

State of California
AIR RESOURCES BOARD

**PUBLIC HEARING TO CONSIDER THE PROPOSED AMENDMENTS TO
CALIFORNIA EVALUATION PROCEDURES FOR NEW AFTERMARKET
CATALYTIC CONVERTERS**

STAFF REPORT: INITIAL STATEMENT OF REASONS

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EXECUTIVE SUMMARY

California's current regulations governing aftermarket catalytic converters, adopted in 2007, require a manufacturer of aftermarket catalytic converters to demonstrate through emission testing of an aged converter that the test vehicles are capable of complying with the same emission standards to which the vehicles were originally certified. In addition, manufacturers must demonstrate that their catalytic converters are compatible with vehicle on-board diagnostic systems for 1996 and newer vehicles, warrant that the converters are free from defects, and implement quality control procedures to ensure production components perform as expected in-use.

In 2007 when California's current aftermarket catalytic converter regulations were adopted, light- and medium-duty vehicles sold in California were required to certify to the Low-Emission Vehicle (LEV) II emission standards. The aftermarket catalytic converter regulations were, therefore, designed to preserve the benefits of the LEV II program.

In 2012, the Air Resources Board (ARB) adopted the next generation LEV III regulations. The LEV III regulations reduce emissions beyond those achieved by LEV II by establishing more stringent vehicle emission standards, which are phased-in beginning with the 2015 model year. (LEV III also provided an option for early certification to these standards in model year 2014.)

Staff is proposing amendments to the procedures it uses to evaluate and approve aftermarket catalytic converters designed for use on California passenger cars and trucks to allow them to be used for LEV III vehicles.

Staff estimate that the avoided cost (benefit) for California customers to replace defective catalytic converters would amount to \$17 million annually.

I. INTRODUCTION

State law generally prohibits the installation, sale, offer for sale, or advertisement of emission-related parts for motor vehicles that are not functionally identical to those installed by the original equipment manufacturer (OEM). However, California regulations allow new aftermarket catalytic converters to be used on older vehicles operating within California provided that they comply with established performance requirements. These performance requirements balance the continued need for controlling emissions from motor vehicles as they age against the cost of replacing catalytic converters on vehicles that often have a limited remaining lifetime and relatively low marketplace value.

II. BACKGROUND

Catalytic converters reduce vehicle exhaust emission levels by chemically converting engine-out emissions before the exhaust gas leaves the tailpipe. A converter contains a substrate that directs exhaust gases through narrow channels coated with precious metals that initiate the conversion of pollutants into primarily carbon dioxide and water vapor.

Since the mid-1970's, when catalytic converters were first introduced, the performance and durability of motor vehicle emission controls have significantly improved. In 2007, the Air Resources Board adopted a new evaluation procedure that a manufacturer must use in order to certify and sell aftermarket catalytic converters in California. This new procedure was designed to ensure that aftermarket catalytic converters that are sold in California as low-cost alternatives to OEM catalytic converters are effective in bringing vehicles with a malfunctioning OEM converter back into compliance with applicable emission standards. This was accomplished by requiring a manufacturer of aftermarket catalytic converters to demonstrate through emission testing of an aged converter that the test vehicles are capable of complying with the emission standards to which the vehicles were originally certified. In addition, manufacturers must demonstrate that their catalytic converters are compatible with vehicle on-board diagnostic systems for 1996 and newer vehicles, warrant that the converters are free from defects, and implement quality control procedures to ensure production components perform as expected in-use. This aftermarket catalytic converter evaluation procedure was designed to economically preserve the benefits of California's stringent vehicle standards as vehicles approach the end of their useful lives on the road.

III. STATEMENT OF REASONS

A. DESCRIPTION OF PROBLEM PROPOSAL IS INTENDED TO ADDRESS

In 2007, when California's current aftermarket catalytic converter regulations were adopted, light- and medium-duty vehicles sold this state were required to certify to the Low-Emission Vehicle (LEV) II emission standards. However, in 2012, ARB

adopted the next generation LEV III regulations. The LEV III regulations vehicles reduce emissions beyond those achieved by LEV II by establishing more stringent vehicle emission standards, which are phased-in beginning with the 2015 model year. (LEV III also provided an option for early certification to these standards in model year 2014.)

