

OTC Stakeholder Meeting

April 4th, 2013
Washington, DC

Mobile Source Committee Update



Overview

1. Committee Work

1. Aftermarket Catalysts
2. Heavy Duty Diesel I/M
3. Ongoing Efforts

2. Federal Measure Update

1. Tier 3 Vehicle and Fuel Standards
2. Tier 4 Nonroad Engines

Aftermarket Catalyst Recommendation

EPA's policy was set in 1986 and has not been updated to reflect improvements in technologies & emission standards

OTC submitted a finalized recommendation for an updated catalyst program to EPA in April, 2011



Aftermarket Catalyst Model Rule

Goal: To develop an aftermarket catalytic converter model rule for OTR states to use

- Essentially provides the language necessary for a state to pursue adoption of the California aftermarket catalyst program
- Based on regulation implemented by New York

Aftermarket Catalyst White Paper

Goal: To provide background information for the states to use in their rulemaking efforts:

- Emission benefit analysis
- Cost information

Process:

- Analyzed 2010 I/M program data from MA, MD, NH, NJ, NY and PA
- Developed statistical model to estimate data for entire OTR
- Used test data from MECA studies to estimate emission benefits

Next Steps:

- Update cost information

Diesel I/M

Lead: NESCAUM Heavy Duty Workgroup

Goal: Proposal to USEPA for SIP Credit for I/M Programs

Results in Emission Reductions of:

- Oxides of Nitrogen (NO_x)
- Fine Particulate Matter (PM_{2.5})

Methodology:

- MOVES includes deterioration
- Deterioration mitigated through maintenance and deterrence through I/M
- Translates to emissions benefits

Activities:

- Gathered & analyzed studies that quantify effect of repairs
- Developed white paper
- Working with OTAQ to develop a project to gather more emissions data



