

**Notice of Public Hearing to Consider
Proposed Amendments to the Procedures
for Exemption of Add-On and Modified
Part(s) for On-Road Vehicles/Engines
Specific to Electric Vehicle Conversions
Staff Report: Initial Statement of Reasons**

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Executive Summary

The California Air Resources Board (CARB or Board) staff is proposing amendments to the “Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines” (Procedure),¹ adopted June 29, 2021, and incorporated by reference in the California Code of Regulations (CCR), title 13, division 3, chapter 4, article 2, section 2222, subdivision (e) and section 2224, subdivision (b), to clarify the application and review process for electric vehicle (EV) conversions.

An aftermarket part is any component or device used on a vehicle or engine that was not part of that vehicle or engine when it was originally certified for sale. If the aftermarket part is not functionally identical to the original equipment part in all respects which in any way affect emissions, it is considered an add-on or modified part and has the potential to compromise the effectiveness of emission control systems and consequently impact emissions levels. To protect emissions benefits projected at the time of adoption of vehicle or engine certification standards, California law (Veh. Code, § 27156) prohibits the sale, offer for sale, or installation of add-on or modified parts, unless such parts have been exempted by CARB. The Procedure provides staff the tools to work with aftermarket parts manufacturers in the daily processing of submitted exemption applications.

The June 29, 2021, changes to the aftermarket evaluation process were intended to clarify, streamline, and update the CARB processes associated with a Vehicle Code section 27156 exemption by providing defined categories of products with specific information required for each product category. Applications are further divided according to specific criteria of the vehicles or engines on which they are to be installed: single original equipment manufacturer vehicle or engine manufacturer, same vehicle or engine class, same engine configuration (e.g., I4, V6, V8, method of aspiration), same fuel type (flex-fuel is included with gasoline), same emissions control technologies as listed on vehicle or engine certification Executive Order, and same emission standards. Applications, then, are divided according to the combination of the product category and the vehicle or engine selection.

An electric vehicle (EV) conversion is a set of parts that converts a previously certified gasoline-, diesel-, or alternative-fueled vehicle to an electric vehicle. Under the existing Procedure, EV conversions are currently assessed as Category IX applications, which is a “catch all” category for products that do not fall in any other aftermarket part category.

Although EV conversions are included in Category IX, they are unlike the other aftermarket parts covered by this category that have the potential to adversely affect the emissions of a vehicle. EV conversions are unique when compared to other aftermarket parts as they completely replace the existing combustion engine, rather than being used in conjunction with it. Requirements of the Procedure that are critical when assessing other aftermarket parts are of limited technical value when assessing an EV conversion due in large part to the fact that the original engine is removed from the vehicle and assessing the effect of the EV conversion on the now-removed engine is irrelevant.

¹ California Air Resources Board (CARB). June 29, 2021. “Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines,” incorporated by reference in California Code of Regulations, title 13, division 3, chapter 4, article 2, section 2222, subdivision (e) and section 2224, subdivision (b). <https://ww2.arb.ca.gov/sites/default/files/barcu/board/15day/ampts/proceduresfinal.pdf>.

Staff Proposal

Staff proposes creating a new “Category X” application category and section XI of the Procedure that are specific to EV conversions. The new category and new section will clearly identify what the requirements are for these types of aftermarket parts to receive a Vehicle Code section 27156 exemption, thereby helping to clarify, simplify, and streamline the application process for a manufacturer of these types of products.

This rulemaking modifies only certain portions of the Procedure that pertain to EV conversions. The remainder of the Procedure is unmodified. The proposed amendments are solely intended to apply to EV conversions that have no source of combustion (e.g., engine, fuel-fired heater) and emit no regulated emissions. The modifications are intended to address the unique considerations when assessing applications for EV conversions. The proposed amendments do not apply to EV conversions of vehicles originally certified as electric vehicles or hybrid electric vehicles or to other types of aftermarket parts other than EV conversions.

The proposed amendments to the Procedure do not add any new requirements to manufacturers of EV conversions. Rather, the existing requirements are reorganized, and language is clarified regarding how to apply certain provisions to EV conversions. EV conversion applications will have a reduced burden of requirements, as the converted vehicles no longer have a combustion engine to be subject to emission standards, emissions testing, and other related considerations. The proposed amendments do not apply to EV conversion kits that include a fuel-fired heater, auxiliary power unit that uses a combustion engine, or other sources of regulated emissions. They also do not apply to vehicles that were originally certified as electric vehicles or hybrid electric vehicles.