Accordingly, staff is proposing amendments to the procedures it uses to evaluate and approve aftermarket catalytic converters designed for use on California passenger cars and trucks to allow them to be used for LEV III vehicles.

B. SUMMARY AND RATIONALE FOR EACH REGULATORY PROVISION

1. List of Changes to Appendix A – Proposed Regulation Order

Amendments to Title 13, CCR, Section 2222

Subsection (h)(2)

It is necessary to amend this subsection to update the amended date of the incorporated “California Evaluation Procedures for New Aftermarket Catalytic Converters.”

2. List of Changes to Appendix B – “California Evaluation Procedures for New Aftermarket Catalytic Converters”

Change Throughout Document (not repeated below)

In multiple places throughout this document the term “catalyst” has been changed to “catalytic converter.” In those places where this change has been made, the change is necessary because the applicable subsections pertain to catalytic converters and not to catalysts.

Section (c) DEFINITIONS

“Full useful life” – It is necessary to modify this definition to include “full useful life” as defined in the certification requirements and test procedures incorporated by reference in title 13, CCR section 1961.2(d) and to remove the reference to “interim useful life” because there is no mention of “interim useful life” in title 13, CCR subsection 1961.2(d).

“Low-Emission Vehicle (LEV) I standard” – It is necessary to modify this definition to fix an incorrect citation of title 13, CCR subsection 1960.1(h)(2) and to add a hyphen to the term “Low-Emission” in the definition.

Section (e) EMISSION TESTING REQUIREMENTS

Subsection (4)

Subsection (A)

Subsection 2: It is necessary to add a reference to title 13, CCR subsection 1961.2(d) to indicate that this subsection applies to title 13, CCR subsection 1961.2(d).

Subsection 3: It is necessary to add the words “if applicable” to the text in row 2 column 2 of Table 1, because for some vehicle emission categories, “interim useful life standards” do not exist.

Subsection (C)

Subsection 1: It is necessary to add a reference to title 13, CCR subsection 1961.2(d) to indicate that this subsection applies to title 13, CCR subsection 1961.2(d).

Section (f) ADDITIONAL REQUIREMENTS FOR EXEMPTION

Subsection (2)

Subsection (C)

Subsection 4: It is necessary to correct the title of the person to whom emission warranty information reports and updates should be sent.

Subsection (5)

Subsection (D)

Subsection 2: It is necessary to correct the title of the person to whom reports should be sent.

Section (h) INSTALLATION REQUIREMENTS

Subsection (2): It is necessary to modify this subsection to fix an incorrect citation of title 13, CCR subsection 2222(f).

IV. AIR QUALITY

There are no air quality impacts of the proposed changes to the “California Evaluation Procedures for New Aftermarket Catalytic Converters.”

Catalytic converters are the single most important technology for the control of emissions from gasoline-powered motor vehicles. Although OEM catalytic converters are designed and certified to last for the full useful life of a vehicle, heat, vibration, and poisons can eventually reduce catalytic converter efficiencies to the point that older vehicles will not be able to meet Smog Check emission limits. When this occurs, such converters need to be replaced. The “California Evaluation Procedures for New Aftermarket Catalytic Converters” set forth requirements for demonstrating that a replacement aftermarket catalytic converter will be as effective as a certified OEM catalytic converter in meeting the emission standards to which it was originally certified.

Currently, the “California Evaluation Procedures for New Aftermarket Catalytic Converters” do not apply to vehicles that certify to LEV III emission standards. The proposed amendments to these Evaluation Procedures will expand their applicability to include LEV III vehicles.

V. ENVIRONMENTAL ANALYSIS

A. INTRODUCTION

ARB's regulatory program, which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans for the protection and enhancement of the State's ambient air quality, has been certified by the California Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA) (14 CCR 15251(d)). Public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to, preparing environmental impact reports, negative declarations, and initial studies. ARB, as a lead agency, prepares a substitute environmental document (referred to as an "Environmental Analysis" or "EA") as part of the Staff Report prepared for a proposed action to comply with CEQA (17 CCR 60000-60008). This chapter provides the basis for ARB's determination that the proposed amendments are exempt from the requirements of CEQA. A brief explanation of this determination is provided in section B below. If the amendments are finalized, a Notice of Exemption will be filed with the Office of the Secretary for the Natural Resources Agency and the State Clearinghouse for public inspection.

