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ISSA
SCHC: Spring 2015 Meeting

Comparing California and Federal VOC Regulations

Overview

- Background
 - § Why and How VOCs are Regulated in the U.S.
 - § State and Federal VOC Regulations
- California and Federal VOC Regulations
 - § Consumer and Institutional Products
 - § Similarities and Differences
- Discussion / Q & A



- ; ISSA: Non-Profit Trade Association
- ; Institutional and Industrial Cleaning Industry
- ; Over 7,000 Members
 - § Manufacturers
 - § Distributors
 - § Contract Cleaners
 - § In-House Cleaning Service Providers
- ; www.issa.com

Why Are VOCs Regulated?

- ; Volatile Organic Compounds
 - § React to form ground level ozone
 - § Ozone is a health hazard (elderly, children)
- ; Consumer Products
 - § Significant Source of VOCs
 - § Includes institutional products
- ; Federal and State Regs
 - § Limit VOC content of consumer products

How VOCs Are Regulated?

- ; Patchwork of Federal and State VOC Regs
- ; Federal: Clean Air Act
 - § Sets acceptable ozone levels for states (NAAQS)
 - § National VOCs regs on products
- ; California: Clean Air Act
- ; Other States:
 - § Out of compliance with federal ozone levels
 - § Develop consumer regs to achieve compliance
- ; Federal Regs Apply Where No State Regs

Regulation of VOCs



Regulation of VOCs

- ; U.S. EPA
- ; Connecticut
- ; California
- ; Delaware
- ; Illinois
- ; Indiana
- ; Maine
- ; Maryland
- ; Massachusetts
- ; Michigan
- ; New Hampshire
- ; New Jersey
- ; New York
- ; Ohio
- ; Pennsylvania
- ; Rhode Island
- ; Utah
- ; Vermont
- ; Virginia
- ; Washington, DC

CA and Fed VOC Regs

- ; Compare CA and Fed VOC Regs
- ; CARB:
 - § Regulation for Reducing Emissions from Consumer Products
 - § "Consumer Product Regulations"
- ; FEDES:
 - § National Volatile Organic Compound Emission Standards for Consumer Products
 - § 40 CFR Subpart C of Part 59

CA and Fed VOC Regs

- Compare CA and Fed VOC Regs
- Other States
 - § Similar to California VOC regs
 - § Based on model legislation
 - § Ozone Transport Commission
 - § Lake Michigan Air Directors Consortium (LADCO)
- Federal Regs Apply Where No State Regs Exist

CA and Fed VOC Regs

- In General...
- CA and Feds Regulate VOCs by:
 - § Establishing VOC limitations on “consumer products”
 - § Prohibit sale / manufacture of products that exceed limits
- California VOC Regs
 - § Greater number of product categories
 - § More aggressive VOC limits
 - § Prohibit toxic / hazardous ingredients

CA and Fed VOC Regs

- Key Terms
 - § Consumer Products
 - § VOC
 - § VOC Limits

VOC Limits: Consumer Products

- Consumer Products
- CARB and Feds Definition: Similar
 - § Household and institutional products
 - § Cleaning products, adhesives, automotive care
 - § Others: Architectural coatings, antiperspirants

VOC Limits: Consumer Products

- Consumer Products
- CARB and Feds
 - § Exemption for “manufacturing use” only products
- Consumer Products ≠ Products that are
 - § Incorporated into, or
 - § Used exclusively in the manufacture or construction of the goods
 - § Example: Lubricant used on a printing press producing packaging

VOC Limits: Consumer Products

- Consumer Products
- Product Categories Listed or Covered
- Major Difference
 - § Feds: 21 major product categories
 - § CARB: 80+ product categories
 - § Only listed products are regulated

FEDS: Consumer Products

Federal Consumer Product Categories

- | | |
|-------------------------|-----------------------|
| ; Air fresheners | ; Glass cleaners |
| ; Auto windshield fluid | ; Hair sprays |
| ; Bathroom cleaners | ; Hair mousses |
| ; Carburetor cleaners | ; Hair styling gel |
| ; Dusting aids | ; Household adhesives |
| ; Engine degreasers | ; Insecticides |
| ; Fabric protectants | ; Laundry prewash |
| ; Floor polishes | ; Laundry starch |
| ; Furniture maintenance | ; Nail polish remover |
| ; General purpose | ; Oven cleaners |
| | ; Shaving creams |

CARB: Consumer Products

CARB Consumer Product Categories

- | | |
|-------------------------|-----------------------|
| ; Air fresheners | ; Glass cleaners |
| ; Auto windshield fluid | ; Hair sprays |
| ; Bathroom cleaners | ; Hair mousses |
| ; Carburetor cleaners | ; Hair styling gel |
| ; Dusting aids | ; Household adhesives |
| ; Engine degreasers | ; Insecticides |
| ; Fabric protectants | ; Laundry prewash |
| ; Floor polishes | ; Laundry starch |
| ; Furniture maintenance | ; Nail polish remover |
| ; General purpose | ; Oven cleaners |
| | ; Shaving creams |

