



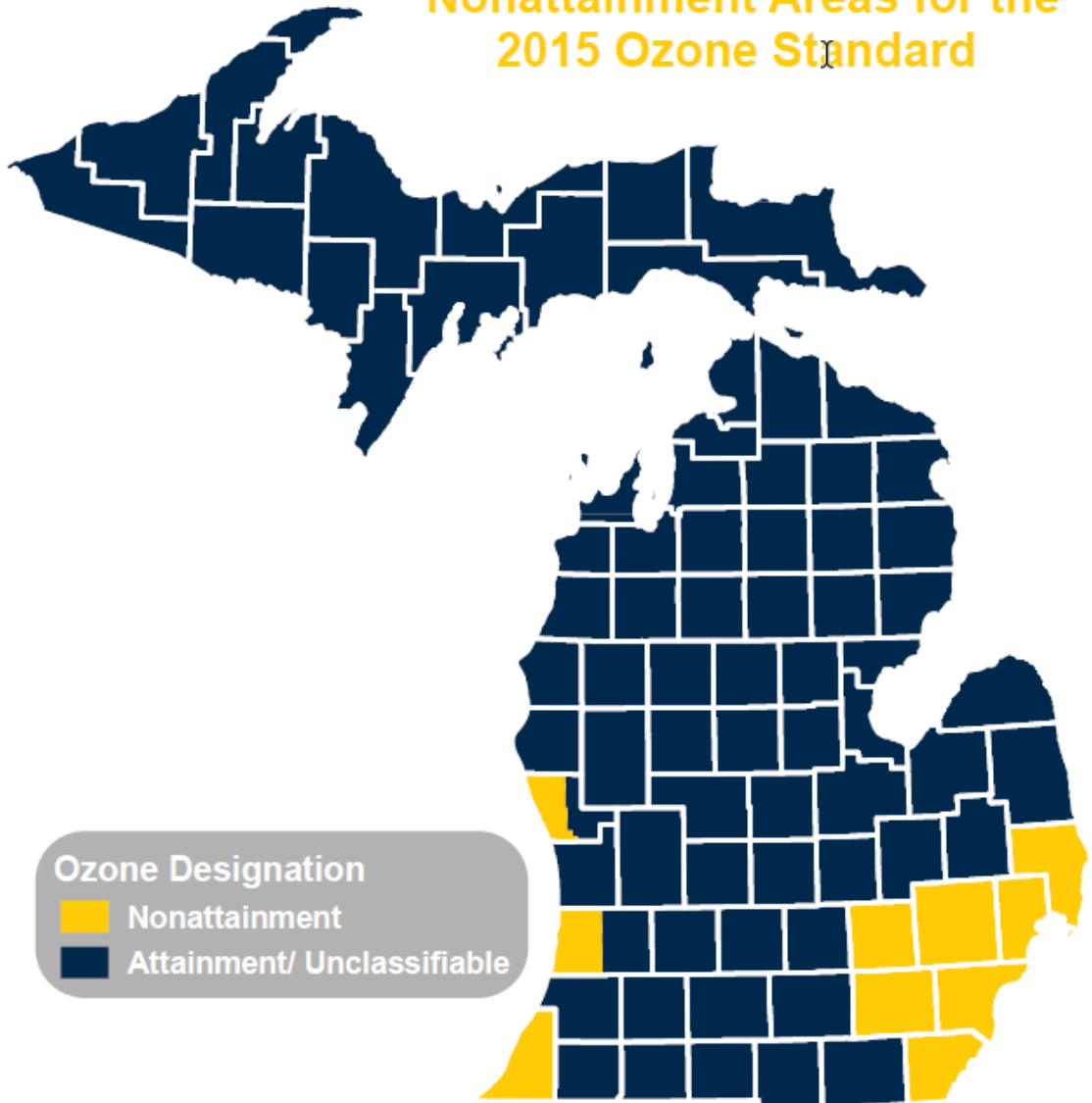
MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Ozone Nonattainment Rules: VOC/NO_x RACT and others