B. ANALYSIS

ARB has determined that the proposed amendments are exempt from CEQA under the "general rule" or "common sense" exemption (14 CCR 15061(b)(3)). The common sense exemption states a project is exempt from CEQA if "the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." The proposed amendments update the evaluation procedure that a manufacturer must use in order to certify and sell aftermarket catalytic converters in California to be used on California passenger cars and trucks. These changes to the evaluation procedure incorporate LEV III standards and test procedures to demonstrate that LEV III vehicles that are equipped with these devices will comply with the same LEV III emission standards to which they were originally certified. These changes to the evaluation procedures are administrative in nature and do not result directly or indirectly in any physical changes in the environment, such as the construction of new testing facilities or equipment; changes to emissions from the vehicles using the aftermarket parts; or impacts to air quality. Therefore, ARB staff has determined that it can be seen with certainty that there is no possibility that the proposed amendments may result in a significant adverse impact on the environment; therefore, this activity is exempt from CEQA.

VI. ENVIRONMENTAL JUSTICE

State law defines environmental justice as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. Gov. Code §65040.12(e). ARB is committed to making environmental justice an integral part of its activities. The Board approved its Environmental Justice Policies and Actions (Policies) on December 13, 2001, to establish a framework for incorporating environmental justice into ARB's programs consistent with the directives of State law (ARB 2001). These policies apply to all communities in California, but recognize that environmental justice issues have been raised more in the context of low-income and minority communities.

The proposed amendments are expected to benefit low-income and minority communities, because the availability of lower cost aftermarket catalytic converters makes it more affordable for low income drivers to keep their vehicles cleaner and in compliance with smog check. So while there is not a calculated emissions benefit for the proposed amendments, they do provide economic benefit to Environmental Justice communities

VII. ECONOMIC IMPACTS ANALYSIS/ASSESSMENT

A. LEGAL REQUIREMENTS

Sections 11346.3 and 11346.5 of the Government Code require state agencies to assess the potential adverse economic impacts on California business enterprises and individuals when proposing to adopt or amend any administrative regulation. The assessment shall assess whether and to what extent the regulatory proposal will affect the creation or elimination of jobs within the state, the creation of new businesses or the elimination of existing businesses within the state, the expansion of businesses currently doing business within the state, and the benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.

State agencies are also required to estimate the cost or savings of any state or local agency and school districts in accordance with instructions adopted by the Department of Finance. This estimate is to include any nondiscretionary costs or savings to local agencies and the costs or savings in federal funding to the state.

B. COSTS AND SAVINGS FROM PROPOSAL

1. Estimated Private Sector Cost Impacts

The proposed amendments are expected to affect businesses that manufacture and/or market new aftermarket catalytic converters. ARB

identifies seven businesses¹ that could be directly affected by the proposed amendments, of which three are located in California and only two are considered to be small businesses. A small business is defined as independently owned and operated, not dominant in its field of operation, and having fewer than 100 employees. The proposed amendments could indirectly affect original equipment manufacturers (OEMs) of catalytic converters, who would be subjected to greater competition for their LEV III catalytic converters.

The LEV III regulations phase in for new passenger cars and trucks up to 14,000 pounds gross vehicle weight. Starting in 2020, no new vehicles of these types will be allowed to be sold in California unless they meet LEV III emission standards. Since the current aftermarket catalytic converter evaluation procedures do not apply to LEV III vehicles, aftermarket parts manufacturers would lose an increasing portion of market share as the vehicle fleet transitions to LEV III vehicles without the proposed amendments to these procedures. Eventually, many of these businesses would likely be adversely impacted unless they are able to replace their lost income with other sources of income. These amendments will enable affected businesses to produce and sell aftermarket catalytic converters for use on LEV III vehicles if they find it to be economically advantageous. The required production quality control and warranty reporting procedures for these businesses will not be affected by these amendments.

