



**Maryland**  
Department of  
the Environment

# Aftermarket Catalytic Converter Regulation



MWAQC-TAC Meeting – Karl Munder, MDE – July 14, 2020



# Purpose of the Presentation

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- To inform MWAQC-TAC members of Maryland's new regulation requiring the installation of CARB approved Aftermarket Catalytic Converters (AMCCs)
- This is a new component of Maryland's plan in meeting the 2015 Ozone standard
- Our regulation is based on the OTC AMCC model rule which we updated to reflect changes implemented by states that have adopted a similar regulation



# Need for an Updated AMCC Regulation

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- The catalytic converter is a key component of a vehicle's emissions control equipment
- When converters fail, repair shops have two options for installing a replacement converter
  - Original equipment manufacturer (OEM) ... very good
  - Aftermarket catalytic converter (AMCC) ... not always so good
- Due to low quality of some AMCC, states and stakeholders have called on EPA to amend its federal AMCC policy
  - AMCC technology is lagging behind today's emissions control technology
  - California Air Resources Board (CARB) has demonstrated the ability of a state program to ensure AMCCs effectively reduce emissions
- A strong federal program is preferable to a patchwork of state rules



# Need for an Updated AMCC Program

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- Like MD, MWAQC jurisdictions and OTC states are getting close to meeting the 2015 ozone standard
  - Because of this, other OTC states are also working hard to find reductions and are pushing EPA for an updated AMCC program
  - Developed a model rule based on the CARB AMCC program for states to consider adopting
- EPA has shifted focus from AMCCs to broader anti-tampering measures
  - This is good ... but
  - It does not address AMCCs adequately
- An effective AMCC program can provide meaningful NO<sub>x</sub> reductions at a time when MWAQC members and other states are getting very close to meeting the 2015 ozone standard



# Pros and Cons

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- Pros

- CARB AMCCs would offer lower cost options for motorists, compared to OEM converters
- MD would see a reduction in locally produced NOx and other ozone forming emissions to assist with meeting the federal ozone standard
  - Estimated regional and local daily NOx reductions are 24 and 2 tons, respectively
- Provides consumers assurance that a vehicle's emissions control system will be functioning properly after a converter replacement
- The incremental cost of a CARB AMCC (approx. \$200) is offset by enhanced warranty coverage
- Supported by manufacturers ... Manufacturers of Emission Controls Association (MECA) and Autocare
- Provides momentum for other states to adopt



# Pros and Cons

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- Cons
  - Right now, some of the converters that don't work well are cheaper than the converters that will be required
  - Is still best implemented nationally by a federal effort, but a large regional effort helps all the local jurisdictions





# What Happened to the EPA Process?

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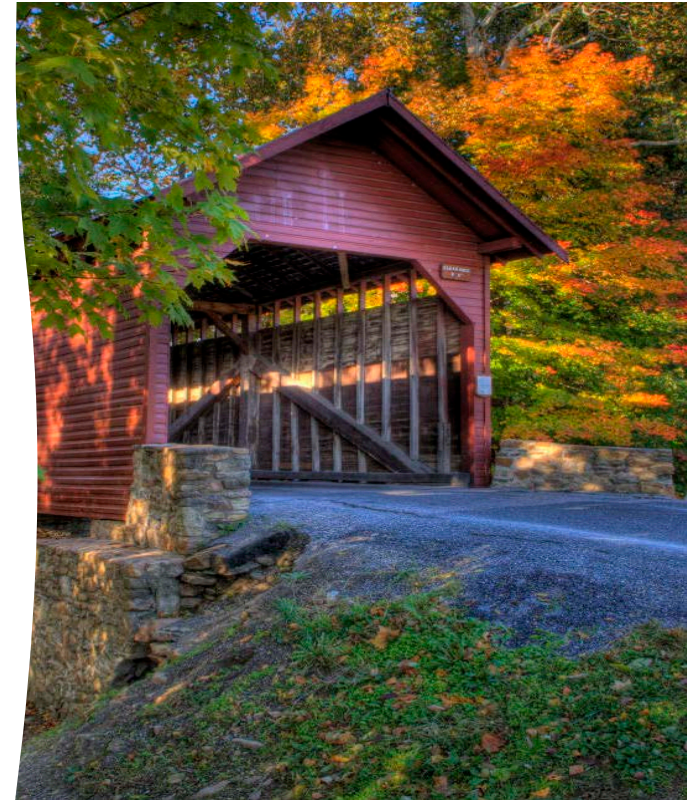
- Thirty years ago there was federal guidance on AMCCs to ensure that emissions control systems remained effective
- That guidance lapsed, so now ... there are no real prohibitions on the kind of AMCCs that can be purchased and installed
- EPA shifted its focus to anti-tampering
- Several states have moved forward with rules to address this problem. Other states in the queue ... update later