Marissa Stegman / Trace McDonald
Air Quality Division
SIP Development Unit

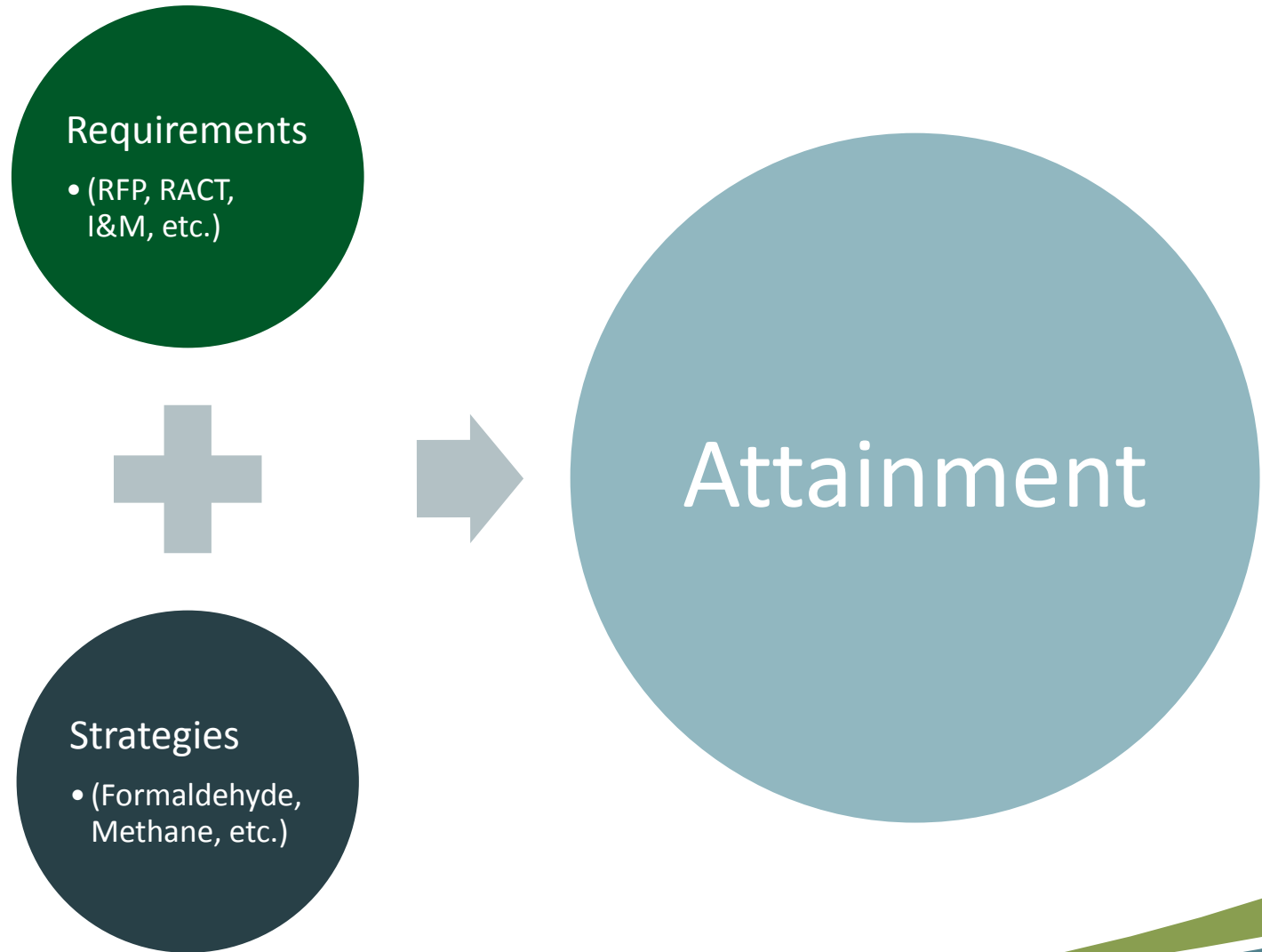
November 12, 2020

Nonattainment Areas for the 2015 Ozone Standard



Ozone Designation
■ Nonattainment
■ Attainment/ Unclassifiable

Goals



Basics – 3 Elements of a SIP

- RACT – Reasonably Available Control Technology (NO_x and VOC) (40 CFR 51.1312)

Most stringent emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility

- CTG's – Control Technology Guidelines (mandatory)
 - Major sources of either VOC or NO_x
 - ACT's – Alternative Control Techniques (not mandatory)
 - Example – Part 6 rules
- RACM – Reasonably Available Control Measures (NO_x and VOC) (40 CFR 51.1312)