Ongoing Efforts

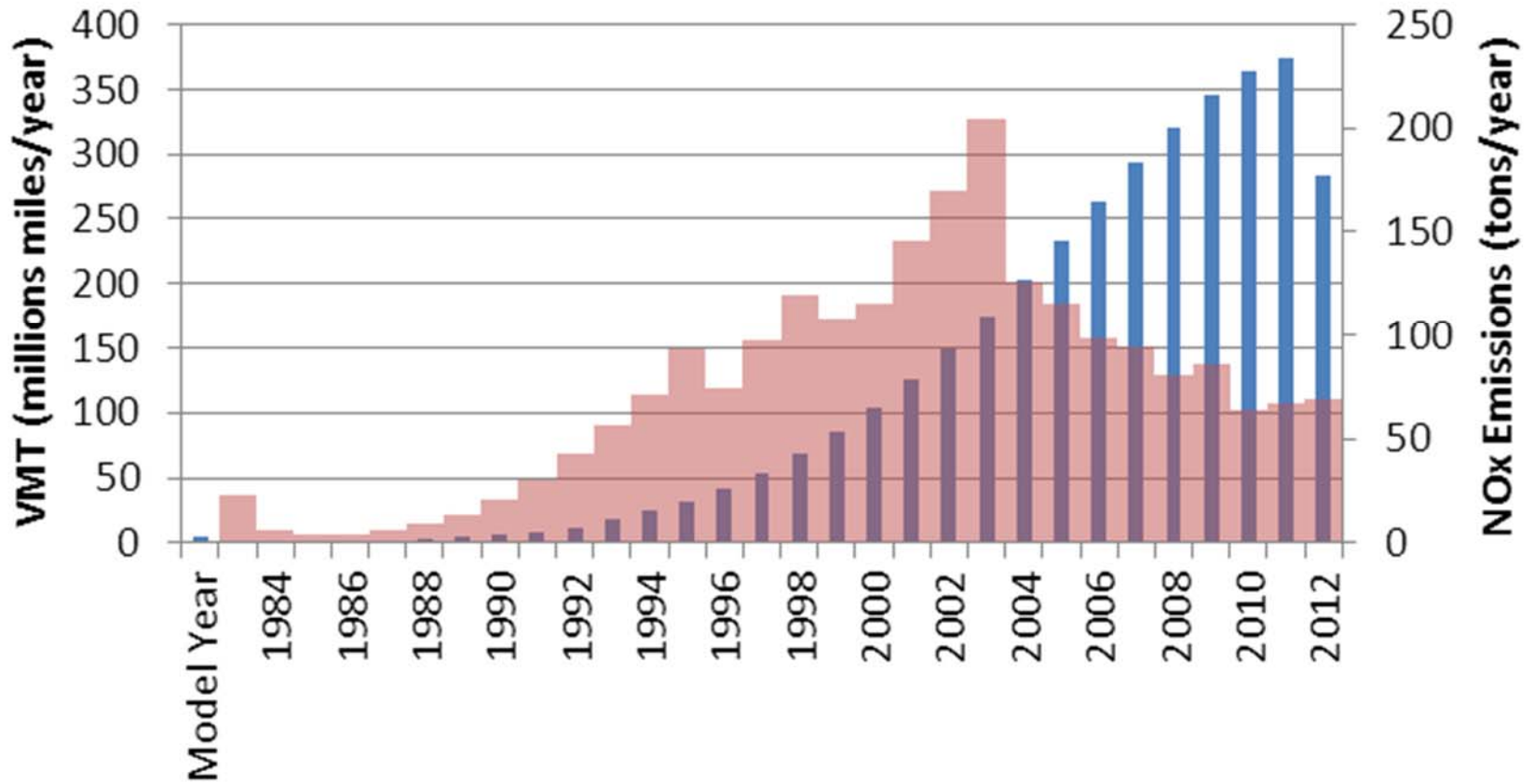
Pleasure Craft

Lightering

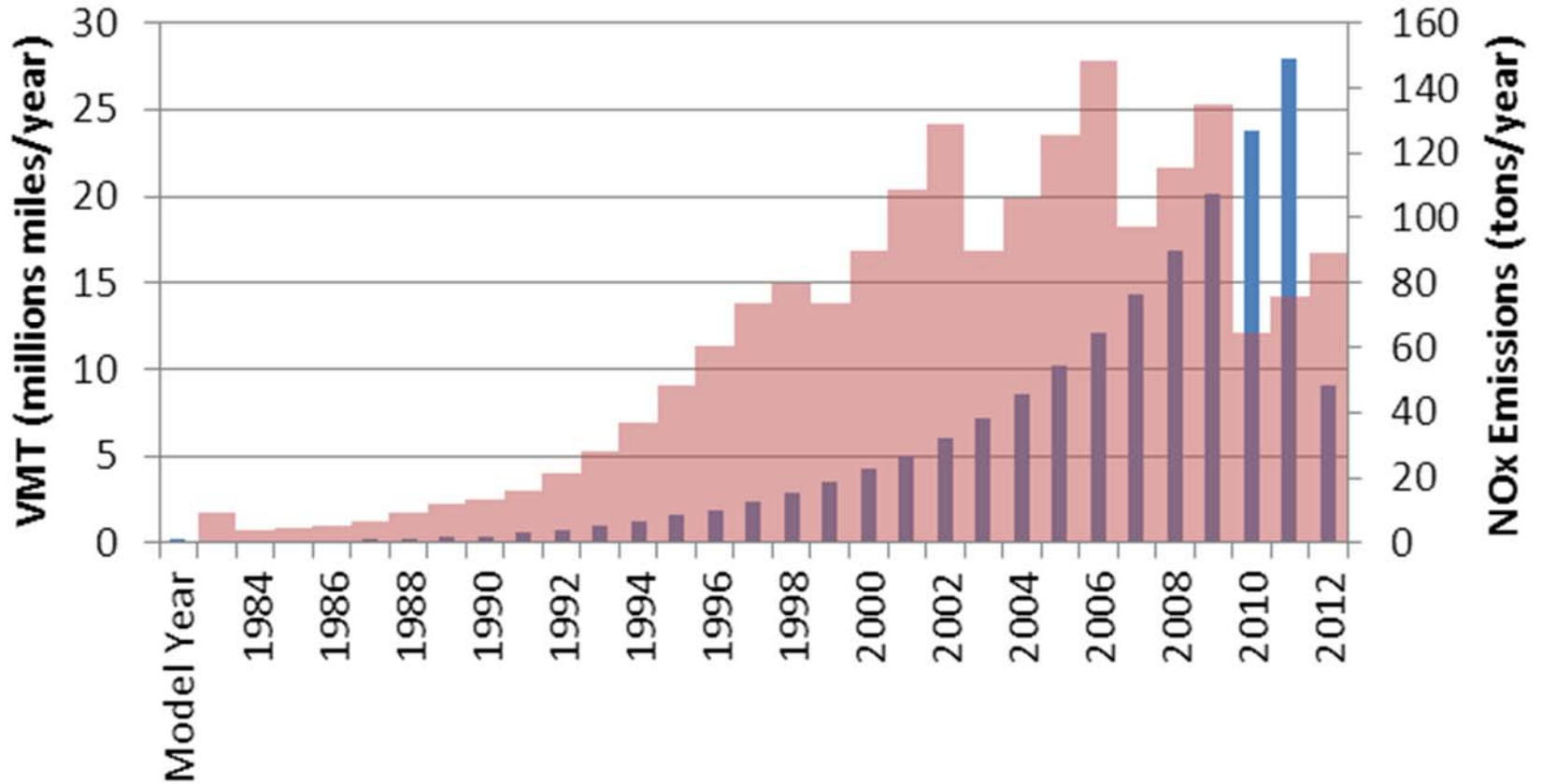
Emission Inventory Analysis

- MOVES
- Goods Movement



Light Duty Vehicles



Heavy Duty Vehicles



Status of OTC Federal Measure Asks

OTC Request	Action	Status
Mar 2009	Ships - Emission Control Area	
June 2009	Catalyst Replacements (April 2011 – OTC Program Design Recommendation)	
Nov 2009	Onroad Mobile Gasoline and Diesel Sources (November 2010 Statement on Tier 3)	$\frac{1}{2}$
	Locomotive Engines	$\frac{1}{2}$
	Marine Engines	$\frac{1}{2}$

