

PROPOSED AMENDMENTS TO THE CONSUMER PRODUCTS REGULATION AND METHOD 310



California Air Resources Board Meeting
May 25, 2018


Presentation Outline



Consumer Products Program Overview



Technical Assessment of the 10 Percent VOC Limit for Multi-purpose Lubricant Products



Proposed Amendments to the Consumer Products Regulation and Method 310



Staff's Recommendation

CONSUMER PRODUCTS PROGRAM OVERVIEW

LONG STANDING CARB CONSUMER PRODUCTS PROGRAM

Program
requirements
established in
1988

Requires
maximum
feasible
reduction in
VOC
emissions

Regulations
must be
necessary to
attain
ambient air
quality
standards

Regulations
must be
technologically
and
commercially
feasible

Must
preserve
product
forms

WHAT ARE CONSUMER PRODUCTS?



Types of products include:

Used by household and institutional consumers

Cleaning Products

Aerosol Paints

Antiperspirants and Deodorants

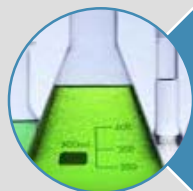
Household Pesticides

Personal Care Products

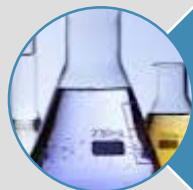
Automotive Specialty Products



