



**Manufacturers of Emission Controls Association**

2101 Wilson Boulevard  
Suite 530  
Arlington, VA 22201  
(202) 296-4797  
www.meca.org



**Auto Care Association**

7101 Wisconsin Ave.  
Suite 1300  
Bethesda, MD 20814  
(301) 654-6664  
www.autocare.org

February 04, 2022

Steve McCannon  
Mobile Sources Program Director  
Air Pollution Control Division  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South, Denver, CO 80246

Re: The Use of Used/Remanufactured Catalytic Converters

The Manufacturers of Emission Controls Association (MECA) and the Auto Care Association (Auto Care) are happy to provide comment regarding the applicability of used / remanufactured catalytic converters as replacements for malfunctioning original equipment (OE) converters on current in-use light-duty vehicles in the state of Colorado.

Over the past twenty-five years, light-duty passenger car and truck emission limits have continued to decrease as a result of the increasing stringency of U.S. EPA Federal Tier 1 (1994-1997), Tier 2 (2004-2009) and Tier 3 (2017-2025) standards and the corresponding California LEV I, LEV II and LEV III emissions standards which were typically implemented 2 to 3 years earlier. In response to these standards, the emission control industry has continued to invest in the development of advanced three-way catalyst formulations that provide incrementally greater reductions from >90% to >99% in regulated emissions. In addition, since 1996, light duty vehicles have been equipped with OBD-II diagnostic systems which provide indication of emissions exceeding standards by 1.5 to 4 times depending upon model year.

In 2008, the California Air Resources Board (CARB) adopted a regulatory amendment which ended the sale of used / remanufactured catalytic converters in the state. CARB's action was based on identified performance and quality assurance issues pertaining to used converters which were recovered from vehicles at the end of their useful lives<sup>1,2</sup>. As the age and use

---

<sup>1</sup> California Air Resources Board, Initial Statement of Reasons for Rulemaking, Public Hearing to Consider Amendments to Regulations Regarding New and Aftermarket Catalytic Converters and Used Catalytic Converters Offered for Sale and Use in California, [ww2.arb.ca.gov/sites/default/files/barcu/regact/2007/amcat07/isor.pdf](http://ww2.arb.ca.gov/sites/default/files/barcu/regact/2007/amcat07/isor.pdf), September 7, 2007.

conditions varied for used converters, the re-use of these converters would require that each converter must be tested to determine its level of performance, and develop a guideline which would indicate whether its remaining potential service life could meet consumer warranty requirements of 5 years or 50,000 miles.

The California Air Resources Board found that the existing rudimentary steady-state test procedures for used / remanufactured catalytic converters to determine their compliance to the 70% HC/70% CO/ 60% NOx reduction efficiency and 25,000 mile warranty requirements at that time could not be modified to reliably evaluate if a used converter can achieve the substantially higher levels of conversion efficiency (from >75% to >90%) required of newer vehicles over transient test cycles or cold-start conditions. CARB also determined that no economically feasible screening method could reliably evaluate whether a used converter will perform at the needed levels to assure the required new consumer warranty of 5 years and 50,000 miles. The board concluded that the cost of testing individual used catalytic converters for the levels of performance and lifetimes comparable to those adopted for new aftermarket converters would be prohibitively expensive (i.e. the testing costs will exceed the value of the used converters).

The Board also found that the provision of a five year, 50,000mile warranty by the supplier of a used / remanufactured catalytic converter would only ensure that the purchaser of a used catalytic converter would receive a free replacement if the vehicle's OBD II system indicated that the converter was malfunctioning or if the vehicle failed a tailpipe emission test during Smog Check. This could result in a consumer having to replace multiple used converters over the remaining useful life of their vehicle. In addition, the point at which an OBD II catalyst monitoring system would detect a converter as malfunctioning would be 1.5 to 4 times higher than the emission standards depending upon model year, and the emissions cut point in the Smog Check program would be even higher. These issues resulted in the determination that in-use emissions from used catalytic converters would be significantly higher than if new aftermarket catalytic converters were used.

Finally, in the CARB Final Statement of Reasons (March 2008), CARB staff indicated that if and when new and economically viable test methods were developed, staff would consider whether to make a proposal to the Board for their adoption<sup>3</sup>. MECA and Auto Care note that in the interim 14 years, no supplier of used / remanufactured converters has proposed or developed such procedures.

In fact, MECA and Auto Care would advise that we can no longer identify a company that nationally or regionally markets a product line of used / remanufactured original equipment catalytic converters. Given the dramatically increased value of precious metals (Pt, Pd, and Rh) contained within original equipment catalytic converters, the market business model appears

---

<sup>2</sup> California Air Resources Board, Final Statement of Reasons, Public Hearing to Consider Amendments to Regulations Regarding New Aftermarket and Used Catalytic Converters Offered for Sales and Use in California, [ww2.arb.ca.gov/sites/default/files/barcu/regact/2007/amcat07/fsor.pdf](http://ww2.arb.ca.gov/sites/default/files/barcu/regact/2007/amcat07/fsor.pdf), March 2008.

<sup>3</sup> California Air Resources Board, Final Statement of Reasons, Public Hearing to Consider Amendments to Regulations Regarding New Aftermarket and Used Catalytic Converters Offered for Sales and Use in California, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2007/amcat07/fsor.pdf>, page 14.

to have shifted to reclamation. Reclamation appears to represent a greater immediate financial return than the cost and risks to market these higher value OE converters for re-use (i.e. recovery, labeling, evaluation, re-conditioning, repair / re-manufacturing, significant inventory, distribution and overhead) and compete against lower cost aftermarket converters.

For these above stated reasons, we believe that permitting used / remanufactured converters to comply with state-run converter replacement programs will result in few additional OBD-II compliant devices for consumers, will result in higher in-use vehicles emissions, poorer air quality, and reduced consumer protections.

In contrast, manufacturers of new CARB exempt aftermarket catalytic converters are formulating, testing, manufacturing, auditing, maintaining national inventory and distribution, selling and supporting products which have demonstrated applicability on a range of vehicles and model years to bring in-use vehicles into compliance with the originally certified emission standards while providing a consumer warranty for a period of 5 years or 50,000 miles.

Finally, it must be said that aftermarket catalytic converters are not targeted for theft due to the lower value of precious metals they employ. Aftermarket catalytic converters are easily identified by their labeling, flow direction labels, etc. (see video at <https://www.youtube.com/watch?v=OpxQPkHTbg8>). Our informal internet survey indicates that aftermarket converters only command approximately \$20 per unit from reclamation companies (<https://rrcats.com/catalytic-converter-scrap-prices/> and other catalytic converter videos at [https://www.youtube.com/results?search\\_query=RRCats](https://www.youtube.com/results?search_query=RRCats))

MECA and Auto Care believe that the best way to deter original equipment catalytic converter theft is to enact legislation at the state level allowing only registered businesses to buy and sell legally salvaged catalytic converters with their original labeling intact from auto repair and wrecking yards as well as require these businesses to maintain customer and vehicle identification records for each converter transaction.

Please don't hesitate to contact us for clarification or questions regarding our comments.

Sincerely,



Dr. Rasto Brezny  
Executive Director  
Phone: (202) 296-4797 x106  
Mobile: 301-717-3628  
Email: [rbrezny@meca.org](mailto:rbrezny@meca.org)



Aaron Lowe  
SVP, Regulatory and Government Affairs  
Phone : (301) 654-6664  
Mobile : (240) 333-1021  
Email : [aaron.lowe@autocare.org](mailto:aaron.lowe@autocare.org)