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# COMAR 26.11.32 – Control of Emissions of Volatile Organic Compounds (VOC) from Consumer Products (CP)



AQCAC meeting – June 6, 2016

# Topics Covered

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- Action Overview
- CARB/OTC Rule process
- OTC Model Rule adoption and Regional Consistency
- Maryland Consumer Products proposed amendments
- Emission Reduction Benefits
- Economic Impact
- Regulation Timeline



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# Consumer Products Amendments

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- The purpose of this action is to amend existing regulations under COMAR 26.11.32.
- This action will establish VOC standards for eleven new consumer product categories and strengthen VOC standards for fourteen existing consumer product categories.
- The amendments are based upon the 2014 OTC Model Rule for Consumer Products.
- MDE has been actively working with OTC and stakeholders
  - Stakeholders supportive of this action
  - Several states have already adopted or are in process
  - Compliant consumer products are already available on the market
  - Positive environmental and health benefits

# Ozone Transport Commission (OTC)

- Maryland is a member state of the Ozone Transport Commission (OTC), an organization set up by Congress under the Clean Air Act (CAA) which is composed of 13 States (including D.C.) in the Northeast and mid-Atlantic regions.
- These States are generally in non-attainment of the National Ambient Air Quality Standards for ground-level ozone.
- The OTC develops model rules for the member States to use to reduce the emissions of ground-level ozone precursors.



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# CARB/OTC Rule Process

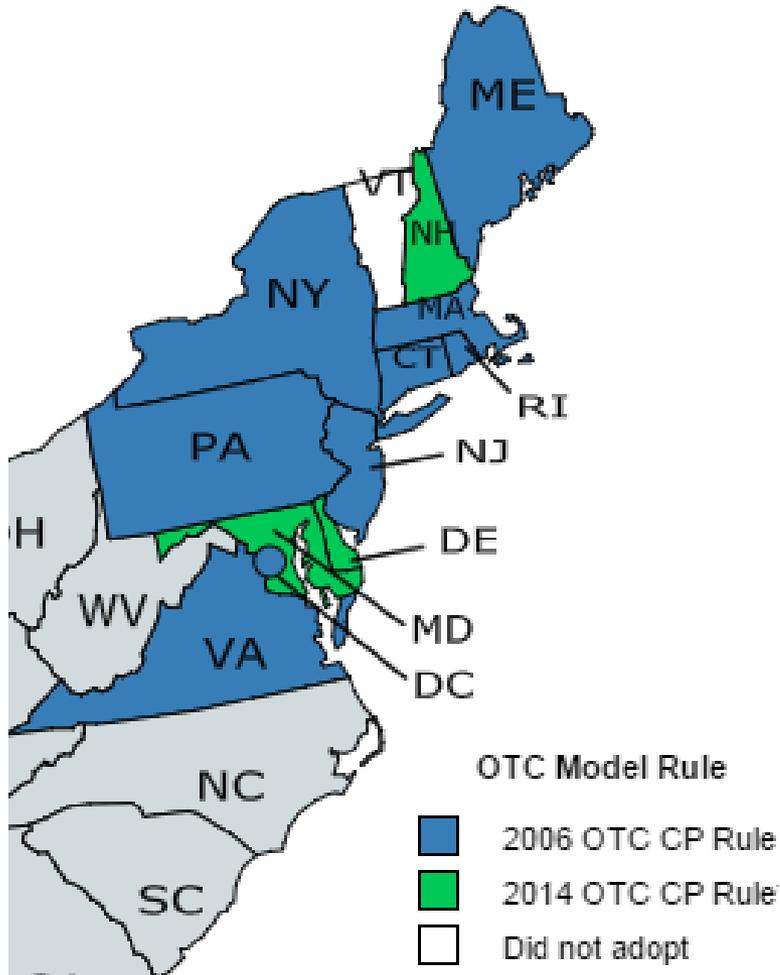
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- Adoption of OTC Model rules by member States ensures regulatory consistency throughout the region.
- OTC Consumer Products rules are based off of California Air Resources Board (CARB) rules.
- California Clean Air Act requires CARB to assure CP regulations are commercially and technologically feasible.
- CARB conducts surveys with manufactures to determine feasibility of reducing VOC emissions from CPs.



