

Local Stationary/ Area-wide Measures

EDCAQMD

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Regional List of Local Stationary/ Area-wide Measures

Pollutant	Control Measure	Districts Adopting
VOC	Architectural Coatings	All
VOC	Automotive Refinishing	SMAQMD, FRAQMD, PCAPCD, YSAQMD
VOC	Degreasing/Solvent Cleaning	SMAQMD, EDCAQMD, FRAQMD, YSAQMD
VOC	Graphic Arts	YSAQMD
VOC	Natural Gas Production	SMAQMD
VOC	Unspecified Coating	SMAQMD, EDCAQMD
NOx	Asphalt Concrete	SMAQMD, PCAPCD
NOx	Boilers and Process Heaters	YSAQMD
NOx	IC Engines	SMAQMD, FRAQMD, YSAQMD
NOx	Water Heaters	All

Stationary/Area-wide Measures – Architectural Coatings

- Baseline emissions in the Sacramento Region, in 2012
 - 7.4 tpd VOC
- Affected sources
 - do-it-yourself consumers,
 - Construction trades people including:
 - Painting contractors,
 - Cabinet refinishers
 - Flooring contractors
 - Swimming pool painters
 - Roadway striping companies
 - Concrete workers
 - Roofers
 - Deck and fencing manufacturers or installers
 - Industrial and commercial maintenance operations
 - Manufacturers and distributors of paints, wood product coatings, and other surface coating materials

Stationary/Area-wide Measures – Architectural Coatings

- Proposed changes include lowering VOC content for following coating categories:
 - Flat and Nonflat – high gloss
 - Antenna, Antifouling, and Flow Coatings
 - Clear Wood Coatings (Lacquers/Sanding Sealers/Varnishes)
 - Floor Coatings
 - Primers, Sealers, and Undercoaters (including Quick-Dry and Specialty)
 - Quick-Dry Enamels
 - Roof Coatings
 - Stains, Opaque
 - Temperature-Indicator Safety Coatings
 - Traffic Marking Coatings
 - Waterproofing Sealers (including concrete/masonry sealers)
- Cost or Cost Effectiveness
 - Estimated overall cost effectiveness is \$11,612/ton - \$16,996/ton

Stationary/Area-wide Measures – Architectural Coatings

- Schedule

District	Adoption	Implement
EDCAQMD	2010	2012

- Emission Reductions

VOC, tons per day		
2012	2018	2023
0.98	1.27	1.39

Stationary/Area-wide Measures – Degreasing/Solvent Cleaning

- Baseline emissions in the Sacramento Region, in 2012
 - 2.1 tpd VOC
- Affected solvent use and cleaning operations:
 - Electrical apparatus and electronic components manufacturing or repair operations,
 - Construction trades (such as wood finishing)
 - Printing shops,
 - Metal parts and products
 - Can coating
 - Automotive repair shops
 - Electric and electronic components repair and manufacturing facilities, and
 - Many other repair and maintenance operations.

Stationary/Area-wide Measures – Degreasing/Solvent Cleaning

- Proposed changes include the following changes throughout the degreasing, solvent and coating rules:
 - Remove the composite vapor pressure limit option
 - Lower general solvent cleaning and general application equipment cleaning VOC content to 50 grams per liter
 - Lower the VOC content to 50 g/l for the following specialty uses:
 - Flexographic printing application equipment cleanup
 - Can container assembly equipment
 - Vapor and non-vapor degreasing operations
 - Aerospace coating application equipment cleanup
 - Wood coating surface preparation and cleanup
 - Organic Chemical Manufacturing Operations maintenance cleaning
 - Polyester resin cleanup materials

Stationary/Area-wide Measures – Degreasing/Solvent Cleaning

- Lower VOC content in other specialty uses
 - Specialty Flexographic Printing application equipment 100 g/l
 - UV Ink application equipment 500 g/l
 - Electrical Apparatus and Electronic Components 100 g/l
(Application equipment and repair and maintenance cleaning)
 - Sterilization of food manufacturing/processing equipment 200 g/l
- Cost or Cost Effectiveness
 - Estimated overall cost effectiveness is minimal - \$2,220/ton
 - In general compliant materials are readily available on the market and do not cost more than non-compliant materials

Stationary/Area-wide Measures - Degreasing/Solvent Cleaning

- Schedule

District	Adoption	Implement
EDCAQMD	2011	2012

- Emission Reductions

VOC, tons per day		
2012	2018	2023
1.06	1.11	1.15

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Stationary/Area-wide Measures – All Other Coatings