Emissions Reductions and Cost Impact

The benefits of the proposed amendments to the Procedure are to provide a clearer path for manufacturers of EV conversions to receive an exemption from the prohibitions of Vehicle Code section 27156; the need for potentially fewer applications; and potentially facilitating the introduction of more EV conversions into the marketplace which, in turn, supports CARB’s EV, climate, and air quality goals.

The proposed amendments are not expected to have a direct impact on emissions, as no new requirements are imposed. The streamlining and clarification of the process is expected to facilitate EV conversion applications which may, in turn, lead to more total EV conversions. However, it is difficult to predict market changes based on the proposed changes to the Procedure, as many considerations factor into manufacturers’ business decisions. While the aftermarket parts program does not recognize emission reductions and only grants exemptions that allow sales in California, the removal of each internal combustion engine and subsequent replacement with an EV conversion kit reduces emissions on a vehicle-by-vehicle basis. Therefore, the proposed amendments may have small but unquantifiable air quality benefits. Based on CARB’s review it is certain that the proposed amendments will not result in a significant adverse impact on the environment and this activity, therefore, is exempt from the California Environmental Quality Act (CEQA).

Because the proposed amendments are not anticipated to have an impact on emissions, there are no anticipated environmental justice impacts. These amendments would preserve

the emission reductions targeted by CARB's existing regulations for all communities, including environmental justice areas.

These proposed amendments directly affect businesses that are engaged in manufacturing aftermarket EV conversions. However, participation in this aftermarket program is voluntary from the perspective that no company is forced to do business in California. A business would presumably choose to participate in the California marketplace if it believed doing so would be financially advantageous. If an EV conversion company chooses to participate in the California marketplace, then it must ensure it complies with the requirements of Vehicle Code section 27156 and would be subject to this Procedure. Because there are no new requirements in this proposal, there will be no increased costs to businesses. Over a five-year period, the potential total cost savings for a typical business is estimated to be \$5,000 and the potential cost savings for a California small business is also estimated to be \$5,000, as there may be fewer applications and associated fees as a result of the modifications to the Procedure. No jobs are expected to be created or eliminated, including those for small businesses, and no effect is predicted for State agencies.

Staff Recommendations

The proposed amendments to the Procedure, as described herein, would provide requirements for aftermarket EV conversion applications in a clearer and streamlined way, reducing the ambiguities in the current Procedure and being more relevant to EV conversion kits. The modified Procedure will also provide the flexibility needed to meet the unique attributes of EV conversions. The proposed amendments do not add requirements but merely reorganize them and tailor them to EV conversions. The proposal provides clear requirements for preparing EV conversion applications and for CARB's evaluation of the product.

CARB staff recommends that the Board approve for adoption the amendments to CCR, title 13, division 3, chapter 4, article 2, section 2222, subdivision (e) and section 2224, subdivision (b) and the incorporated document, "Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines."

I. Introduction

This Staff Report: Initial Statement of Reasons (Staff Report) for amendments to the “Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines” (Procedure), incorporated by reference in California Code of Regulations (CCR), title 13, division 3, chapter 4, article 2, section 2222, subdivision (e) and section 2224, subdivision (b), provides the basis for CARB staff’s proposal to adopt amended requirements for electric vehicle (EV) conversions for use in on-road vehicles and engines, which when exempted, can be sold to California consumers. An aftermarket part is any component or device used on a vehicle or engine that was not part of that vehicle or engine when it was originally certified for sale. If the aftermarket part is not functionally identical to the original equipment part in all respects which in any way affect emissions, it is considered an add-on or modified part and has the potential to compromise the effectiveness of emission control systems and consequently impact emissions levels.

California has a long history of regulating tailpipe emissions from passenger cars and trucks. Since the late 1960’s, CARB has adopted and implemented standards for vehicles and engines to regulate their emissions. Vehicle and engine manufacturers have been able to comply with these increasingly stringent emission standards by developing and incorporating systems and components designed to reduce emissions (e.g., catalytic converters, exhaust gas recirculation systems, air injection systems, etc.). Since the proper operation of these emission control systems and components throughout the life of the vehicle or engine is essential in reducing emissions, any modifications that may impact the performance of a required vehicle or engine pollution control device is prohibited by Vehicle Code section 27156.