Status of Federal Measure Commitments

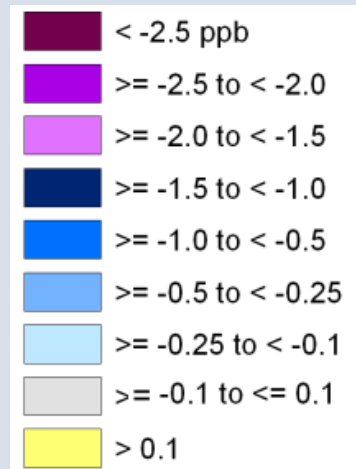
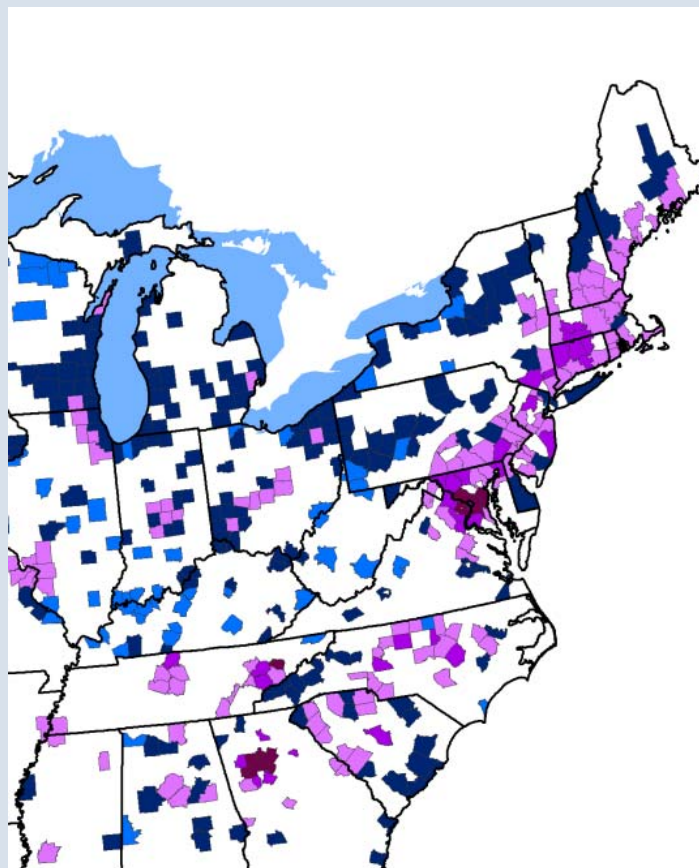
Date	Action	Status
Dec 2010	RFS2 Anti-Backsliding	?
2011	E15 Partial Waiver Decision MY 2001-2006 Motor Vehicles	✓
2012	Heavy Duty Truck Greenhouse Gas Standards	✓
2014	Clean Vehicles 75 ppb Ozone NAAQS Regulatory Impact Analysis	1/2

USEPA Tier 3/Low Sulfur Fuel Proposal

EPA proposed both vehicle emission standards and sulfur in fuel standards. Vehicle standards are essentially equivalent to the California LEV-III Program, enabling a “50-state car”.