The total statewide dollar costs that businesses and individuals may incur to comply with these amendments depends on how many manufacturers choose to participate in the program. Based on information received from industry the manufacturer cost increase for a LEV III aftermarket catalytic converter will range from \$40 to \$85² versus a LEV II aftermarket catalytic converter, or an average of \$62.50 per unit. The cost increase is mainly due to the use of more platinum group metals in manufacturing a LEV III catalytic converter. Given the common mark-up of 20 percent in the industry³, the average price increase to the consumer is estimated to be \$75 per unit (i.e., \$62.50 x 1.20). Dividing the average 487,500 annual aftermarket catalytic converter sales volume information received from industry by the available pool of California vehicles (24.2 million vehicles over a 13 model year range⁴) that an aftermarket catalytic converter can be installed, the annual market share for aftermarket catalytic converters is estimated to be approximately 2 percent (i.e., 487,500/24.2 million). Based on the vehicle sales data for 2015

¹ Only seven businesses are currently active in manufacturing and selling aftermarket catalytic converters in California with Executive Orders from ARB.

² Price increase range was obtained from catalyst manufacturer that supplies coated substrates to catalytic converter manufacturers.

³ The same industry source as indicated in footnote 1.

⁴ Obtained by multiplying the average of the OEMs projected annual sale of vehicles in California (1.86 million) by 13 years.

to 2017 model years,⁵ California sales of LEV III vehicles were averaged to 1.1 million annually. Assuming that the seven affected businesses are able to capture the current market share that is equivalent to the 2 percent of annual California vehicle sales, the annual LEV III aftermarket catalytic converter sales is estimated to be 22,000 (i.e., 1.1 million x 0.02). This estimate of sales volume is likely to be on the high side, especially in early years of the regulation because the failure chance of a catalytic converter is very low when a vehicle is less than seven years old.

The proposed amendments would not force a manufacturer to participate and only businesses that determine it is in their best financial interest are expected to do so. If no manufacturers participate, these amendments have no cost; if all manufacturers choose to participate, then incurred costs will be averaged approximately \$1.4 million annually (i.e., 22,000 x \$62.50). Staff estimates that approximately 110,000 LEV III aftermarket catalytic converters will be sold to the consumer during the 5-year life of the regulation (i.e., 22,000 x 5) at an average additional price of \$75 per catalytic converter. This would result in the total statewide costs of \$8.25 million (i.e., 110,000 x \$75) over the 5-year life of the regulation, of which \$6.9 million will be the production cost (i.e., 110,000 x \$62.5) and \$1.4 million will be manufacturers' profit [i.e., 110,000 x (\$75 - 62.5)]. The affected manufacturers are expected to be able to recover their cost along with a 20 percent mark-up because their product prices will still be significantly below the OEM's product prices.

2. Potential Costs to a Small Business

Based on California sales volume information received from industry the small business annual aftermarket catalytic converter market share is approximately 2.6 percent, which represents annual sales of 572 units (i.e., 22,000 x 0.026). Since only two California-based small businesses are likely to be affected by the proposed amendments, the cost to a small business is estimated to be around \$18,000 annually [i.e., (572/2) x \$62.50]. As stated above, these small businesses are expected to pass on the costs to the consumer at a 20 percent mark-up.

3. Potential Costs a typical Business

Based on California sales volume information received from industry the typical business annual aftermarket catalytic converter market share is approximately 97.4 percent, which represents annual sales of 21,428 units (i.e., 22,000 x 0.974). There are seven businesses affected, of which five are typical businesses and two are small businesses. The annual cost to a typical business, therefore, is estimated to be around \$268,000 [i.e., (21,428/5) x \$62.50].

⁵ Obtained from the average of the OEMs projected annual sales of LEV III vehicles in California for 2015 to 2017 model years.

4. Costs and Savings to an Individual

If manufacturers are able to pass on the entire cost of the proposed amendments plus a 20 percent mark-up,, a consumer is expected to pay, on average, \$75 more for the replacement of a LEV III catalytic converter than it would have paid for a LEV II catalytic converter.