# Review of CARB AMCC Program

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- Developed by CARB due to ineffectiveness of federal AMCC program
- Requires converter to allow vehicle to meet its original emissions level
- Ensures OBD II system compatibility ... check engine light must stay out
- Does not allow used converters



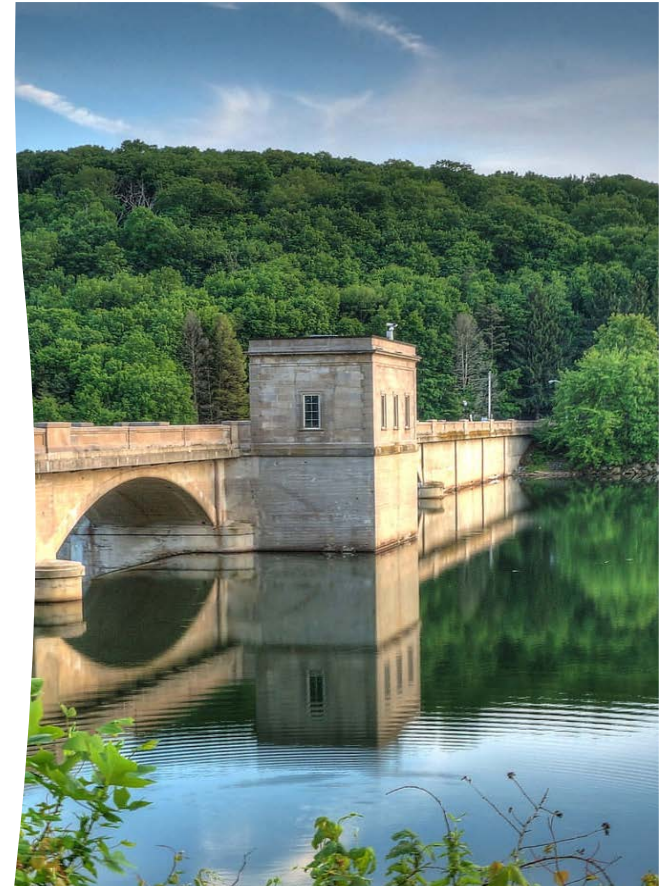




# CARB Overview ... continued

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- CARB reviews test results from independent labs to certify converters
- CARB audits/tests converters to ensure they meet the standards
- Warranty of 50,000 miles/ 5 years covers converter, parts, and labor





# AMCC Industry Proposal

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- In the absence of a national AMCC program, these state rules are supported by automobile parts manufacturers like:
  - MECA and Autocare
- MECA and Autocare proposed a concept for the use of CARB AMCCs on federal vehicles
  - Responds to the need to address federal vehicles as CARB AMCC program and OTC model rule do not
  - A problem for states outside of CA
- Allows manufacturers to determine an appropriate CARB AMCC based on a vehicle's characteristics (exhaust system configuration, emissions certification, etc.) and provide the information to installers
- Their proposal is based on standard industry practices