Vehicle Code section 27156 generally prohibits the installation, sale, offer for sale, or advertisement of emission-related parts for motor vehicles that alter or modify the original design or performance of the motor vehicle pollution control device or system. This section also grants CARB statutory authority to exempt aftermarket parts from the anti-tampering prohibitions in Vehicle Code section 27156 if it finds that such parts comply with Vehicle Code section 27156(h).

CARB uses the Procedure to assess add-on or modified parts including EV conversions. An EV conversion or EV conversion kit is a set of parts that converts a previously certified gasoline-, diesel-, or alternative-fueled vehicle to an electric vehicle. As such this Procedure currently provides the path for manufacturers of EV conversions to obtain exemptions to legally sell such parts in California.

The proposed amendments to the Procedure do not add any new requirements to EV conversion manufacturers. Rather, the existing requirements are reorganized, and language is clarified regarding how to appropriately structure and review applications for EV conversions. EV conversion applications will have a reduced burden of requirements, as the converted vehicles no longer have a combustion engine as a potential source of combustion emissions making emissions testing of the vehicle or engine superfluous.

II. Background

The Procedure, which was adopted by the Board in 2021, was designed to clarify, streamline, and update CARB's processes associated with a Vehicle Code section 27156 exemption. The older procedure, "Procedures for Exemption of Add-On and Modified Parts²," incorporated by reference in CCR, title 13, division 3, chapter 4, article 2, section 2222, subdivision (e) and section 2224, subdivision (b), adopted November 4, 1977, amended May 19, 1981, and last amended June 1, 1990, remains in effect for applications submitted prior to the implementation date of the 2021 procedure. The primary goal of the 2021 rulemaking was to provide clarity, streamline, and update the process; improve efficiency and transparency; and provide more structure, detail, and focus in the applications.

This was facilitated through the creation of nine categories of application for exemption (Category I through Category IX) based on product or application type. Category I is a specialized category open to all eligible aftermarket product types seeking certain actions (e.g., model year updates, part number change, etc.) that require much less application information than other categories. Categories II through VIII classify specific types of aftermarket parts. The ninth category, Category IX, is a "catch all" category for aftermarket parts that do not fall within Categories II through VIII. EV conversions are currently subject to the Category IX application requirements because they do not fit into any of the other categories.

Applications are further divided according to specific criteria of the vehicles or engines on which they are to be installed: single original equipment manufacturer vehicle or engine manufacturer, same vehicle or engine class, same engine configuration (e.g., I4, V6, V8, method of aspiration), same fuel type (flex-fuel is included with gasoline), same emissions control technologies as listed on vehicle or engine certification Executive Order, and same emission standards. Applications, then, are divided according to the combination of the product category and the vehicle or engine selection.

The Procedure includes general provisions and requirements, as well as category-specific requirements. Requirements include detailed instructions on what to provide in an application, what types of testing are required for the different categories, and how the application and data are evaluated. An application that meets the general requirements, as well as the category-specific requirements, if any, may be issued an Executive Order, granting an exemption from Vehicle Code section 27156.

EV conversions were not specifically addressed as a separate category in the Procedure, but as previously mentioned were included in Category IX. However, EV conversions are unlike any other add-on or modified parts in this category as they have no source of combustion emissions because they are replacing the original combustion engine of the vehicle rather than being used in conjunction with the original combustion engine. As such, the review of EV conversion applications is confounded by ambiguities in the submittal and assessment processes.

² California Air Resources Board (CARB). June 1, 1990. "Procedures for Exemption of Add-On and Modified Parts", incorporated by reference in California Code of Regulations, title 13, division 3, chapter 4, article 2, section 2222, subdivision (e) and section 2224, subdivision (b).
<https://ww3.arb.ca.gov/msprog/aftermkt/vc27156procedures.pdf>.

