



Department of the Environment

Stage II Vapor Recovery

Time to Rethink the Program?



Air Quality Control Advisory Council
March 26, 2012



Topics

- Why are we reconsidering Stage II?
 - It appears that EPA’s recent analysis opens the door to eliminate the Stage II Vapor Recovery Program?
- What is Stage II Vapor Recovery and how are new “on-board” vapor recovery systems affecting the emission reductions from this program?
- What is MDE thinking?
- What are the key issues that need to be resolved?
- What is the proposed stakeholder outreach process and schedule?



What is EPA Proposing?

- On July 8, 2011, EPA released a policy called “Widespread Use for Onboard Refueling Vapor Recovery (ORVR) and Stage II Waiver”
- The Clean Air Act (CAA) allows EPA to waive Stage II Vapor Recovery Programs when these new on-board or “ORVR” systems are in widespread use in the vehicle fleet.
- This EPA action proposes June 30, 2013, as the date that ORVR will be in “widespread use” nationwide



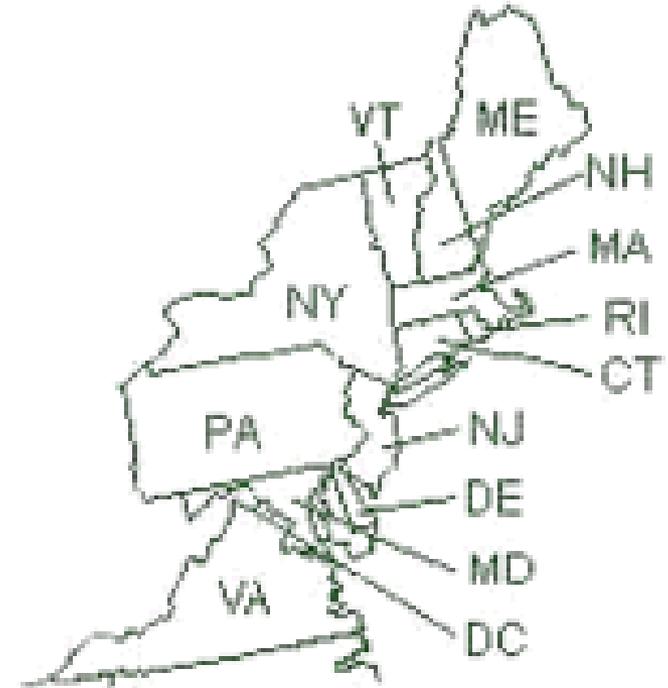
What Has EPA Said?

- EPA Administrator Blog, May 2011
 - "In the past, EPA has required gas stations to incorporate vapor controls on their pumps, but today's generation of vehicles already contain the technology for vapor recovery on the vehicle itself. The requirement for gas pumps has become redundant."
- EPA "Widespread Use" fact sheet
 - "This action also proposes that certain requirements for Stage II gasoline vapor recovery at service stations are waived as of June 30, 2013. This proposed waiver will allow many areas now requiring Stage II equipment at service stations to remove, or decommission, their Stage II systems.
 - EPA regards Stage II vapor recovery system decommissioning to involve equipment replacement and elimination of certain expenses associated with operating Stage II systems. EPA has estimated the national cost savings for facilities decommissioning Stage II vapor recovery systems based on this proposed rule to be over \$88 million annually".



Is It Harder to Phase Out Stage II in MD?

- Maryland is part of the 13 state “Ozone Transport Region” (OTR) established in the CAA
- States in the OTR must implement either Stage II or measures that achieve comparable emissions reductions
 - Maryland will have to find new measures to address any loss of emission reductions resulting from the repeal of Stage II
 - States outside of the OTR may not have this issue
- EPA will finalize guidance on repealing Stage II Vapor Recovery in the OTR this Spring



Has EPA Approved ...

... the Repeal of Stage II in Other States?

- The following states have adopted regulations to begin the transition away from Stage II
 - Maine
 - New Hampshire
 - Vermont
 - Connecticut is where we are
- EPA has not yet approved any of these regulations
- It's not clear how the special requirements for OTR states have been handled in ME, NH and VT



What is Stage II Vapor Recovery?

