A couple very small areas limit surface prep. cleaners to 0.6 or 1.67 #/gal (72 or 200 g/l)





CA- Spray gun cleaning

Most clean up solvents limit: 25 g/l

Most require enclosed gun washer



CA SCM - VOC limits

COATING CATEGORY	g/L [lbs/gal]
Adhesion Promoter	540 [4.5]
Clear Coating	250 [2.1]
Color Coating	420 [3.5]
Multi-color Coating	680 [5.7]
Pretreatment Coating	660 [5.5]
Primer	250 [2.1]
Primer Sealer	250 [2.1]
Single-stage Coating	340 [2.8]
Temporary Protective Coating	60 [0.5]
Truck Bed Liner Coating	310 [2.6]
Underbody Coating	430 [3.6]
Uniform Finish Coating	540 [4.5]
Any Other Coating Type	250 [2.1]



CA - Toxic Emissions from Mobile Equipment Coatings

Mobile equipment is defined as any device that may be **drawn** and/or **driven** on rails or a roadway e.g. *trains, railcars, locomotives*, truck trailers, mobile cranes, bulldozers, etc.

Prohibits use of coatings with hexavalent chromium or cadmium [introduced to impart a property or characteristic, e.g. in a pigment]



CA Rules - Spreading east

Has spread outside state to
OTC states (northeast)

Model Rule - includes rail

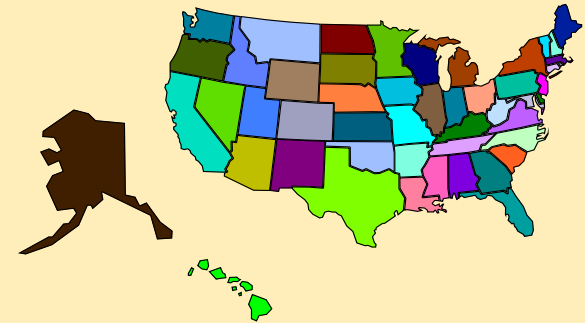
DE - no

MD - yes

[NY - no]

Utah (eff. 7/1/2014) - no

Canada - no



HAZARDOUS AIR POLLUTANT REGS.

Major Sources vs. minor sources

Major sources

PTE 10 tons/yr one HAP -or -

PTE 25 tons/yr all HAPS

Minor sources

Did not meet major definition - or -

Became a synthetic minor by permit



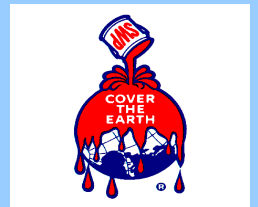
HAPs - Which rules apply to devices drawn or driven on rails?

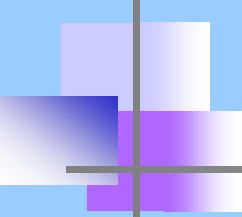
Does Auto Refinish rule apply, like CA?

NO!!!

Thank you, EPA!

HAP rule - Misc. Metal Parts





HAP Rule - Misc Metal

Jan. 2, 2004

Applies to major sources using 250 gal/yr of coatings w/ HAPs

Established general VOHAP limits

New: 1.9# VOHAP/gal solids

Existing: 2.6# VOHAP/gal solids
during each 12-month period

Includes coatings, thinners, additives, and cleaning materials



HAP Rule - Misc Metal

Three compliance options:

1. Compliant materials
 1. Coatings < emission limit
 2. Thinners, additives, cleaners = 0 HAPS
2. Emission Rate
3. Emission Rate with add-on controls





HAPS -Area Sources

40 CFR 63

Subpart HHH HHH [6H]

Misc. Surface Ctg. Operations at Area
Sources





Ctg at Area Sources

Applies to all area sources

Area source is not a major source & not located at or part of a major source

Compliance dates

Existing: 1/10/2011

New: Upon startup after 1/9/2008





Ctg at Area Sources

Applies to paint stripping with MeCl strippers

Spraying ctgs with target HAP

Cr, Pb, Mn, Ni or Cd

Content levels

Noncarcinogens: >1% by wt.

Carcinogens: >0.1% by wt.





Area Sources-MeCl paint stripper

Requirements:

1. Stripping: work practices to minimize evaporation
2. Annual usage reports on site
3. Use minimization plan





Area Sources - Ctg Operations

Painters complete training on proper spray application, set up & maintenance

Training requirements described

Spray coatings in booth with filter with 98% capture eff.

Booth with roof and 3 comp. walls





Area Sources - Spray

Apply by

HVLP

Electrostatic

Airless

Air assisted airless

Or equivalent TE, with written approval of EPA Administrator.





Area Sources - Cleaning

Clean without generating mist or spray outside of a closed container

Disassembled in solvent container- ok

Flushing solvent thru gun [not atomizing]-ok

Fully enclosed spray gun washer





Area Sources - Reports

1. Initial Notification

New: 180 days after start OR by 7/7/08 Existing: By 1/11/10

2. Notification of Compliance Status

New: Usually with initial notice Existing: By March 11, 2011

3. Annual Notification of Changes

Any changes must be reported by March 1.



What's next?

HAPS: Residual Risk

8 years after MACT was final

Misc Metal Parts - final 1/1/04

VOCs: Ozone Std up for re-eval. again

If  then pressure on VOC limits



South Coast [LA]- Misc Metal

Current limit

Single comp.- $\text{VOC}_{\text{reg}} = 2.3 \text{ \#/gal (275 g/l)}$

Multi-comp.- $\text{VOC}_{\text{reg}} = 2.8 \text{ \#/gal (340 g/l)}$

Future limit planned

Single & multi-comp.

SB - $\text{VOC}_{\text{reg}} = 0.8 \text{ \#/gal (100 g/l)}$

WB - $\text{VOC}_{\text{reg}} = 1.6 \text{ \#/gal (200 g/l)}$

& $\text{VOC}_{\text{mat}} = 0.8 \text{ \#/gal (100 g/l)}$



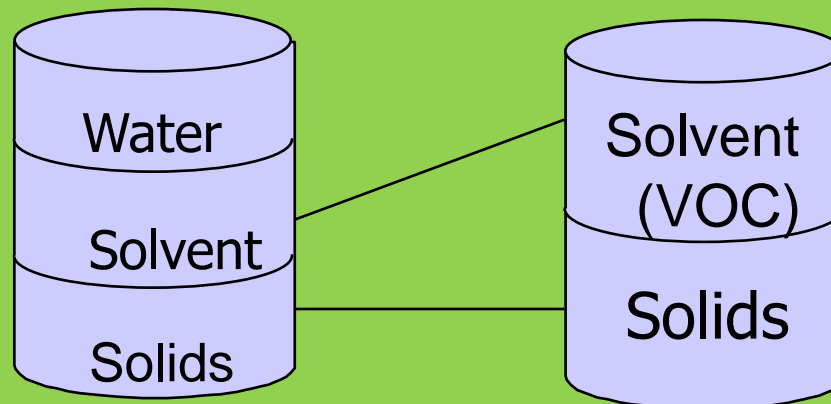


VOC calculations



VOC regulatory

VOC material



Questions