CARB: Consumer Products

CARB Consumer Product Categories

- | | |
|-------------------------|-----------------------------|
| ; Adhesive remover | ; Electronic cleaner |
| ; Aerosol cooking spray | ; Fabric refreshener |
| ; Anti-static product | ; Fabric softener |
| ; Astringent/toner | ; Floor wax stripper |
| ; Auto polish | ; Footwear care product |
| ; Brake cleaner | ; General purpose degreaser |
| ; Bug and tar remover | ; Graffiti remover |
| ; Carpet cleaner | ; Heavy duty hand cleaner |
| ; Disinfectant | ; Insect repellent |
| ; Electrical cleaner | ; Multi-purpose lubricant |

VOC Limits: Consumer Products

CARB Consumer Product Categories

- | | |
|----------------------------|-------------------------------|
| ; Penetrant | ; Pressurized gas duster |
| ; Rust preventative | ; Rubber/vinyl protectant |
| ; Silicone based lubricant | ; Sanitizer |
| ; Metal polish, cleaner | ; Sealant, caulking |
| ; Motor vehicle wash | ; Spot remover |
| ; Multi-purpose solvent | ; Temporary hair color |
| ; Odor remover | ; Tire, wheel cleaner |
| ; (Oven) & grill cleaner | ; Toilet, urinal care product |
| ; Paint remover, stripper | ; Undercoating |
| ; Paint thinner | ; Windshield water repellent |
| ; Personal fragrance | ; Wood cleaner |

VOC Limits

- CARB and Feds: Establish VOC Limits
 - § Listed product categories
 - § Prohibit sale/manufacture of products that exceed limits
- VOC Limits: Percent VOC by Weight
 - § www.issa.com/vocsum
- Noncompliant Product:
 - § Reformulate, or
 - § Stop Sale

What is a VOC?

- CARB: Any compound containing at least one atom of carbon
 - § Examples: butanol, terpenes, glycol ethers
- Consistent with FEDS

VOC Exemptions

- CARB and Feds: Specific Substances Excluded
 - § Determined not to contribute to ground level ozone
 - § Methane, ethane, methyl acetate, etc.
- Low Vapor Pressure VOCs
 - § Vapor pressure less Than 0.1 Hg at 20 °C
- Fragrances up to 2%

VOC Content

- Calculation of VOC Content
 - § $(\text{Total VOCs} - \text{Exempt VOCs}) \times 100 / \text{Total weight}$
 - § Percent of total weight VOC content
- If Covered Product Exceeds VOC Limit:
 - § Reformulate to bring within VOC limit
 - § Stop manufacture and sale

VOC Limits and Dilutable Products

- Products Intended to be Diluted with Water
 - § VOC limit applies “minimum recommended dilution” on label
 - § Dilution at which maximum amount of product present
 - § Does not include recommended dilution for incidental use such as for stubborn stains...
- CARB and Feds: Consistent

Most Restrictive Limit Applies

- Products that Meet More than One Category
 - § CARB: Most Restrictive Limit applies
 - § i.e., lowest VOC limit shall apply
 - § DNA to general purpose cleaners, insecticide foggers
 - § Feds: No comparable provision

Product Dating

- § Clearly display day, month or year on which product was manufactured; or
 - § Code indicating such date
 - § CARB and Feds consistent
- § YY DDD
 - § YY = 2 digits representing year; DDD = day of year

Product Dating

- § Bottom of container ok
 - § Legible without removing packaging
- § Observable without disassembling package

Sell Through Periods

- Non-Compliant Products
 - § Manufactured prior to effective date
 - § Exceed VOC limits
- CARB:
 - § Can continue to sell up to 3 years after eff. date
 - § Provided comply with "product dating"
- FEDES:
 - § No limit on sell through
 - § Continue to sell until stock depleted

Sell Through Periods

- CARB
- Notification of Sell Through Period to Purchasers
 - § Selling to distributors, retailers
 - § Sell through period expires 6 mos or less from date product is supplied or sold
 - § Product is non-compliant (exceeds VOC limits)

CARB: Toxic Compounds

i CARB

§ Requirements limiting the use of specific toxic compounds in specific consumer product categories

- Alkyl phenol ethoxylate (APE) surfactants
- Para-dichlorobenzene (PDCB)
- Methylene Chloride (MC)
- Perchloroethylene (PC)
- Trichloroethylene (TC)

i FEDS: No Comparable Provision

CARB: Toxic Compounds

APE Surfactants Prohibited: Product Categories

Product Category	Effective Date	Sell Thru Date
General Purpose Cleaner (non-aerosol)	12/31/12	12/31/15
General Purpose Degreaser (non-aerosol)	12/31/12	12/31/15
Glass Cleaner (non-aerosol)	12/31/12	12/31/15
Heavy Duty Hand Cleaner / Soap (non-aerosol)	12/31/13	12/31/16
Oven or Grill Cleaner	12/31/12	12/31/15