III. The Problem that the Proposal is Intended to Address

Under the current Procedure, EV conversions are categorized as Category IX, a “catch all” category that includes add-on or modified parts that do not fit into the other categories; some of these parts have the potential to adversely affect the emissions of a vehicle when installed. EV conversions are unique when compared to other add-on or modified parts as they completely replace the existing combustion engine, rather than being used in conjunction with it. The unique nature of an EV conversion was not specifically addressed by the current Procedure, as it did not account for issues and criteria that are specific to EV conversions. Therefore, many of the requirements for a Category IX aftermarket part intended to be used with the existing engine are not well suited or are confusing when applied to EV conversions. For example, section III(d) requires applications to be structured, and essentially split, according to criteria that are of little technical relevancy when assessing an EV conversion (e.g., engine family, emissions level, etc.).

These criteria, important when assessing how a non-EV conversion add-on or modified part can interact with the existing engine and aftertreatment system, are of little merit in the case of an EV conversion, as the original engine has been removed. Requirements such as these force an EV conversion manufacturer to spend time structuring an application narrow in scope based on criteria that are of limited or no value when assessing an EV conversion, and which may result in more applications and more associated application fees. This also means that an EV conversion manufacturer may see delays in getting its products to market. Additionally, other sections of the Procedure discussed later in this document pose issues for EV conversions due to ambiguity in how to apply them or are unsuitable for the assessment of an EV conversion. For example, similar considerations come into play when assessing on-board diagnostic (OBD) impacts. This lack of clarity has caused confusion among manufacturers.

The proposed amendments recognize the unique nature of EV conversions and the associated issues surrounding their review and potential approval by creating a new category, Category X, and corresponding section XI of the Procedure, which are explicitly for EV conversions. This new category will clearly identify the requirements for EV conversions to receive a Vehicle Code section 27156 exemption, thereby helping to clarify, simplify, and streamline the application process for a manufacturer of EV conversions. This may also potentially result in the need for fewer applications, facilitating their introduction into the marketplace, and also result in a potentially modest cost savings related to application fees. The amendments to the Procedure do not impose additional requirements to EV conversions as compared to the current Procedure, but rather restructure and modify the Procedure to clearly identify EV conversion requirements.

IV. The Specific Purpose and Rationale of Each Adoption, Amendment, or Repeal

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

1. Amendments to CCR, Title 13, Section 2222, Subsection (e)

Summary: This section authorizes the Executive Officer to exempt add-on and modified parts based on an evaluation conducted in accordance with the “Procedures for Exemption of Add-on and Modified Parts” or the “Procedure for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines,” which are incorporated by reference, based on the date of application submission. It also specifies when the Procedures were adopted and amended. An amended date associated with “Procedure for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines” is added to reflect this rulemaking.

Purpose: The purpose of this subsection is to identify the evaluation procedures that must be used to exempt an aftermarket part from the anti-tampering provisions of Vehicle Code section 27156. The dates notify the reader of key actions such as adoption and amendments of the Procedures. An amended date is added for “Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines” to create a new category for EV conversions.

Rationale: It is necessary to amend this subsection to add the date of amendment to the incorporated “Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines,” because it is being changed to incorporate a separate category for EV conversions, which is necessary to streamline the process, provide clarity, and remove irrelevant criteria for EV conversions, which remove internal combustion engines and regulated emissions associated with those engines.

2. Amendments to CCR, Title 13, Section 2224, Subsection (b)

Summary: This section specifies that the Executive Officer may order, for cause, the manufacturer of any add-on part or modified part subject to the provisions of this article to submit a reasonable number of parts typical of the manufacturer's production for testing and evaluation. It specifies how the parts will be evaluated and by what requirements. It specifies that the Executive Officer may invoke section 2225 if after a review of the results of any tests or evaluations conducted by the state board's staff and of any information submitted by the manufacturer, the Executive Officer finds that an add-on part or a modified part does not conform to the “Procedures for Exemption of Add-on and Modified Parts,” adopted by the state board on November 4, 1977, as amended June 1, 1990, for exemption applications submitted before January 1, 2022, or the “Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines,” adopted by the state board on June 29, 2021, hereby incorporated by reference, for exemption applications received on or after January 1, 2022. An amended date associated with “Procedure for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines” is added to reflect this rulemaking.

Purpose: The purpose of this subsection is to establish CARB’s right, for cause, to conduct surveillance testing and evaluation of aftermarket parts that have been granted an exemption from Vehicle Code section 27156. This subsection identifies the evaluation procedures that are the basis for this testing and evaluation by CARB. The dates notify the reader of key actions such as adoption and amendments of the Procedures. An amended date is added for "Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines."

