



Maryland Department of the Environment

Aftermarket Catalytic Converter Regulation



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What is a Catalytic Converter?

- Catalytic converters reduce emissions formed in the engine during fuel combustion prior to their exhaust out the tailpipe
- Catalytic converters contain a combination of precious metals that convert/reduce the amount of harmful pollution being emitted through the vehicle's exhaust system
- As catalytic converters age, contaminants may build up on the catalyst surfaces that make it less efficient





Replacement Options ...

... for Catalytic Converter Failures

- Three Options
 - Original Equipment Manufacturer (OEM)
 - Still functional replacement from another vehicle (used)
 - One manufactured by a third party (Aftermarket)





Options

Two types of Certified Catalytic Converters

- Federal (USEPA)
- California Air Resources Board (CARB)





Federal Aftermarket Converter

- Converter performance based on a reduction efficiency of 70/70/30% for the pollutants HC/CO/NO_x
- Converter manufactures certify to EPA that their converters meet the requirements
- Performance warranty of 25,000 miles



CARB

CARB Aftermarket Converter Program

- Converter must allow vehicle to meet its original certification level (e.g. TLEV, LEV, ULEV, etc.)
- Must be OBD II compatible, if it is an OBD equipped vehicle – check engine light must stay out
- Does not allow used converters





CARB (continued)

- CARB reviews test results from independent labs to certify converters.
- CARB executive orders are issued to specific engine families
- CARB audits/tests converters to ensure they meet the standards
- Warranty of 50,000 miles covers converter, parts, and labor





Need for an Updated Program

- Federal program not updated since 1986
 - Does not consider technological advances occurring over the years
- The Ozone Transport Commission (OTC) made a push for an update of the federal program
 - June 2009 – OTC statement calling for EPA to update the federal policy
 - OTC 2011 study found that federal program is failing to adequately reduce emissions
 - EPA should update federal program or OTC should pursue its own program





An Updated Program (continued)

- OTC has continued to push ...
 - April 2011 OTC provided EPA recommendation for an updated federal program that mimics California's
 - June 2014 OTC took an action announcing that the aftermarket catalyst model program/rule was complete and ready to be implemented by member states
 - June 2014 OTC reaffirmed its position on updated federal policy with a strong letter to EPA urging action
- Rule will move Maryland forward, but it will also continue to push for a federal program
 - This one simply makes the most sense as a federal rule
- Two OTC states (NY,ME) have already adopted this program
 - Other OTC states also moving forward





OTC Model Program/Rule

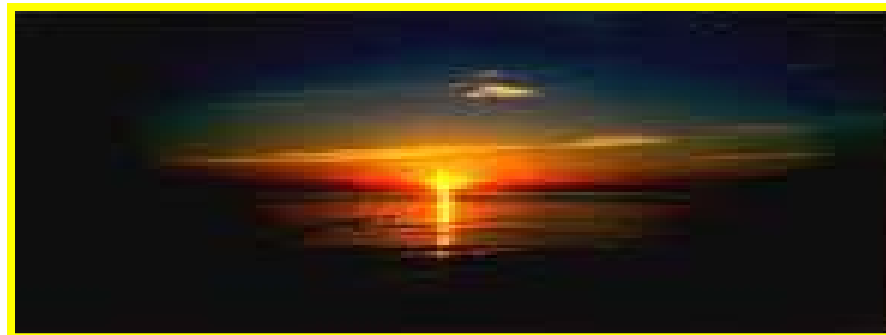
- Very large potential regional NOx emission reductions
 - Somewhere between 30 and 40 tons per day of reductions (in OTC)
 - Compared to other options ... this is a large number
- Based on the California Aftermarket Converter Program
- Requires the sale and installation of aftermarket converters meeting CARB standards
- Optional language to allow used converters if they are compatible with and installed on OBD II vehicles





Industry Support for OTC Effort

- OTC has worked for over 3 years with manufacturers of aftermarket converters
- OTC has industry support for their efforts on the model rule and for pushing EPA to update the federal aftermarket converter program
- One concern from the manufacturers ...
 - Much better if done through a federal rule





Why is a CARB Approved Converter...

... a better option?

	Federal Converter	CARB Converter	Is CARB Better
Converter Efficiency	70/70/30% (HC/CO/NOx)	97/83/96 % (HC/CO/NOx)	Yes
Warranty (conversion efficiency)	25,000 miles	50,000 miles	Yes
Designed to be compatible with an OBD II Vehicle	No	Yes	Yes

- Protection to consumers is another important reason to move ahead



Questions