Potential control measures for application to point, area, on-road, and non-road emission source categories that are technically and economically feasible, don't cause long term adverse impacts, are not absurd, unenforceable or impracticable, and advance the attainment date by at least one year.
 - Sources outside NAA (but still in Michigan)
- RFP – Reasonable Further Progress – VOC and/or NO_x reductions of 15% of baseline year emissions w/in 6 years (40 CFR 51.1310)

Current Efforts

Find Control Strategies

- Formaldehyde (part of RACT workgroup)
- Methane
- Intermodal Transport

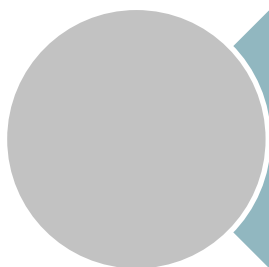
“Required” Rules

- RACT/RACM
 - CTG’s/ACT’s
 - Major sources
 - Working with stakeholders

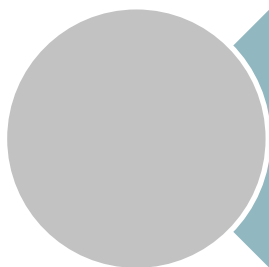
“Other” Rules

- Ozone Transport Commission (OTC) Rules
 - Consumer Products, AIM Coatings
 - Talking to companies about applicability/effectiveness
- NOx boiler tune-ups
- Control Strategies
- Suggestions?

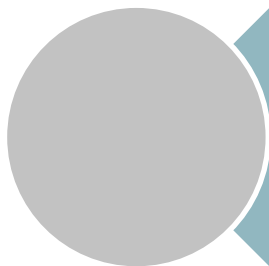
Areas Impacted by Potential Rules



All of Michigan?



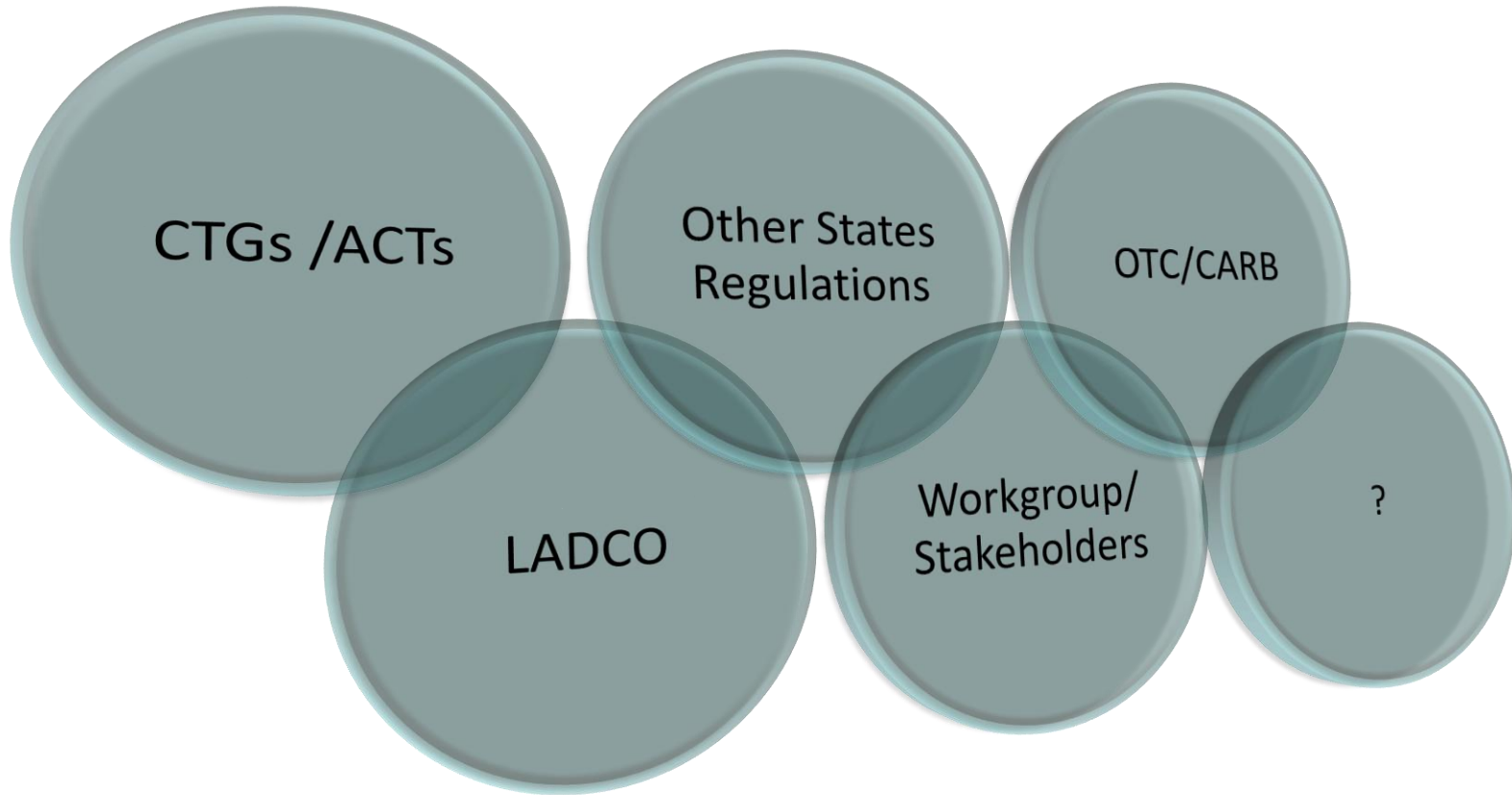
Nonattainment areas only?