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# CP Regulation in OTC States



- Most OTC States have adopted 2006 update of OTC Model Rule (except VT)
- NH adopted 2014 OTC CP Rule in 2014
- DE recently adopted 2014 OTC CP Rule (effective February 11, 2016)
- Maryland proposing to adopt 2014 OTC CP rule in 2016
- OTC petitioned the EPA to update the 1998 federal rule to create consistent national standards
  - EPA has not taken any action



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# Background – MD Existing Regulation

- Applies to sale or manufacture of consumer products for use in Maryland
- MD Regulations COMAR 26.11.32 adopted in 2003 and updated in 2007
- Based on Ozone Transport Commission (OTC) model rules
- Regulations require consumer products to meet specific requirements:
  - VOC concentration limits for 80 categories and subcategories
  - Administrative requirements for labeling and reporting

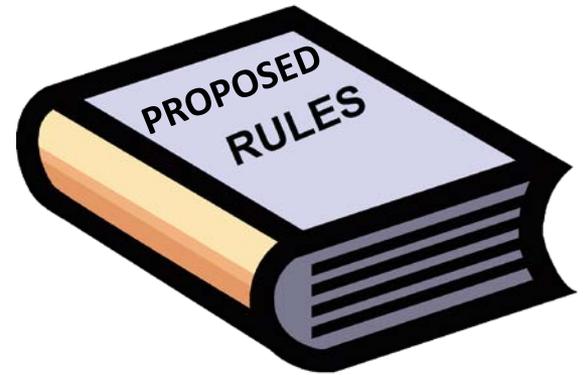


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# Maryland's Proposed Regulation

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- Based on 2014 OTC CP model rule
  - Developed using standards adopted in California in 2009
  - Revised 2012 OTC CP model rule
- Updates the current regulation 26.11.32
  - Refines definitions for certain CP categories
  - Establishes VOC standards for 11 new CP categories
  - Strengthens VOC standards for 14 CP categories
  - New requirements for multi-purpose solvents and paint thinners
- Part of Maryland State Implementation Plan (SIP) for VOC



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# Proposed Regulation - Applicability

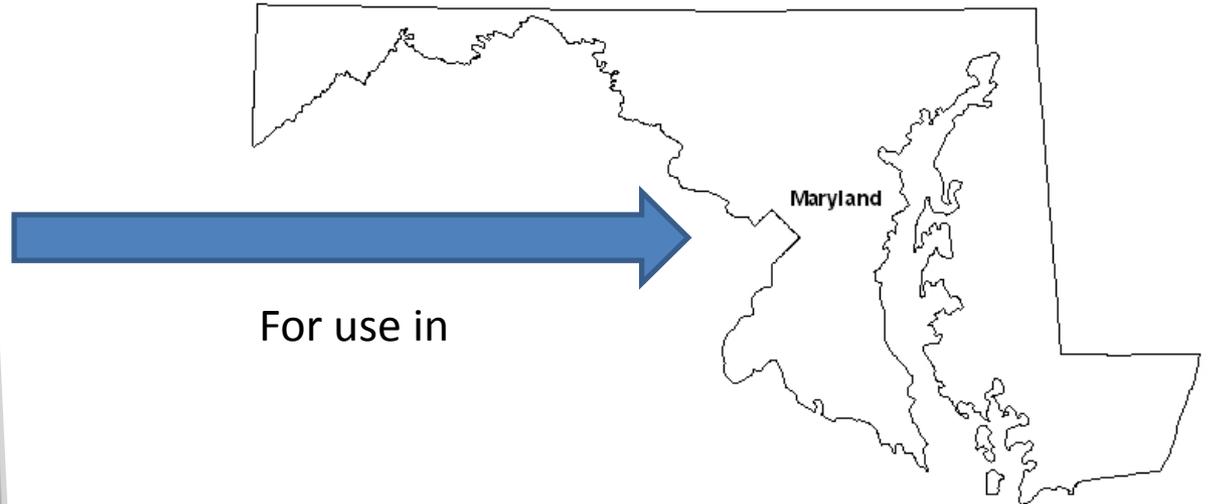
- Applies to any person who, on or after January 1, 2018....