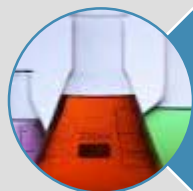
CONSUMER PRODUCTS CONTAIN VOCS



Active ingredients



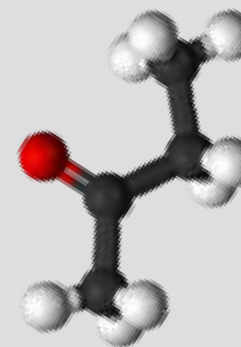
Solvents for active ingredients



Propellants



Fragrances



PROGRAM IMPLEMENTATION

Rule development and interpretation

Laboratory testing to determine compliance

Enforcement for noncomplying products

Review and approval of compliance flexibility options

Emissions inventory development

Assist other jurisdictions

Report to the Board

Establish mass-based limits

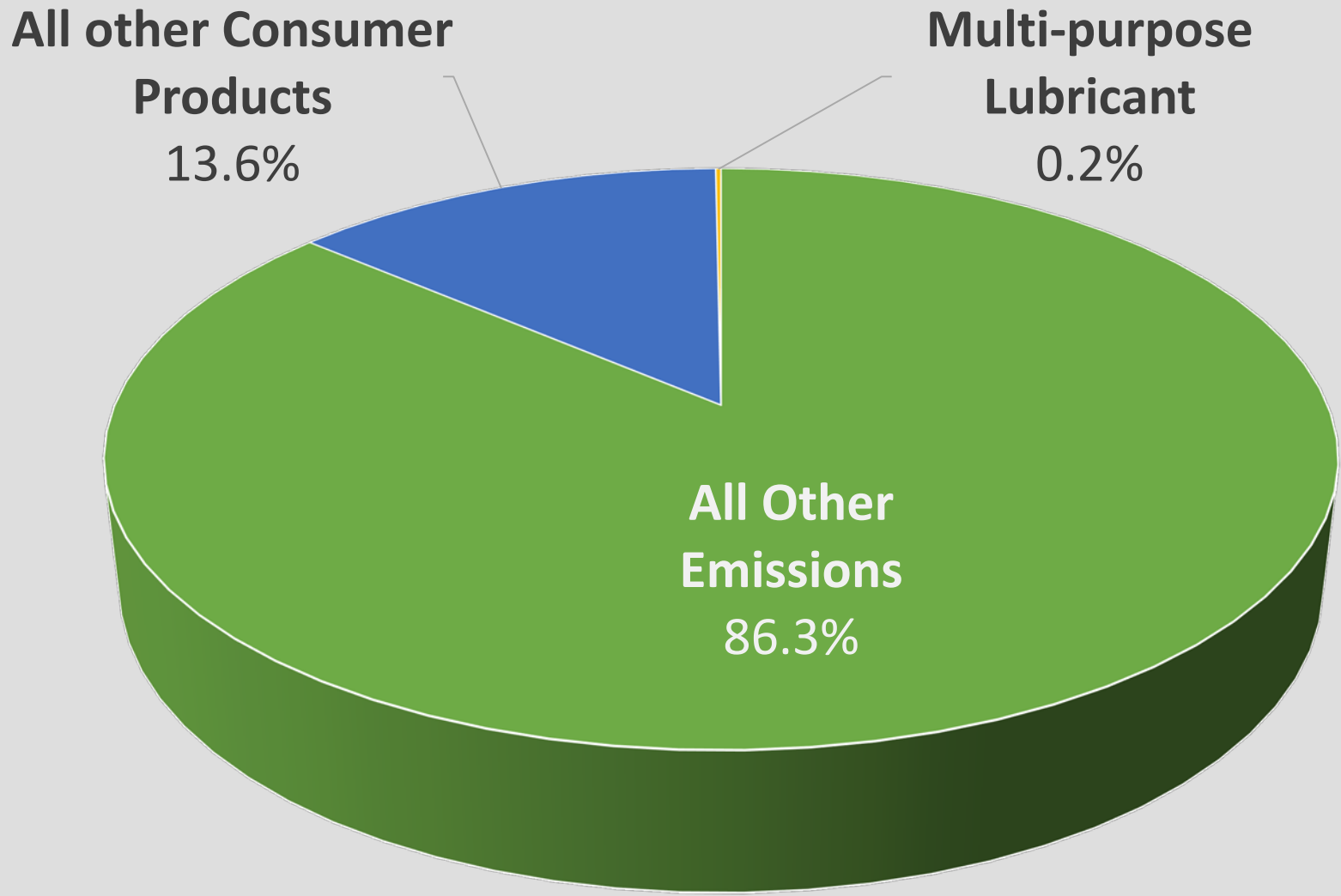
Establish reactivity-based limits

CONTROL APPROACHES

Prohibit certain Toxic Air
Contaminants

Prohibit compounds with high
Global Warming Potential
(GWP)

STATEWIDE ROG EMISSIONS

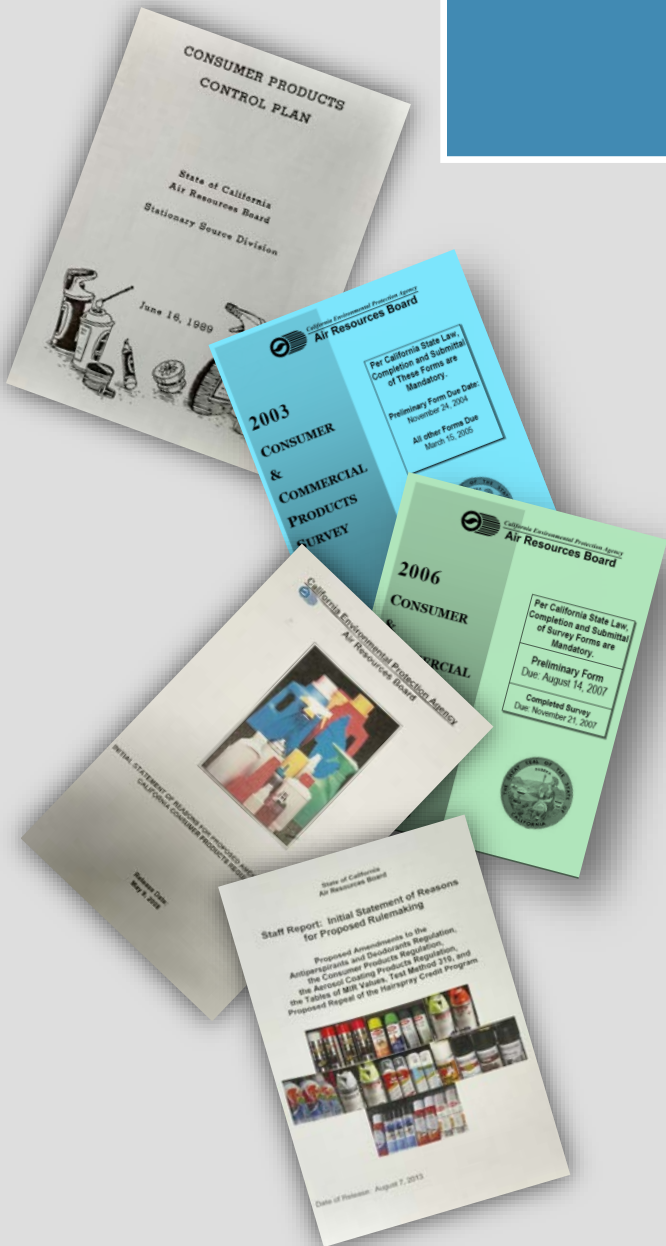


PROGRAM SUCCESS

CONTROL MEASURE	CATEGORIES REGULATED	EMISSIONS REDUCTIONS ACHIEVED
VOC limits Reactivity limits	~140 ~35	~220 tons per day
Toxic Air Contaminants*	~80	~13 tons per day
Greenhouse gases	~20	~0.23 million metric tons of carbon dioxide equivalents per year