- Equipment that captures gasoline vapors at the pump
- MD has been doing Stage II Vapor Recovery since 1993
- During refueling, Stage II recycles gasoline vapors from the gas tank back into the underground storage tank
- In the late 90s, the Stage II program reduced Volatile Organic Chemical (VOC) emissions by about 8 tons per day
 - This was a relatively large reduction



What is ORVR?

- A gasoline vapor recovery system inside the car
- Started with certain 1998 model year vehicles, and is now included in almost all vehicles as of model year 2006
- ORVR recycles vapors within the vehicle
- Captured vapors are used as fuel when the engine is started



Are Stage II and ORVR Compatible?

- No
 - In Maryland, most Stage II systems are incompatible with ORVR
- When ORVR and the Stage II systems we have in Maryland operate together, a reduction in benefits occurs
- Benefit reduction can be up to a 10 percent decrease (loss of benefit) from what either system would achieve alone



When Will The Net Reductions Go Negative?

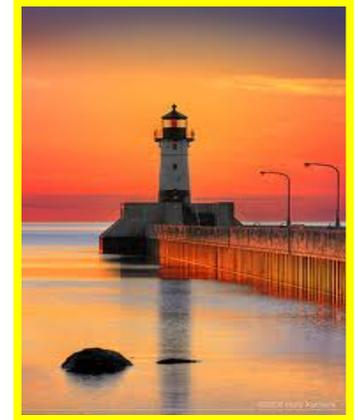
- EPA projects that the amount of reductions achieved by ORVR alone would equal the amount of reductions achieved by Stage II for the fleet of gasoline vehicles when about 77% of the fleet is equipped with ORVR
 - This will occur in 2013, nationally
 - It may be later in Maryland
- Around 2013, there will be a net loss in emission reduction benefits because of the Stage II/ORVR incompatibility
 - This is just for cars





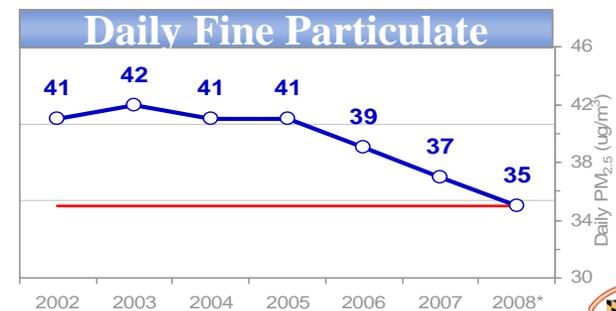
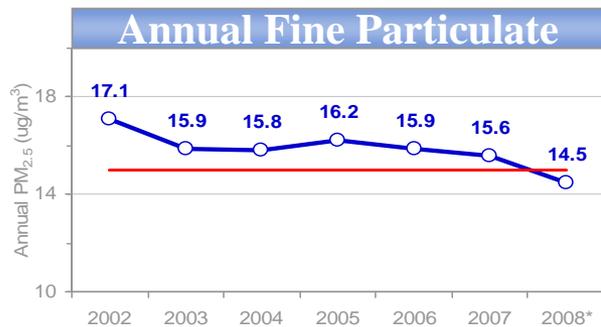
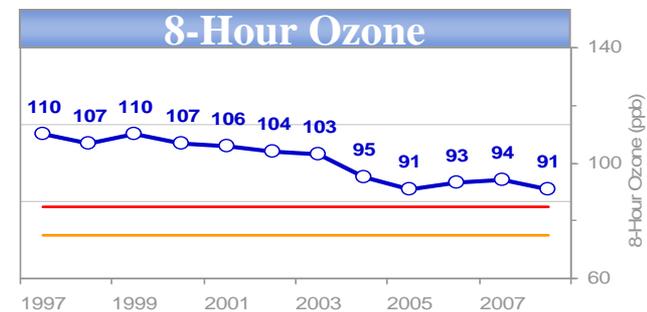
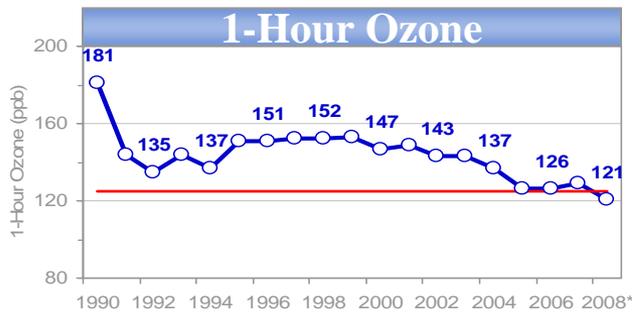
What Do You Mean By “Just For Cars”?