- Baseline emissions in the Sacramento Region, in 2012
 - 1.2 tpd VOC
- Affected sources include
 - Manufacturers and distributors of paints and coating materials
 - Coating operations that are not otherwise captured under specific coating rules, including:
 - Glass coatings
 - Plastic coatings
 - Pleasure craft coating
 - Wood flat stock
 - Rubber
 - Miscellaneous Metal Parts and Products

Stationary/Area-wide Measures – Unspecified Coatings

- Proposed control measure will establish the following VOC standards:

- **General VOC content limit** **420 g/l**
- **Wood flat stock** **250 g/l**
- **Glass coatings**

One-Component	275 g/l
Two-Component	420 g/l
Mirror Backing, flow	500 g/l
Mirror Backing, roll	430 g/l
Optical	800 g/l
Shock-Free	360 g/l
Metallic	420 g/l

Stationary/Area-wide Measures – Unspecified Coatings

- **Plastic coatings**

General	340 g/l	Metallic	420 g/l
Primer for flexible	490 g/l	Extreme Performance	750 g/l
Color topcoat for flexible	450 g/l	High gloss	420 g/l
Base/Clear Coat for flexible	540 g/l	Optical	800 g/l
Camouflage	420 g/l		
Conductive	325 g/l		

- **Pleasure craft coating**

Extreme high gloss	490 g/l	Antifouling for aluminum	560 g/l
High gloss	420 g/l	Antifouling other	330 g/l
Pretreatment Wash Primer	780 g/l	Clear wood sealer	550 g/l
Finish Primer/surfacer	340 g/l	Clear wood varnish	490 g/l
High Build Surface primer	340 g/l	All other coating	420 g/l
Teak primer	775 g/l		

Stationary/Area-wide Measures – Unspecified Coatings

- Cost or Cost Effectiveness
 - Estimated overall cost effectiveness is \$1,000/ton - \$6,000/ton
- Schedule

District	Adoption	Implement
EDCAQMD	2007	2008

- Emission Reductions

VOC, tons per day		
2012	2018	2023
0.17	0.20	0.23

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Stationary/Area-wide Measures – Water Heaters

- Baseline emissions in the Sacramento Region, in 2012
 - 2.24 tpd NOx
- Affects:
 - Manufacturers and distributors of new devices
 - Commercial and industrial water heaters and boilers, and
 - Residential water heaters
 - New or replacement fuel fired water heaters installed in:
 - Homes
 - Hospitals
 - Schools
 - Laundering facilities
 - Apartment buildings
 - Office buildings
 - Swimming pools
 - Restaurants

Stationary/Area-wide Measures – Water Heaters

- Detailed Measure Description
 - Establish point of sale requirements for water heaters <1 mmBTU/hr
 - <75,000 Btu/hr – 20 ppm/40 ppm
 - 75,000 – 400,000 BTU/hr – 40 ppm
 - 400,000 – 1 mmBTU/hr – 30 ppm
- Cost or Cost Effectiveness
 - Estimated overall cost effectiveness is minimal - \$2,400/ton - \$16,000/ton

Stationary/Area-wide Measures – Water Heaters

- Schedule

District	Adoption	Implement
EDCAQMD	2015	2016

- Emission Reductions

NOx, tons per day		
2012	2018	2023
0.47	1.31	1.54

Regional List of Local Stationary/ Area-wide VOC Measures

Measure	SMAQMD Adoption	EDCAQMD Adoption	FRAQMD Adoption	PCAPCD Adoption	YSAQMD Adoption	VOC 2018
Architectural Coatings	2010	2010	<2012	2012	2010	1.27
Automotive Refinishing	2008	-	2016	2015	2008	0.28
Degreasing/Solvent Cleaning	2007	2011	<2012	-	2007	1.11
Graphic Arts	-	-	-	-	2008	0.08
Natural Gas Processing	2008	-	-	-	-	0.12
Unspecified Coatings	2008	2007	-	-	-	0.20
Total VOC Emission Reduction Benefits, tons/day						3.06

Regional List of Local Stationary/ Area-wide NOx Measures

Measure	SMAQMD Adoption	EDCAQMD Adoption	FRAQMD Adoption	PCAPCD Adoption	YSAQMD Adoption	NOx 2018
Asphalt Concrete	2010	-	-	2013	-	0.18
Boilers, Steam Generators and Process Heaters	-	-	-	-	2007	0.08
IC Engines	2008	-	2010	-	2009	0.15
Water Heaters	2008	2015	2016	2015	2008	1.31
Total NOx Emission Reduction Benefits, tons/day						1.72

Questions and Comments

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