# AMCC Policies are being Adopted

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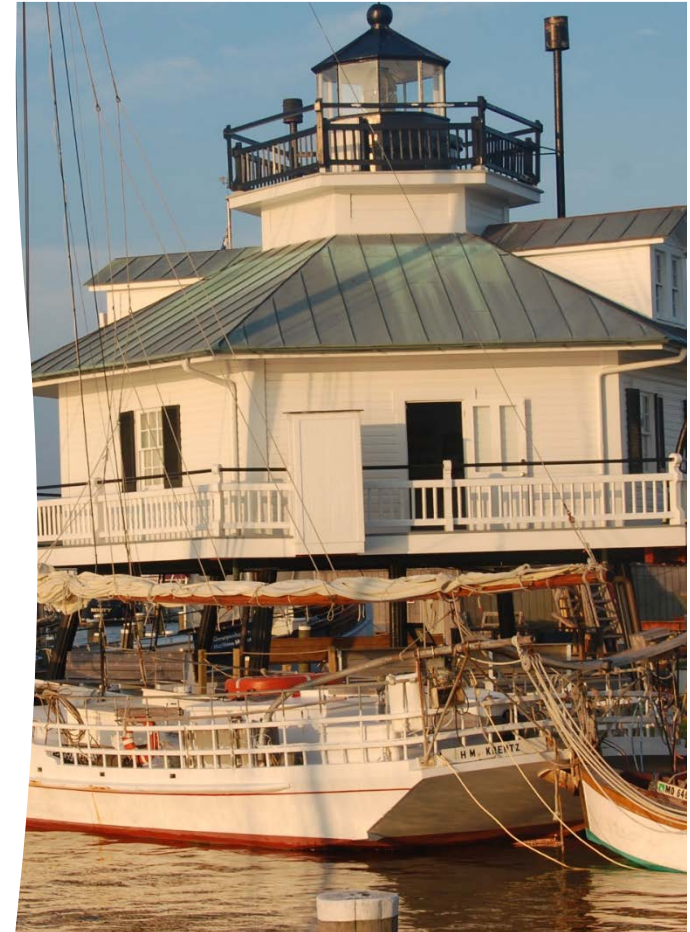
- Establishing a national AMCC program has been a goal of OTC, other states, and most of the AMCC industry for over a decade
- A regional OTC AMCC program is beginning to develop with the adoption of AMCC policies by individual states, even states outside of the OTC region are adopting a more modern AMCC policy
  - NY and ME have had to proactively develop and implement individual state programs based on the CARB program
  - MD, NJ and CT are now working towards adopting a state AMCC rule. MA is studying issue and considering a regulation in the future
  - CO adopted the CARB AMCC program along with its Clean Cars program, effective Jan 2021
  - NV just adopted CAL LEV for new vehicle sales. Unclear if CARB AMCC was included
- The more jurisdictions that adopt these types of programs, the more beneficial the emission reductions will be





# Overview of Maryland's AMCC Regulation

- Requires a CARB AMCC in Maryland for all vehicle certifications, either CARB or federal
- Prohibits used, recycled, or salvaged converters for all vehicles
- Establishes installers, parts manufacturers, and distributors as responsible entities
- Sets recordkeeping and reporting requirements for installers and parts manufacturers





# Applicability and Effective Date

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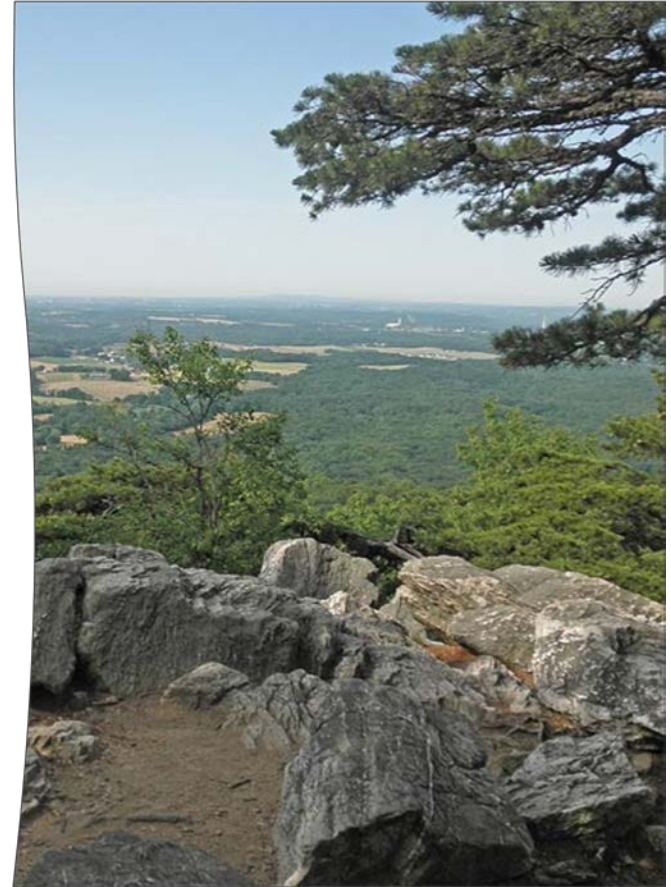
- This regulation applies to a person that produces, installs, sells, supplies, advertises, or offers for sale AMCCs on or after the effective date
- Non-CARB parts can still be shipped to an in-state distribution center/warehouse, through the state, or sold out of state
- Maryland's regulation takes effect on October 1, 2023