Rationale: It is necessary to amend this subsection to add the date of amendment to the incorporated "Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines," because it is being changed to incorporate a procedure for a separate category for EV conversions, which is necessary to streamline the process, provide clarity, and remove irrelevant criteria for EV conversions, which remove internal combustion engines and regulated emissions associated with those engines..

B. List of Changes to Appendix B-1 – "Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines"

1. Section II – Definitions

Summary: This section provides definitions for the Procedure. Staff is proposing to include definitions to help clarify the application and review process specific for EV conversions, as well as clearly identify what types of aftermarket parts qualify as EV conversions by providing definitions:

- *"Electric Vehicle"* or *"EV"* means a motor vehicle that is powered solely by an electric motor drawing current from a rechargeable energy storage system, such as from storage batteries or other portable electrical energy storage devices, including hydrogen fuel cells, provided that:
 - (1) The vehicle is capable of drawing recharge energy from a source off the vehicle, such as residential electric service; and
 - (2) The vehicle does not have an onboard combustion engine or generator system as a means of providing electrical energy.
- *"Electric Vehicle Conversion"* or *"Electric Vehicle Conversion Kit"* is a set of parts that converts a previously certified gasoline-, diesel-, or alternative-fueled vehicle to an electric vehicle.
- *"Fuel-Fired Heater"* means a fuel-burning device that creates heat for the purpose of warming the passenger compartment of a vehicle but does not contribute to the propulsion of the vehicle.
- *"Hybrid Electric Vehicle"* or *"HEV"* means a motor vehicle which draws propulsion energy from onboard sources of stored energy that are both an internal combustion engine or heat engine using consumable fuel, and a

rechargeable energy storage system such as a battery, capacitor, hydraulic accumulator, or flywheel. This includes plug-in hybrid electric vehicles.³

Purpose: The purpose of this section is to establish definitions for terms used in this Procedure. Staff is proposing to add new definitions specific to the assessment of an EV and an EV conversion or EV conversion kit.

Rationale: It is necessary to define these terms, as they are used in the modifications to the Procedure. These definitions are specific to aftermarket EV conversions evaluated by this Procedure. They are necessary to improve the transparency, comprehensibility, and consistency of the proposed Procedure as well as providing notice to the regulated industry what qualifies as an EV, EV conversion, HEV, and fuel-fired heater so the industry will know what category to choose when applying for an exemption.

2. Section III - Application Submission Requirements

Summary: This section states that manufacturers' applications for an exemption must contain the specified information to be complete. Manufacturers are required to pick an appropriate application category, provide required information, and limit the scope of applicable vehicles or engines. Staff is proposing changes to only one subsection, III(a)(9), and adding a new subsection, III(a)(10), as described, below.

Purpose: The purpose of this section is to establish application categories and application requirements that a manufacturer of an aftermarket part must complete when requesting an exemption of a device from the prohibitions of Vehicle Code section 27156. Staff is proposing to remove EV conversions from Category IX and to create a new application category, Category X, to clarify, simplify, and further streamline the process of exemption applications for EV conversions. Category X is exclusively for EV conversions.

Rationale: It is necessary to clearly identify what requirements EV conversion manufacturers must follow to receive a Vehicle Code section 27156 exemption, because some provisions of the current Procedure are not easily applied to EV conversions or are unclear as far as what the manufacturer must do to comply. This change will provide clarity, transparency, and streamline the process for EV conversions.

(1) Section III (a) – Category Selection

Summary: This section provides a list of categories from which manufacturers are required to choose when submitting an application. Staff is proposing changes to only one subsection, III(a)(9), and adding a new subsection, III(a)(10).

Purpose: The purpose of this section is to establish application categories (Category I through Category IX) and to define the scope of each category, i.e., which types of aftermarket parts fall into which category. This section also informs

³ This definition is taken from Code of Federal Regulations, Title 40, Subchapter C, Part 86, Subpart S, Section 86.1803-01, June 29, 2021.

manufacturers that they are required to pick an appropriate application category, provide required information in a described format, and define the scope of included vehicles or engines. Staff proposes to establish an additional category (Category X) for EV conversions.