- There are other vehicles and equipment that refuel at service stations
 - Large trucks, motorcycles, gas cans, lawn and garden equipment, etc.
 - Stage II would still provide VOC emission reduction benefits during refueling of these vehicles and equipment
- MDE is still evaluating when the net disbenefit begins
 - This happens when the emission reduction disbenefit for cars is larger than the benefit for other vehicles & equipment



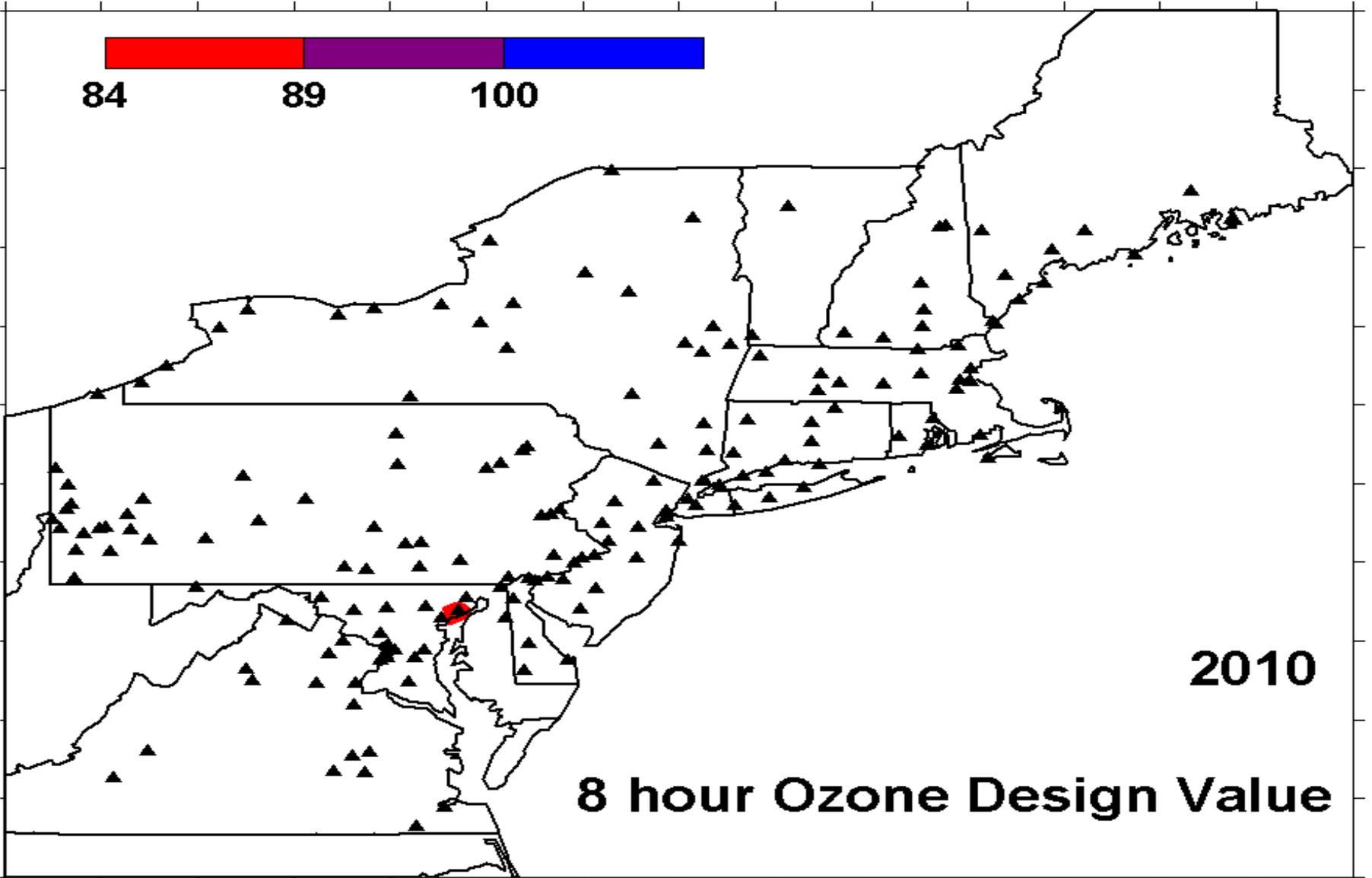
So ... How Clean is Our Air?