# Producer Requirements

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- A producer shall provide:
  - An aftermarket catalytic converter motor vehicle application guide to installers
  - A means for the installer to contact the producer for technical assistance
- This accommodates the industry proposal for CARB AMCCs on federal certified vehicles





# Installer Requirements

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- Installer
  - The installer must verify that the AMCC is specified for the motor vehicle using the producer's guide
  - The AMCC must be installed in the same location as the original equipment manufacturer catalytic converter





# Record Keeping and Reporting

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- Record Keeping Requirements
  - An installer shall retain records pertaining to the sale and installation of AMCCs for a minimum of 4 years from the date of installation
- Reporting Requirements
  - A producer shall submit to the Department semi-annual warranty reporting on AMCCs sold in the State







# Sunset Provision

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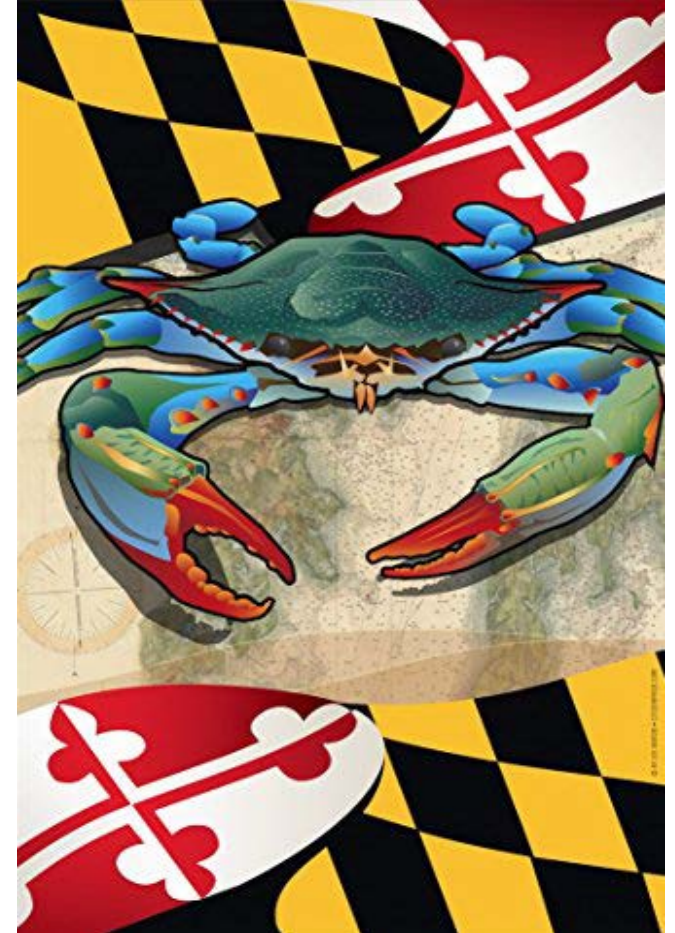
- Sunset
  - This regulation expires when the United States Environmental Protection Agency adopts a regulation or enforcement policy that provides for the sale, supply, advertisement, or installation of an AMCC that is able to reduce motor vehicle emissions at the same or greater level





# Recap

- A coordinated regional AMCC program is best in lack of any movement from the federal level for an updated program
- The MDE rule allows for a more robust product to be installed over a wider range of vehicle model years
- Updated program will help jurisdictions to achieve the 2015 Ozone standard
- This is an automotive aftermarket part regulation





# Questions

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