Rationale: Currently EV conversions fall into Category IX, which is a “catch all” category for products that do not meet the requirements for any other category. The other aftermarket parts (Categories II through IX not including EV conversions) are unlike EV conversions, as they are used in conjunction with the existing engine, whereas EV conversions replace it. The current requirements for Category IX applications are causing confusion for manufacturers, as some criteria are not optimally suited to use to assess EV conversions. It is necessary to establish an EV-specific category by modifying this section to designate a category exclusively for them and explain what qualifies as an EV conversion. This change is in agreement with the rationale for adding the nine categories to the recently approved 2021 Procedure, which was that aftermarket parts have become more specialized and sophisticated, necessitating more tailored application criteria. Therefore, the categories were established to simplify and streamline the application process and the proposed amendments remove irrelevant criteria for EV conversions.

(2) Section III(a)(9) Category IX

Summary: This section applies to parts not covered by Categories II through VIII. Staff added language to exclude the new Category X, as Category X applications are dedicated to EV conversions which, in turn, are now excluded from Category IX.

Purpose: The purpose of this section is to specify the types of aftermarket parts that are included in this category. Category IX is a previously established category that applies to manufacturers that are requesting an exemption for parts that do not fit in Category II through Category VIII. Since staff is proposing to establish an additional category, Category X, exclusively for EV conversions, Category X must be excluded from Category IX along with Categories II through VIII.

Rationale: This is necessary to clarify that the new Category X, and the associated type of aftermarket part classified as Category X (EV conversions), are now separate from Category IX and must be excluded from Category IX. This provides clarity such that an EV conversion manufacturer does not incorrectly submit an application for category IX for its product.

(3) Section III(a)(10) Category X

Summary: This is a new category that applies only to EV conversions that have no sources of combustion (e.g., engine, fuel-fired heater) and emit no regulated emissions. The requirements for EV conversions are specified in Sections VI and XI of this Procedure. Sections III(b) through V and VII through X are not applicable to EV conversions, except as specified in Section XI.

Purpose: The purpose of this added section is to create a new category, Category X, that is specifically for EV conversions. It also specifies the requirements of the Procedure with which EV conversion applications must comply and that criteria for EV conversions are specified in Sections VI and XI.

Rationale: It is necessary to create a new category to specifically address the unique attributes of EV conversions. It is also necessary for accuracy and clarity to specify what qualifies as an EV conversion for this category and which sections of the Procedure must be followed. This will assist manufacturers in providing the correct information in support of their applications and not submitting applications and materials for products that do not qualify as Category X EV conversions.

3. Section VI – Criteria for Category I Application Requests

Summary: Category I applications are for products previously issued Executive Orders when manufacturers are requesting only one of the following actions: adding part number(s), changing device name(s), adding model years for carryover vehicle(s) or engine(s), modifying or adding private label(s), extending coverage to subsidiaries, or consolidating previously issued exemption Executive Orders. Category I applies to any type of product covered by the various categories. Staff is proposing changes to only two subsections: VI(b) and VI(d)(1)(B).

Purpose: The purpose of this section is to clarify and modify the evaluation criteria for Category 1 applications to incorporate language tailored to EV conversions. Category I is a pre-existing category that applies to any type of product, provided the requested action meets the conditions of this category. Category I can therefore encompass multiple types of products typically associated with other categories. Staff is proposing changes to only two subsections, VI(b) and VI(d)(1)(B).

Rationale: These modifications are necessary to provide clear and accurate guidance to Category I applicants who are seeking exemptions for EV conversions as well as to remove irrelevant criteria and streamline the process.

(1) Section VI(b) - Model-Year Additions on Carryover Vehicle(s) or Engine(s)

Summary: This section discusses model-year additions on carryover vehicle(s) or engine(s). Criteria specific to EV conversions have been added to this section.

Purpose: The purpose of this section is to explain how CARB will evaluate an application for this type of request. Staff is proposing to add language to specify how a request of this type for an EV conversion is evaluated.

Rationale: This is necessary to distinguish the evaluation criteria for EV conversions from those of other aftermarket parts, as some of the criteria that are important when assessing other aftermarket parts are not relevant to the technologies employed by EV conversions. Evaluation criteria such as emission certification standards and worst-case vehicle(s) or engine(s) tested are not pertinent to an EV conversion, as the engine and other sources of regulated emissions have been removed. Thus, evaluation criteria appropriate for an EV conversion has been listed with added flexibility compared to other existing exemption types, which is limited to the information used in the prior exemption Executive Order(s). This path is an important option for EV conversion manufacturers as some may have preexisting Executive Orders, which are limited in model year scope, and they may want to expand them to include additional vehicles. Also, nothing in the proposed amendments prohibits a manufacturer from limiting the scope of its request to a specific vehicle or model year range based on factors such its business model,

familiarity with the vehicles across all model years, and potential market opportunities, then applying to add more model years later. Modifying the language in this section preserves the Category I path for EV conversions, while providing more specificity and clarity as to the evaluation process.