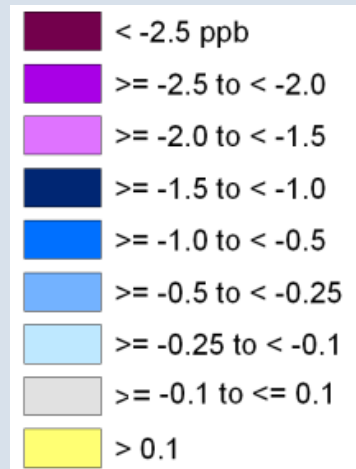
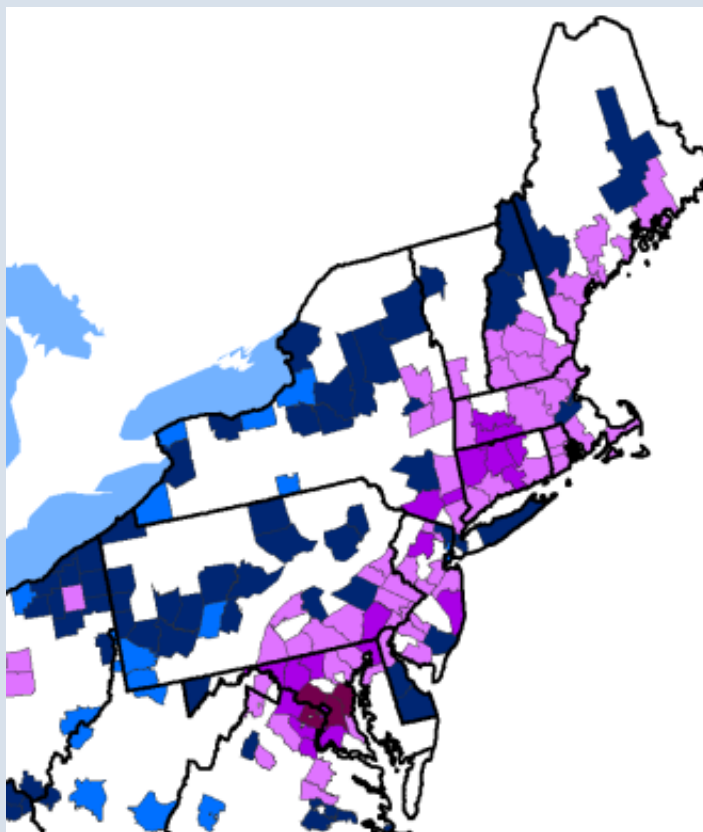
- Phase in beginning with MY 2017
- Applies to all light and medium duty vehicles and some heavy duty vehicles
- For example for light duty passenger vehicles:
 - Tailpipe emission standards provide:
 - NMOG+NO_x – 80% reduction from today’s vehicles
 - PM – 70% reduction from today’s vehicles
 - Evaporative emission standards ~ 50% reduction
- Test fuel update – to reflect in use fuels.

Ozone Benefits in 2030



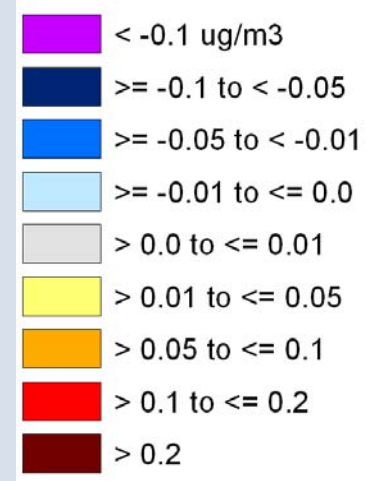
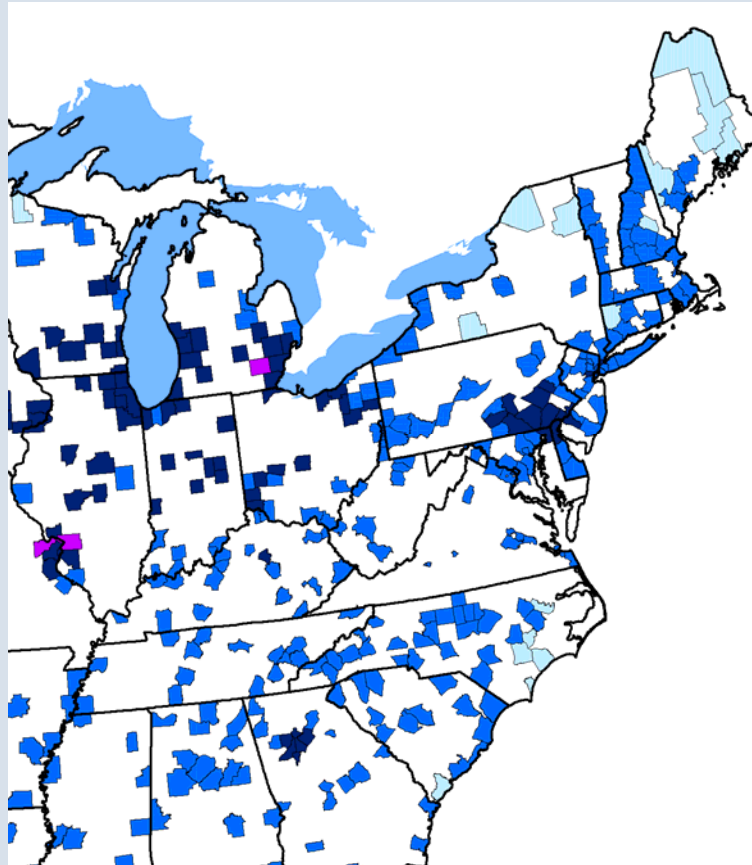
Difference in 8-hr Ozone DV -- 2030ctf minus 2030ct_ref