***Methylene Chloride, Perchloroethylene, Trichloroethylene, Para-dichlorobenzene, Alkylphenol Ethoxylate Surfactants**

RECENT ACTIVITIES



2016 State Implementation Plan (SIP) Commitment

New measures for Board consideration in 2020

Multi-year Comprehensive Survey of Industry

Assessment of upcoming 10% Multi-purpose Lubricant VOC limit

TECHNICAL ASSESSMENT OF THE 10 PERCENT VOC LIMIT FOR MULTI-PURPOSE LUBRICANT PRODUCTS

REGULATORY HISTORY

50% VOC limit in 2003

Two technology forcing VOC limits

- 25% limit; effective 12/31/2013
- 10% limit; effective 12/31/2018

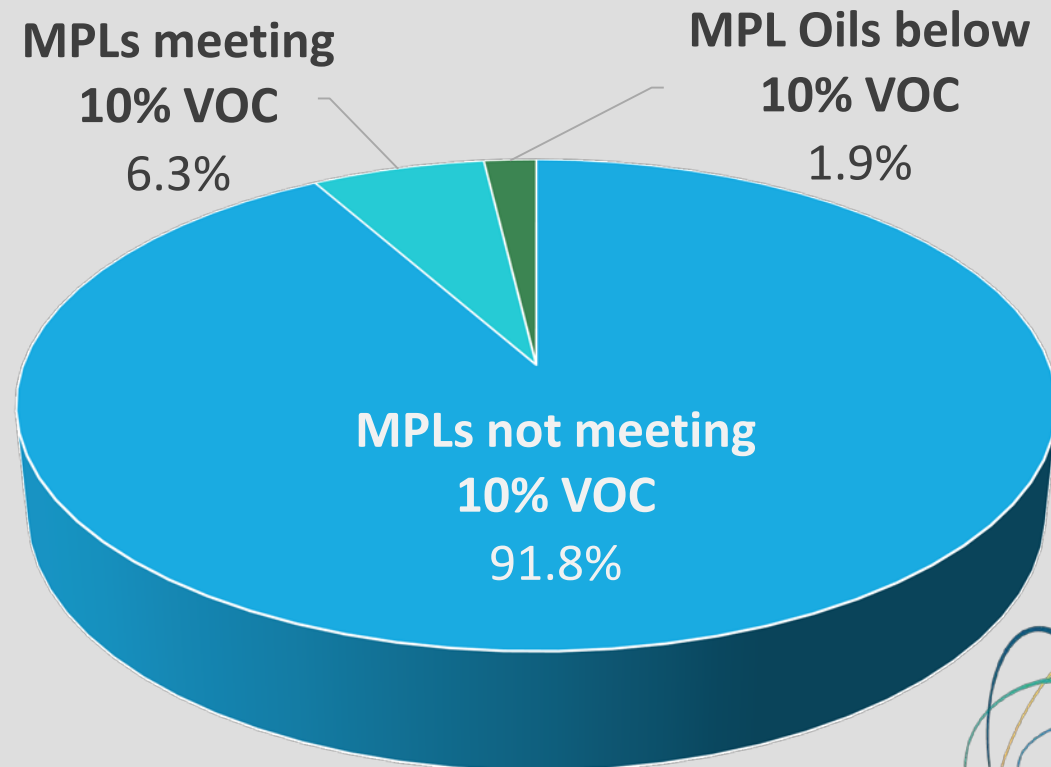
FINDINGS

The 10% VOC limit remains challenging

Wide range of reactivity and VOC content in this category

Anticipated air quality benefits have largely been achieved

Multi-Purpose Lubricant Market Share (% of Sales)