(2) Section VI(d)(1)(B) - Consolidation of Executive Orders

Summary: This section explains how a manufacturer can consolidate its previously issued exemption Executive Orders into a new issued exemption Executive Order when certain criteria are met. The section has been revised to reflect that EV conversions are exempt from section VI(d)(1)(B).

Purpose: The purpose of section VI(d) is to specify how a manufacturer can consolidate its previously issued exemption Executive Orders into a new issued exemption Executive Order. A statement has been added to one subsection, VI(d)(1)(B), to state that EV conversions are exempt from that subsection.

Rationale: This is necessary to clearly indicate that EV conversion applications are exempted from complying with this section, such that the manufacturer knows what to include in its application. This will facilitate the manufacturer being able to provide compliant and appropriately structured applications. Since the original engine is no longer present, the interaction between the kit and the engine is not relevant to assess, and differences between makes of vehicles is moot when assessing the kits or the consolidation of Executive Orders. Further, future EV conversion applications will no longer be broken down by original equipment manufacturer (OEM), so requiring this for Category I applications would create inconsistency.

4. Section XI - Requirements for Category X Application Requests

Summary: Section XI is added to provide explicit application, evaluation, and administrative requirements that are specifically for Category X EV conversions. These requirements are akin to the requirements of sections III, VII, VIII, and IX but have been tailored for EV conversions.

Purpose: The purpose of this added section is to specify the requirements for EV conversions. Staff is proposing sections that are akin to requirements in sections III(b) through V and sections VII through IX, but have been customized for the specialized nature of an EV conversion. No new requirements are imposed on EV conversion applications. Rather, the existing requirements are reorganized, and language is clarified in this section regarding how certain provisions apply to EV conversions. Due to the nature of EV conversions, this may result in less burdensome requirements as compared to the version of the Procedure adopted on July 29, 2021.

Rationale: This is necessary because some requirements of the Procedure are not relevant to EV conversions so maintaining those provisions for EV conversions creates confusion. This section provides a clear path for manufacturers to follow. The current Procedure's structure is contributing to unnecessary confusion for EV conversion manufacturers, as the Procedure does not specifically address EV conversions but places them in a "catch all" category. This, coupled with the fact

that EV conversions are significantly different than other aftermarket parts in that they completely remove the original engine, has resulted in incorrect criteria being potentially applied to EV conversions, difficulties in submitting applications due to confusion over how to apply the requirements of the Procedure, and delays in processing these applications as additional effort is needed to assist manufacturers. With EV conversions now placed in its own category, section XI will provide clarity regarding the pertinent requirements.

(1) Section XI(a)

Summary: This section specifies that section XI applies only to EV conversions that have no sources of combustion (e.g., engine, fuel-fired heater) and emit no regulated emissions, and that it does not apply to EV conversions of vehicles originally certified as electric vehicles or hybrid electric vehicles.

Purpose: This section identifies the type of product that qualifies for Category X as EV conversions. This category would not include an EV conversion that has any type of combustion engine, an EV conversion that emits regulated emissions, or EV conversions of vehicles originally certified as electric vehicles or hybrid electric vehicles.

Rationale: It is necessary to clearly identify the type of product to which this section is applicable (EV conversions) to avoid inappropriate product types being submitted as Category X.

(2) Section XI(b) – Application Submission Requirements

Summary: This section contains subsections that delineate the application submission requirements.

Purpose: The purpose of this section is to establish requirements that a manufacturer of EV conversions must complete when requesting an exemption from the prohibitions of Vehicle Code section 27156.

Rationale: It is necessary to clearly identify what the requirements are for EV conversions to receive a Vehicle Code section 27156 exemption, because some provisions of the current Procedure are not pertinent or are ambiguous in how they apply to EV conversions. Manufacturers will be able to identify what information and requirements apply to EV conversions, which will facilitate the submission of robust applications that meet the requirements of the Procedure.