- Air pollution levels continue to drop
- Emission control programs are working
- Controls have been equitably spread across all sectors





More Good News – Sort Of





What About the New Ozone Standard?

- In May of 2012, EPA will finalize area designations for the new 75 ppb ozone standard
- Large parts of Maryland continue to measure levels above this standard
 - Monitors in the Washington/Baltimore CSA (Consolidated Statistical Area) are measuring the highest ozone in the east
- Parts of Maryland will be identified as the worst ozone area east of the Mississippi
- Ensuring that emission reductions continue will be a very high priority in Maryland



So, What is MDE Considering?

- EPA proposal opened the door to repeal of Stage II
- After refined analysis of when emission reductions go negative, MDE is planning to propose the following regulatory changes to the Stage II program
 - Phase 1 will repeal requirements for new stations
 - Phase 2 will address existing stations



What is the Economic Benefit?

- Considerable savings to service station owners and operators
 - Stage II cost for a medium sized new facility is approximately \$14,000-\$16,000
 - A vapor recovery nozzle costs approximately \$200 more than regular nozzles
 - EPA estimates savings of \$3,277 in reduced maintenance, testing, inspection and recordkeeping costs



How Will Stakeholders Be Involved?

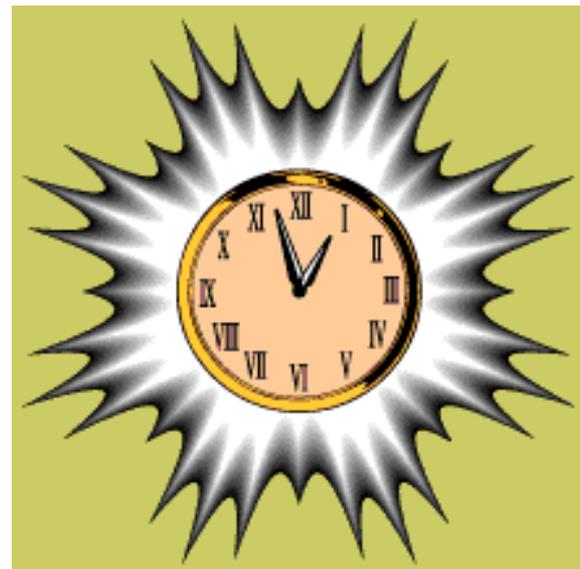
- MDE will be holding a series of stakeholder meetings
 - All interested parties
- Key Issues:
 - When does Stage II/ORVR incompatibility result in negative emission benefits?
 - What will EPA accept for states in the OTR?
 - How will EPA deal with backsliding?
 - If net reductions go negative is there backsliding?
 - If EPA requires new reductions to make up for backsliding, who should MDE regulate?





Proposed Schedule

- Spring/Summer 2012
 - Stakeholder meetings
 - Resolve issues
- Fall 2012
 - Proposed regulatory changes to AQCAC
- Notice of Proposed Action
- Public Hearing
- Effective by early 2013





Questions?





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