CARB: Toxic Compounds

PDCB Prohibited: Product Categories

Product Category	Effective Date	Sell Thru Date
Air Freshener (solid)	12/31/05	12/31/06
Toilet / Urinal Care Products	12/31/05	12/31/06

CARB: Toxic Compounds

MC, PC, TC Prohibited: Product Categories

- ; Adhesives
- ; Adhesive removers
- ; Automotive care
- ; Bathroom and tile
- ; Carpet/upholstery
- ; Electrical cleaners
- ; Electronic cleaners
- ; Fabric protectant
- ; Footwear / leather care
- ; General purpose cleaner
- ; General purpose degreaser
- ; Graffiti remover
- ; Lubricants
- ; Multi-purpose solvent
- ; Oven, grill cleaner
- ; Paint thinner
- ; Pressurized gas duster*
- ; Sealant, caulking cmpd

*TC not prohibited

CARB: Toxic Compounds

MC, PC, TC Prohibited: Product Categories

Product Category	Effective Date	Sell Thru Date
Anti-Seize Lubricant	12/31/13	12/31/16
Cutting or Tapping Oil	12/31/13	12/31/16
Gear, Chain or Wire Lubricant	12/31/13	12/31/16
Rust Preventative Lubricant	12/31/13	12/31/16
Silicone Based Multi-Purpose Lubricant	12/31/12	12/31/15
Metal Polish or Cleaner	12/31/12	12/31/15
Spot Remover	12/31/12	12/31/15
Wasp or Hornet Insecticide	12/31/13	12/31/16

CARB: Global Warming

- CA Global Warming Solutions Act of 2006
 - § Fights climate change by reducing greenhouse gas emissions
 - § Carbon dioxide, methane, nitrous oxide, sulfur hexafluoride
 - § Hydrofluorocarbons
 - § Perfluorocarbons
 - § Implemented through CA Consumer Prod Regs

CARB: Global Warming

Compounds with GWP \geq 150 : Prohibited

Product Category	Effective Date	Sell Thru Date
Aerosol Adhesives		
*Mist Spray	1/1/17	1/1/20
*Web Spray	1/1/17	1/1/20
*Screen Printing	1/1/17	1/1/20
Double Phase Aerosol Air Freshener	12/31/12	12/31/15
Flying Bug Insecticide	12/31/13	12/31/16

CARB: Global Warming

Compounds with GWP \geq 150 : Prohibited

Product Category	Effective Date	Sell Thru Date
Lubricant		
*Anti-Seize	12/31/13	12/31/16
*Cutting or Tapping Oil	12/31/13	12/31/16
*Gear, Chain or Wire	12/31/13	12/31/16
*Rust Preventative or Rust Control	12/31/13	12/31/16
Metal Polish or Cleaner	12/31/12	12/31/15
Multi-Purpose Solvent		
*Aerosol	1/1/16	1/1/19
*Non-Aerosol	12/31/10	12/31/13

CARB: Global Warming

Compounds with GWP \geq 150 : Prohibited

Product Category	Effective Date	Sell Thru Date
Paint Thinner		
* Aerosol	1/1/16	1/1/19
* Non-Aerosol	12/31/10	12/31/13
Pressurized Gas Duster	12/31/10	12/31/11
Spot Remover	12/31/12	12/31/15
Wasp or Hornet Insecticide	12/31/13	12/31/16

CARB: Additional Labeling

- ‡ Aerosol Adhesive
 - ‡ Adhesive Removers
 - ‡ Contact Adhesives
 - ‡ Electrical Cleaner
 - ‡ Electronic Cleaner
 - ‡ Energized Electrical Cleaner
 - ‡ Sealant or Caulking Compound (nonaerosol)
- § Applicable VOC standard expressed as a percentage by weight

What's Next?

- i FEDS:
 - § Products: Nothing on the Horizon
 - § NAAQS for Ozone (proposal)
- i CARB:
 - § 2013 Consumer and Commercial Products Survey
 - § Started: 9/1/14; Deadline: 3/1/15
 - § Deadline extended to April 1, 2015 (formulators)
 - § Deadline extended to July 1, 2015 (small biz)
 - 25 or less employees
 - § Mandatory: Responsible Party

What's Next?

- i CARB:
 - § 2013 Consumer and Commercial Products Survey
 - § Will inform next round of revisions
 - § In support of 2016 SIP
 - § Additional product categories, more aggressive limits
 - § Evaluate LVP exemption
 - § www.arb.ca.gov/consprod/regact/2013surv/2013main.htm

What's Next?

- ; Canada
- ; Volatile Organic Compound Concentration Limits for Certain Products Regulations
 - § January 2013: Consultation Document on Proposal
 - § Mid-2015: Proposed Regulations
 - § Modeled After California Consumer Product Regs

Additional Information

- ; Summary of Federal and State VOC Limits
 - § www.issa.com/vocsum
- ; Bill Balek, ISSA, bill@issa.com

Thank You!!

DISCUSSION