However, the only option without the proposed amendments is for consumers to purchase an OEM catalytic converter. The price of an OEM catalytic converter is often \$500 to \$1000 higher than an aftermarket catalytic converter. Therefore, based on staff's estimate that approximately 22,000 LEV III converters will be sold annually the avoided cost savings for California customers to replace defective catalytic converters would be between \$55 million to \$110 million over 5 years. Thus, the annual cost-savings would be \$83 million on average, during the 5-year life of the regulation.

C. POTENTIAL IMPACT ON JOBS

In response to the proposed amendments, a few jobs may be created by aftermarket catalytic converter manufacturers and marketers as they transition or expand from the production of LEV II to LEV III catalytic converters. No jobs are expected to be lost by OEMs.

D. POTENTIAL IMPACT ON BUSINESS CREATION, ELIMINATION, OR EXPANSION

The proposed regulatory amendments are not expected to result in the creation, elimination, or expansion of any businesses in California if all current aftermarket manufacturers choose to participate in the production of new LEV III catalytic converters. However, California manufacturers may experience expansion if out-of-state manufacturers decide not to participate in the LEV III production.

E. POTENTIAL IMPACT ON BUSINESS COMPETITIVENESS

The proposed amendments are expected to have no noticeable effect on the ability of California businesses to compete with businesses in other states. The proposal would apply to all aftermarket catalytic converter manufacturers and marketers that choose to produce LEV III catalytic converters, regardless of where they are produced.

F. POTENTIAL BENEFITS INCLUDING THE IMPACT ON HEALTH AND WELFARE, WORKER SAFETY, AND THE STATE'S ENVIRONMENT

The proposed amendments will benefit the consumer by increasing their choices for replacement of defective catalytic converters. The increased competition between

OEM and aftermarket manufacturers of catalytic converters tend to lower prices and encourage innovation. The proposed amendments will also benefit manufacturers of aftermarket catalytic converters by enabling them to sell complying products in California as the market transitions to LEV III vehicles.

LEV III catalytic converters are subject to more stringent standards designed to reduce emissions beyond those achieved by LEV II vehicles. The proposed amendments will ensure that LEV III aftermarket catalytic converters that are sold in California as low-cost alternatives to OEM catalytic converters are effective in bringing vehicles with a malfunctioning OEM converter back into compliance with applicable emission standards. Therefore, these amendments have no impact on emissions benefits. Worker safety also is not expected to be affected by the proposed amendments because there is no significant difference between manufacturing and installing LEV III OEM and aftermarket catalytic converters.

G. FISCAL IMPACT TO STATE AND LOCAL AGENCIES

Local and State agencies purchased 5,999 and 1,945 LEV III vehicles in 2015 respectively.⁶ Annual sales of LEV III aftermarket catalytic converters are estimated to be equivalent to 2 percent of annual LEV III vehicle sales. The annual cost to local agencies for the purchase of LEV III aftermarket catalytic converters, therefore, is estimated to be up to \$9,000 (i.e., $5,999 \times 0.02 \times \75) beginning in the 2019-2020 fiscal year if local agencies opted to use aftermarket catalytic converters. However, the availability of a LEV III aftermarket catalytic converter allows local and State agencies to avoid paying for a higher priced OEM catalytic converter that often costs \$500 to \$1,000 more. As a result, local agencies are expected to benefit from the proposed amendments by avoiding the annual expenses of \$60,000 (i.e., $5,999 \times 0.02 \times \500) to \$120,000 (i.e., $5,999 \times 0.02 \times \$1,000$) to replace defective catalytic converters. Local agencies are expected to incur no other cost.

Pursuant to Government Code, section 11346.9 (a) (2), the estimated cost to local agencies are non-reimbursable because the proposed amendments would not constitute a reimbursable mandate. The proposed amendments apply generally to all entities operating affected sources. Therefore, they do not constitute a “program” imposing any unique requirements on local agencies as set forth in section 17514 of the California Government Code. (*County of Los Angeles v. State of California*, 42 Cal. 3d 46 (1987)). As such, the proposed amendments neither require local agencies to undertake a new program nor to provide an increased level of level of service in an existing program. (See Cal. Govt. Code section 17514.)