Ozone Benefits in 2030



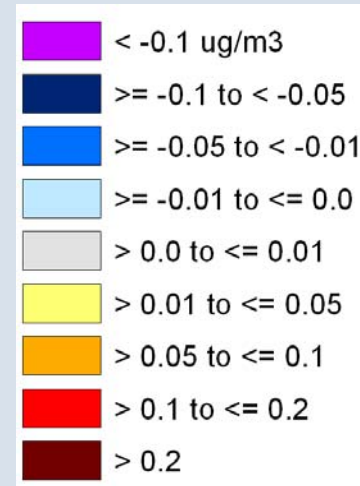
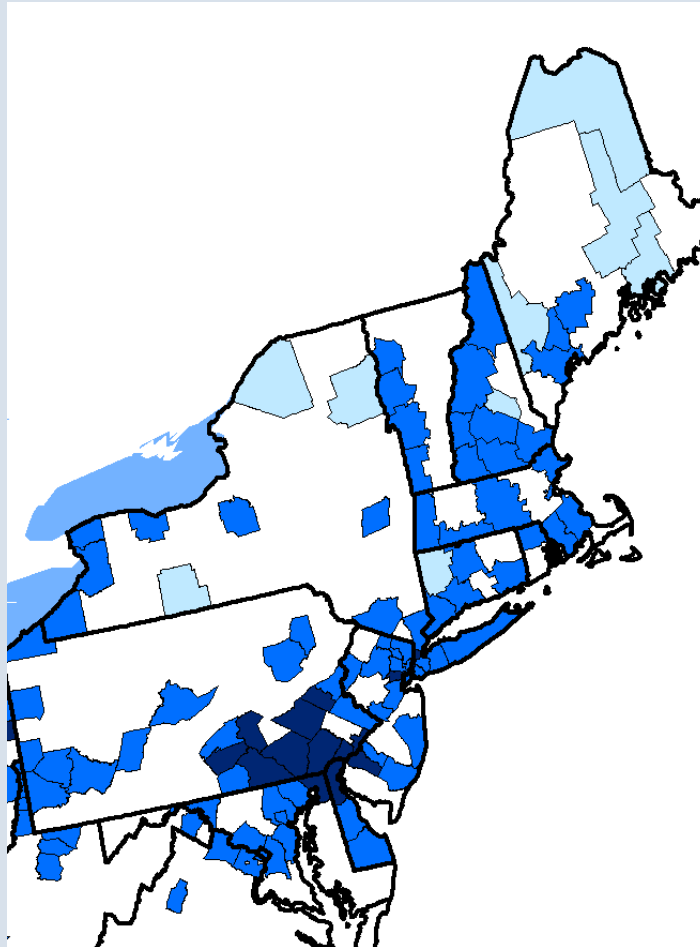
Difference in 8-hr Ozone DV -- 2030ctf minus 2030ct_ref

Annual PM_{2.5} Benefits in 2030



Difference in Annual PM_{2.5} DV -- 2030ctf_ctl minus 2030ctf_ref

Annual PM_{2.5} Benefits in 2030



Difference in Annual PM_{2.5} DV -- 2030ctf_ctl minus 2030ctf_ref

Tier 4 Nonroad Engines

USEPA rules require that replacement engines be of the highest Tier available (Tier 4 currently)

Issue: Tier 4 engines cannot fit into some older equipment, more recent engines could and would reduce emissions

USEPA is working on fix

Summary of the Next Steps

Aftermarket Catalytic Converters

- Update technical support document
- Model Rule Language

Heavy Duty Diesel I/M

- Continue collaboration with the USEPA on data needs and associated workplan

Federal Measures

Emissions Inventory Analysis w/ 2020 MOVES