Mobile Source Committee Update

OTC Committee Meeting

March 21st, 2012

Washington, DC

Overview

1. Nonroad Idling Model Rule
2. Heavy Duty Diesel I/M
3. Federal Measures
4. Aftermarket Catalysts
5. Ongoing Efforts

Nonroad Idling Model Rule

- Goal: Reduce emissions by decreasing unnecessary idling from nonroad engines
- Nonroad diesel engines are major sources of:
  - Oxides of Nitrogen (NO_X)
  - Fine Particulate Matter ($PM_{2.5}$)
  - Toxic Air Pollutants

- Many states prohibit unnecessary idling of highway diesel trucks, only a few (CT, MA, NJ, RI) prohibit it for non-road equipment

Nonroad Idling Emissions

- Different data sets produce a range of idling rates
- Using the range of rates, if all unnecessary idling in the OTR is reduced, the following emission reductions would result:

Data Source	Idling Rate	NOx(tpy)	HC(tpy)	PM(tpy)
John Deere	42%	8,188	4,172	803
CARB	7.2%	1,474	751	145

Nonroad Idling: Stakeholder Review

- Initial Model Rule posted on 9/2010
- Evaluated and incorporated stakeholder comments
- Drafted an accompanying guidance document
- Stakeholder Activities
  - Brought to Fall ’10, Spring ‘11 and Fall ‘11 Committee Meetings
  - Hosted stakeholder calls with:
    - Associate General Contractors (AGC)
    - RRI Energy
    - EMA, AGC, and other Manufacturers
    - Associate General Contractors of New Jersey (AGC-NJ)
    - Marcellus Shale Coalition and Shell
  - Incorporated previous stakeholder comments

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:
  - Gather & analyze studies that quantify effect of repairs
  - Develop white paper
  - Work with OTAQ
  - Determine if additional data is needed

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)	✗
	Locomotive Engines	½
	Marine Engines	½

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	✗

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
- Estimated reduction of 22,000 tons of NO_X in the OTR from the recommendation

Current Catalyst Program vs Rec.

Non-OBD Equipped	Current Program	Recommended Program
Warranty	25K, 5yrs.	50K, 5yrs.
Cost	$100	$200 - $300
Standard	Efficiency based (70-70-30)	Mass Based (grams/mile)
Certification/Applicability Procedures	Worst case vehicle	Worst case vehicles within 4 general classes of vehicles

OBD Equipped	Current Program	Recommended Program
Warranty	25K, 5yrs.	50K, 5yrs.
Cost	$100	$350 - $550
Standard	Efficiency based (70-70-30) and must meet 1 of 2 Options	Mass Based (grams/mile)
Certification/Applicability Procedures	Worst case vehicle	Aggregation of similar vehicles permitted for a limited worst case

Ongoing Efforts

- Pleasure craft
- Lightering
- Emission Inventory Analysis
  - MOVES
  - Goods Movement

Summary of the Next Steps

- Non-Road Idling
  - Additional stakeholder comments due Monday, April 9th
  - Recommend to the ADs for consideration by the Commission at the Annual Meeting
- Heavy Duty Diesel I/M
  - Present white paper at the ADs Meeting
- Federal Measures
- Emissions Inventory Analysis w/ 2020 MOVES