Something in between?

- Lower half of Michigan, or other geographic area?
- Rule by rule decision?

Sources for Potential Rules



LADCO Precursor Emissions / Control Study

White Paper Topics

Locomotives

- Idling Reductions (switching/line-haul)
- Upgrade Engines in Switcher Locomotives Diesel-Electric Hybrid Locomotives

Harbor Craft

- Repower Engines
- Retrofits

Gasoline Nonroad (SORE & L&G)

- CARB Rules Opt-in

Onroad Vehicles

- Anti-idling for diesel and gasoline heavy duty vehicles
- Tampering Detection, and Enforcement

Diesel Nonroad

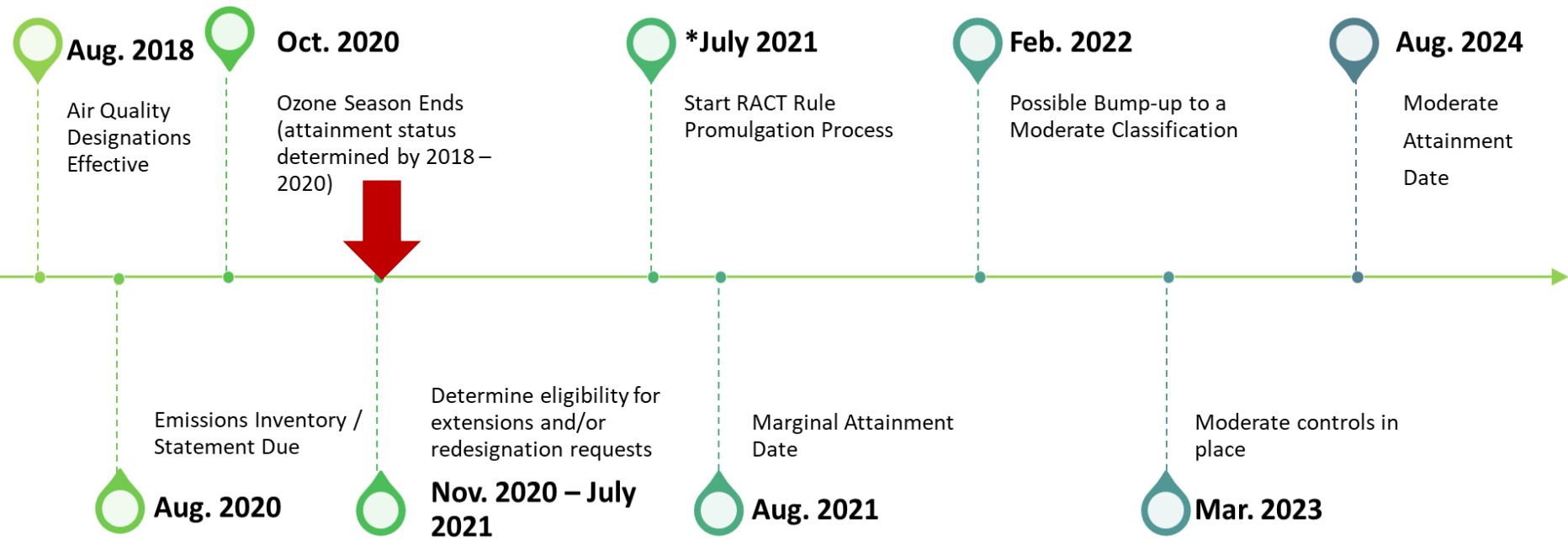
- Anti-idling Rule
- Fleet Modernization
- Construction fleet government contract requirements