The annual cost to State agencies for the purchase of LEV III aftermarket catalytic converters is estimated to be up to \$3,000 (i.e., $1,945 \times 0.02 \times \75) beginning in the 2019-2020 fiscal year. State agencies also expected to benefit from the proposed amendments by avoiding the annual expenses of up to \$19,500 (i.e., $1,945 \times 0.02 \times \500) to \$39,000 (i.e., $1,945 \times 0.02 \times \$1,000$) to replace defective catalytic converters.

⁶ Data obtained from California Energy Commission (CEC)

ARB does not anticipate a need for additional staff. Any work load from the market transition from LEV II to LEV III catalytic converters can be handled by current staff.

H. CALIFORNIA HEALTH AND SAFETY CODE SECTION 57005 - MAJOR REGULATION REQUIREMENTS

Per California Health and Safety Code Section 57005, for a major regulation proposed on or after January 1, 2014, a standardized regulatory impact analysis is not required for the proposed amendments. Health and Safety Code Section 57005(b) defines “major regulation” as “any regulation that will have an economic impact on the state’s business enterprises in an amount exceeding fifty million dollars (\$50,000,000), as estimated by the board, department, or office within the agency proposing to adopt the regulation. These amendments result neither in costs or cost savings exceeding fifty million dollars (\$50,000,000) in any 12-month period between the date the major regulation is filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented.

For purposes of subdivision (a) of Section 11346.3 of the Government Code,” “major regulation” means any regulation that will have an economic impact on the state’s business enterprises in an amount exceeding ten million dollars (\$10,000,000), as estimated by the board, department, or office within the agency proposing to adopt the regulation in the assessment. These amendments do not meet the definition of a major regulation.

VIII. EVALUATION OF REGULATORY ALTERNATIVES

California Government Code section 11346.2(b)(4)(A) requires ARB to consider and evaluate reasonable alternatives to the proposed regulatory action and provide reasons for rejecting those alternatives. This section discusses alternatives evaluated and provides reasons why these alternatives were not included in the proposal. ARB staff did not find any of the alternatives considered to be more effective in carrying out the purpose for which the proposed regulatory action is proposed or to be as effective as or less burdensome to affected businesses than the proposal.

No alternative considered by the agency would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective or less burdensome to affected private persons than the proposed regulation.

Staff considered the following regulatory alternatives to the proposed amendments:

Do not amend current evaluation procedure. This alternative would continue to prohibit manufacturers of aftermarket catalytic converters from selling them for use on LEV III vehicles. This alternative was rejected because the lack of availability of aftermarket catalytic converters that are approved for use on these vehicles would

eliminate low-cost alternatives to OEM catalytic converters without an associated air quality benefit for California.

Require aftermarket catalytic converters for LEV III vehicles to be functionally identical to original equipment catalytic converters. This alternative was rejected because it would increase the average price of a replacement catalytic converter by \$600 - \$900 compared to the proposed amendments without increasing the levels of protection that would be achieved by OEM catalytic converters. If this alternative were implemented, aftermarket catalytic converters would be approximately equal in cost to an OEM catalytic converter. This is because to be functionally identical, the new aftermarket catalytic converters would be required to have the same amount of precious metals loading and the same 150,000 mile durability requirements as the original equipment catalytic converters. This would also be burdensome to the manufacturers of aftermarket catalytic converters because the warranty period for aftermarket catalytic converters is 2 years/20,000 miles shorter than the warranty period for original equipment catalytic converters. Aftermarket catalytic converters are subject to durability requirements extending to a minimum of 50,000 miles or 5 years. As noted above, replacement of OEM catalytic converters is usually required for vehicles that are seven years or older. Therefore, longer durability requirements for aftermarket catalytic converters are not necessary to replicate the same levels of protection that would be achieved by OEM catalytic converters. Furthermore, the information received by ARB regarding the amount of precious metals in the original equipment catalytic converters is generally proprietary information and cannot be shared with the aftermarket catalytic converter manufacturers.