✓ SELLS

✓ SUPPLIES

✓ OFFERS FOR SALE

✓ MANUFACTURES



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# Proposed Regulation - Exemptions

- Does not apply to...
  - Consumer products sold, supplied, offered for sale, or manufactured intended for shipment and use outside of the State; and if manufacturers or distributors have taken precautions to not distribute in the State
    - Other exemptions listed in Regulation .01, sections C – F.
  - Additional new exemption: “*Artist’s solvent/thinner packaged and sold in a container equal to or less than 34 fluid ounces*”
    - Artist’s solvent/thinner means any liquid product, labeled to meet ASTM D4236-94 (March 1, 2005), as amended, Standard Practice for Labeling Art Materials for Chronic Health Hazards, which is labeled to reduce the viscosity of, or remove, art coating compositions or components



# CP Categories and Standards

New Consumer Products Categories and VOC Standards*	
CP Category	Maximum VOC limit by weight
Dual Purpose Air Freshener/Disinfectant, Aerosol	60
Anti-static Product, Aerosol	80
Artist's Solvent/Thinner	3
Automotive Windshield Cleaner	35
Disinfectant, Aerosol	70
Disinfectant, Non-aerosol	1

\*as of January 1, 2018



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# CP Categories and Standards

New Consumer Products Categories and VOC Standards* (cont.)	
CP Category	Maximum VOC limit by weight
Multi-Purpose Solvent	3
Paint Thinner	3
Sanitizer, Aerosol	70
Sanitizer, Non-aerosol	1
Temporary Hair Color, Aerosol	55

\*as of January 1, 2018



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# CP Categories and Standards

## Revised Consumer Products Categories and VOC Standards\*

CP Category	<u>Current</u> Max VOC limit by weight	<u>Proposed</u> Max VOC limit by weight
Adhesive -Construction, Panel and Floor	15	7
Automotive Brake Cleaner <sup>1</sup>	45	10
Bathroom and Tile Cleaner, All Other Forms <sup>2</sup>	5	1
Carburetor or Fuel-Injection Air Intake Cleaner	45	10
Engine Degreaser, Aerosol	35	10
Floor Polish/Wax, Resilient Flooring Material	7	1
Floor Polish/Wax, Non-Resilient Flooring Material	10	1

\*as of January 1, 2018

<sup>1</sup>Category changed to Brake Cleaner

<sup>2</sup>Subcategory changed to Non-aerosol



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# CP Categories and Standards

## Revised Consumer Products Categories and VOC Standards\* (cont.)

CP Category	<u>Current</u> Max VOC limit by weight	<u>Proposed</u> Max VOC limit by weight
Furniture Maintenance Products, All Other Forms <sup>3</sup>	7	3
General Purpose Cleaner, Aerosol	10	8
General Purpose Degreaser, Aerosol	50	10
Laundry Starch/Sizing/Fabric Finish	5	4.5
Nail Polish Remover	75	1
Oven or Grill Cleaner, Liquid <sup>3</sup>	5	4
Shaving Gel	7	4

\*as of January 1, 2018

<sup>3</sup>Subcategory changed to Non-aerosol



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# General Requirements and Standards

- New Regulation .05-1 – *Requirements for Flammable and Extremely Flammable Multi-Purpose Solvent and Paint Thinner*
  - Can not be sold, supplied, manufactured, offered for sale in the State effective January 1, 2018



**UNLESS:**

1. Products contain less than 1 percent weight aromatic compound;
2. Product contains methylene chloride, perchloroethylene, or trichloroethylene in a combined amount equal to or less than 0.01% by weight; and
3. Products meet labeling requirements



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# Emission Reduction Benefits

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- Developed following the emission benefit methodology of CARB and OTC
- Total VOC reductions from OTC model rule = 63.8 tons/day in 2018, based on projected 2018 OTC population of 63.7 million
- Maryland population projection for 2018 = 6.3 million
- MD projected VOC benefits beginning in 2018 will be a reduction of 6.3 tons/day of VOC



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# Economic Impact

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- January 1, 2018 date will give manufacturers the needed time to reformulate coatings to make them compliant with the VOC content limits and make changes to product distribution channels.
- Vast majority of the consumer products affected by these amendments are already commercially available.



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# Economic Impact

- **Cost-effectiveness (CE)**, measuring dollars per unit of emission reduction from the regulation, is **\$667/ton VOC reduced**

$$CE_{2018} = CE_{2009} + (CE_{2009} \times CPI_{2018})$$

Where:

$CE_{2018}$  = Maryland cost effective projection for 2018 (\$667/ton VOC reduced)

$CE_{2009}$  = CARB cost effective calculation in 2009 (\$580/ton VOC reduced)

$$CPI_{2018} = CPI_{2009-2015} + CPI_{2016-2018}$$

Where:

$CPI_{2018}$  = Consumer Price Index for 2018 (0.15)