PRODUCT CHARACTERISTICS

PRODUCT	SALES WEIGHTED AVERAGE VOC%	SALES WEIGHTED AVERAGE OZONE FORMING POTENTIAL
10% VOC Compliant	0.6% VOC	0.49 g O ₃ /g prod
25% VOC Compliant	22.5% VOC	0.44 g O ₃ /g prod

PRODUCT COMPOSITION COMPARISON

INGREDIENT FOUND IN MULTI-PURPOSE LUBRICANT PRODUCTS	PRESENT IN 10% VOC LIMIT COMPLIANT PRODUCTS	PRESENT IN PRODUCTS THAT MEET THE ALTERNATE COMPLIANCE OPTION
CARBON DIOXIDE	X	X
GROUPED LVPs	X	X
HEAVY NAPHTHENIC MINERAL OIL		X
HYDROCARBON SOLVENT, BIN #11	X	X
HYDROCARBON SOLVENT, BIN #16	X	X
HYDROCARBON SOLVENT, BIN #19	X	
HYDROCARBON SOLVENT, BIN #24	X	
PERFLUOROPOLYETHER	X	
WATER	X	X
WHITE MINERAL OIL	X	

**PROPOSED
AMENDMENTS TO THE
CONSUMER PRODUCTS
REGULATION
AND METHOD 310**

ALTERNATE COMPLIANCE OPTION TO THE 10 PERCENT VOC LIMIT

Product weighted maximum incremental reactivity (PVMIR) limit of 0.45 grams ozone per gram product, and

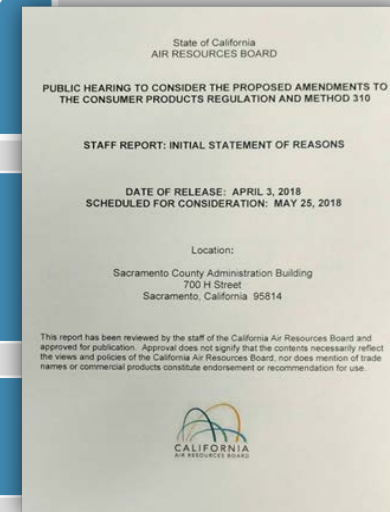
VOC limit of 25% by weight, and

Report formula of any product using alternate compliance option, and

Submit annual product sales for 3 years, and

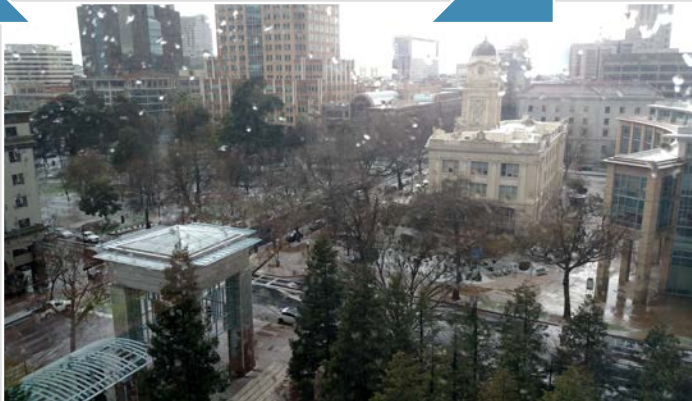
Keep up to 3 years of production batch records

Effective date July 1, 2019



GLOBAL WARMING POTENTIAL

Prohibit the use
of compounds
with
GWP values of
150 or greater



Minimize climate change
impacts

Effective date of July 1, 2019

ECONOMIC IMPACT



No anticipated increase in product price



Economic analysis to estimate cost



Flexibility desirable to industry

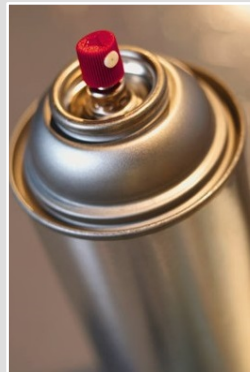
METHOD 310



Minor amendments to include updates to reference method citations and dates, for consistency



Grammatical corrections



Inclusion of new reference methods

PUBLIC PARTICIPATION

October 12, 2017
Public Workshop

Presented Technical
Assessment findings

Presented preliminary
concept of Alternate
Compliance Option

January 17, 2018
Public Workshop

Presented regulatory
language for Proposed
Amendments



STAFF'S RECOMMENDATION

Approve for adoption staff's proposal to amend the Consumer Products Regulation and Method 310