To provide some information regarding increased costs under this alternative, if all manufacturers choose to participate in producing catalytic converters for LEV III vehicles, approximately 22,000 catalytic converters will be sold annually and 110,000 will be sold during the five year lifetime of the regulation. The cost for California customers to replace defective catalytic converters would increase between \$66 million (i.e., 110,000 x \$600) to \$99 million (i.e., 110,000 x \$900) or \$83 million on average during the regulation lifetime of 5 years. In this case, the competition from aftermarket manufacturers of catalytic converters may slightly lower prices to consumers, but they would still pay higher prices than under the proposed amendments. Aftermarket manufacturers could benefit from this alternative by increasing profits if they were able to sell their LEV III catalytic converters in California. Assuming that these manufacturers are able to sell their LEV III catalytic converters at OEM prices and still maintain their market share, they would be able to generate \$13.2 million (i.e., 22,000 x \$600) to \$19.8 million (i.e., 22,000 x \$900) in annual sales. Therefore, this alternative was rejected because it would increase the cost of aftermarket catalytic converters without providing emission reductions or health benefits.

Small Business Alternative

Section 11346.2(b)(4)(B) also requires consideration of reasonable alternatives that would lessen any adverse impact on small businesses. The Board has not identified any alternatives that would lessen any adverse impact on small business. This is the best alternative for small businesses, because the LEV III aftermarket catalytic converter evaluation process added by the proposed amendments is voluntary and is intended to enable affected businesses to manufacture and sell aftermarket catalytic converters for use on LEV III vehicles if they find it to be economically profitable. Alternatively, the proposed amendments benefit small businesses by enabling them to continue selling aftermarket catalytic converters as alternatives to OEM catalytic converters as the vehicle fleet transitions from LEV II vehicles to LEV III vehicles.

IX. JUSTIFICATION FOR ADOPTION OF REGULATIONS DIFFERENT FROM FEDERAL REGULATIONS CONTAINED IN THE CODE OF FEDERAL REGULATIONS

There are no comparable federal regulations.

The United States Environmental Protection Agency (U.S. EPA) addressed the subject of aftermarket catalytic converters by issuing an interim enforcement policy in 1986. The policy permits the sale of aftermarket converters provided they meet conversion efficiencies of at least 70 percent for hydrocarbons and carbon monoxide, and 30 percent for oxides of nitrogen. Some procedural differences currently exist; for example, ARB's regulation requires converter manufacturers to demonstrate compliance with its requirements before an approval is issued, whereas the federal requirements permit manufacturers to self-determine compliance. Since issuing its enforcement policy, U.S. EPA has thus far decided not to issue regulations specific to aftermarket catalytic converters, and has not announced any plans to do so in the near future.

X. PUBLIC PROCESS FOR DEVELOPMENT OF PROPOSED ACTION (PRE-REGULATORY INFORMATION)

To support development of this proposal, ARB staff held a public Webinar Workshop on August 24, 2016 to obtain input from industry and other stakeholders on the proposed changes to the "California Evaluation Procedures for New Aftermarket Catalytic Converters." The notice for this workshop also provided contact information for stakeholders who were interested in scheduling individual meetings to discuss these proposed changes. No comments or questions were received on the proposed changes, and no stakeholders requested to meet with staff individually. Therefore, no further workshops or meetings were conducted.

XI. REFERENCES

1. California Air Resources Board, Mail-Out #ECARS 16-06. *Workshop to Discuss Proposed Amendments to the California Evaluation Procedures for New Aftermarket Catalytic Converters to Include LEV III Test Procedures*. August 2, 2016. <https://www.arb.ca.gov/msprog/mailouts/ecars1606/ecars1606.pdf>
2. Federal Register, Volume 51, No. 150 at page 28133 (August 5, 1986) Environmental Protection Agency, "Sale and Use of Aftermarket Catalytic Converters."

APPENDICES

Appendix A: Proposed Regulation Order

Appendix B: Proposed Amendments to the “California Evaluation Procedures for New Aftermarket Catalytic Converters”