$CPI_{2009-2015}$  = Consumer Price Index for 2009-2015 (0.12)\*

$CPI_{2016-2018}$  = Consumer Price Index Projection for 2016-2018 (0.03)\*\*

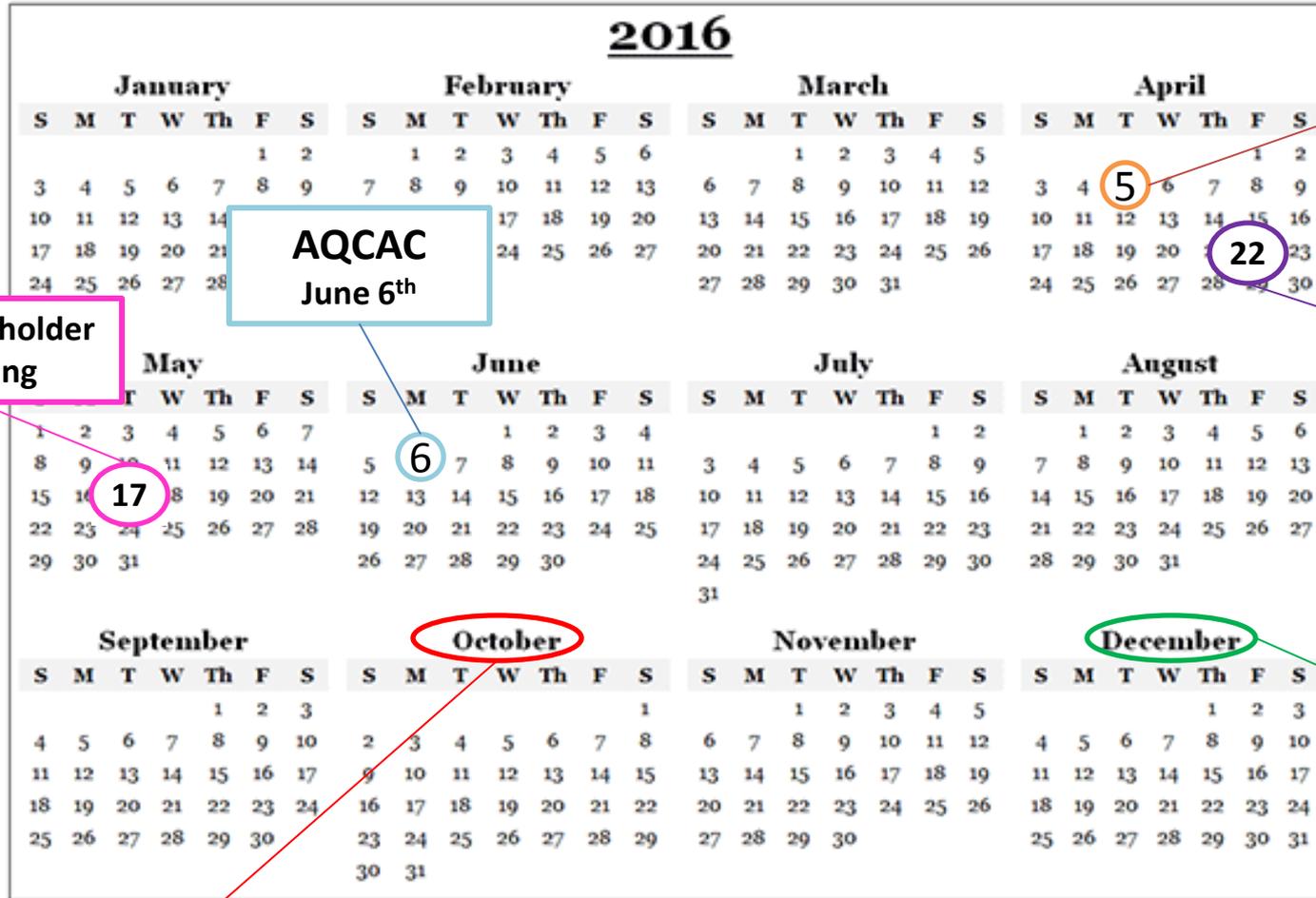
\*Information from the Bureau of Labor Statistics

\*\*Calculated using average CPI index increase



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# Regulation Timeline



1<sup>st</sup> Stakeholder meeting

AQCAC  
June 6<sup>th</sup>

2<sup>nd</sup> Stakeholder meeting

Stakeholder comments

PUBLIC HEARING

FINAL PUBLICATION

Regulation Effective Date: **JANUARY 1, 2018**

# Questions and Discussion

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