RACT Requirements

	Non-Major Source	Major Source
CTG/ACT Source	Must Address *per CAA	Must Address *per CAA
Non-CTG/ACT Source	No Requirements	Must Address *per CAA

2015 Ozone SIP Timeline

**Dates are tentative and subject to change.*



RACT Timeline

Task	Timeline
Initial/Baseline RACT VOC and NOx Source Analysis and Draft Summary Report	March 2020
Discussions about geographic applicability	Aug 2020 <i>(will revisit)</i>
Evaluation of related Federal Standards and Other Applicable Requirements	October 2020
Address other major sources beyond ACT/CTG categories	December 2020
Determine rule necessity or negative declaration	May 2021
Creation of “discussion” rules to be reviewed by workgroup	June 2021
Formal Rule Promulgation Process <i>(Start July 2021*)</i>	March 2023

* All non-RACT rules will also need to begin the process by this date

Summary Spreadsheet

Category	MI Rule	Current Status	Stwd_tpy	Stwd_sources	NAA_tpy	NAA_sources	Comment	Appl. MI Rule	Appl. NESHAP	Appl. NSPS	Applicability Eval
Aerospace		Negative Declaration	31.86	1	0	0		-	CTG Stricter	-	
Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry (SOCMI)		Negative Declaration	0	0	0	0		-	Inconclusive	CTG not stricter	
Automobile & Light-Duty Truck Assembly Coatings	R 336.1610	Update	4,981.10	29	4,269.41	22		CTG Stricter	CTG not stricter	-	
Bulk Gasoline Plants	R 336.1606 - R 336.1609	Meets RACT	69.56	15	67.65	11					
Compound Leaks from Petroleum Refinery	R 336.1622	Potential Update*	201.62	6	201.62	5	Is update reliant on O&G CTG?				
Compound Leaks from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment	R 336.1631	Meets RACT	0	0	0	0					
Equipment Leaks from Natural Gas/Gasoline Processing Plants	R 336.1629	Meets RACT*	2.52	2	0.53	1	Double check meets RACT, if not then Negative Declaration.				
Fiberglass Boat Manufacturing Materials		New Rule	191.63	5	42.25	2		-	CTG not stricter	-	
Flat Wood Paneling Coatings	R 336.1620	Update	12.06	5	2.76	1		CTG Stricter	CTG not stricter	-	
Flexible Package Printing	R 336.1624	Update	108.89	22	35.75	7					
Hydrocarbons from Tank Truck Gasoline Loading Terminals		New Rule	80.8	12	38.8	5					
Industrial Cleaning Solvents		New Rule	293.74	158	119.71	70					
Large Appliance Coatings	R 336.1610	Update*	16.1	2	0	0	No sources but rule 610 would need to be updated due to Automotive coating update.	CTG Stricter	CTG not stricter	CTG stricter	

Discussion Rules

Round 1 - VOCs

Update to Current Rules

- Rule 610: Automobile & Light-Duty Truck Assembly Coatings
- Rule 621 & 632 Miscellaneous Metal and Plastic Parts Coating

New Rules

- Miscellaneous Industrial Adhesives

Negative Declarations

- Air Oxidation processes in SOCM I
- Pneumatic Rubber Tires
- Surface Coating: Shipbuilding and Ship Repair Facilities

Round 1 - NO_x

Negative Declarations

- Nitric and Adipic Acid Manufacturing Plants

Michigan Department of
Environment, Great Lakes, and Energy

800-662-9278
Michigan.gov/EGLE

Marissa Stegman
517-582-3601
stegmanm1@michigan.gov

Trace McDonald
517-582-3570
mcdonaldt@michigan.gov

Follow us at: Michigan.gov/EGLEConnect