(3) Section XI(b)(1) - Application Requirements

Summary: This section states what the EV conversion application must contain.

Purpose: The purpose of this section is to identify and specify the information that must be submitted in the application.

Rationale: It is necessary to specify for the manufacturer what information must be provided, and to do so in a clear way so that the manufacturer understands what to submit and submits a complete application. It is necessary to add this section within the section pertaining to EV conversions, as the requirements in III(b) through III(d) of the Procedure are not tailored to EV conversions. The

requirements have been reorganized with the language modified to clearly identify EV conversion requirements. This is necessary to ensure appropriate information is provided, as a complete and accurate application will facilitate the review process.

(4) Section XI(b)(1)(A) - Application Requirements

Summary: This section references Section III(1)(b) which specifies the contact information to be included in the application.

Purpose: It states that the application must contain the information required by section III(b)(1) of the Procedure. This section requires the identification of the responsible parties and the associated contact information.

Rationale: It is necessary to identify where in the Procedure to find the requirements regarding the information that must be supplied to identify all responsible parties connected with the application. This provides clear direction to the regulated community and ensures complete applications are submitted.

(5) Section XI(b)(1)(B) - Application Requirements

Summary: This section specifies the vehicles or engines that the manufacturer is including in the application to be covered by the Executive Order.

Purpose: The purpose of this section is to require identification of the vehicles or engines included in the application.

Rationale: It is necessary to define the scope of the application to identify the vehicles or engines included. Failure to clearly identify the desired vehicle or engines could result in vehicles or engines being excluded from the Executive Order that the manufacturer intended to be included, or incorrect vehicles or engines being included. Each scenario could result in the need to reissue the Executive Order or potentially result in delays to market for the product. This information is also needed for section XI(b)(3), which requires applications be categorized by certain factors and allows vehicles to be excluded from the application. The vehicle coverage requirements are different than other categories because all sources of emissions must be removed, so there is no benefit to the Executive Officer's evaluation of the emission potential of the add-on or modified part from its interaction with the existing vehicle or engine's emission control components.

(6) Section XI(b)(1)(C)

Summary: This section requires a list of parts that comprise the EV conversion kit(s) such that staff have clear information regarding what comprises the EV conversion kit.

Purpose: The purpose of this section is to require a list of parts that comprise the EV conversion kit(s) be provided as part of the application. This list may include specific part numbers, kit numbers, or both, as determined by the manufacturer.

Rationale: It is necessary to clearly delineate all of the parts that go into the EV conversion kit so that CARB can perform the evaluation required by section XI(c). It is essential that staff know the parts of the kit to fully assess the EV conversion. However, compared to the other nine categories of applications, specific part

numbers are not being required for EV conversions because the applicable vehicle coverage requirements in section XI(b)(1)(B) are much broader than for the other categories, which would make a comprehensive part number list burdensome to generate. Further, specific part numbers are not required because EV conversions must not include any sources of combustion or regulated emissions, so the interaction of the EV conversion with existing emission control components is no longer possible.

(7) Section XI(b)(1)(D)

Summary: This section requires the submission of a generic installation guide that includes installation instructions, diagrams, pictures, and schematics for proper installations. It also requires that installation guides must clearly indicate that all combustion sources and fuel system components (including any fuel tank, lines, and evaporative system component) must be removed prior to installation of the EV conversion kit. It allows manufacturers to provide more specific installation guides if they choose to do so.

Purpose: The purpose of this section is to require an installation guide to be provided as part of the application. This provision specifies what must be included in the installation guide, including installation instructions, diagrams, pictures, schematics, and a statement that all sources of combustion and fuel system components must be removed prior to installation.

Rationale: It is necessary to require this information to ensure that the EV conversion kit is properly installed and that no sources of combustion or regulated emissions remain. Proper installation and the prohibition of combustion sources is essential to ensuring a functioning EV conversion that emits no regulated emissions. Further, fuel system components, including any fuel tank, lines, and evaporative system components can be a source of regulated emissions, so these must also be included as parts to be removed in the installation instructions. As the vehicle list is broader for EV conversions, vehicle specific installation instructions are not required, but may be included at the manufacturer's discretion.

(8) Section XI(b)(1)(E)

Summary: This section requires a general description of the EV conversion kit to assist CARB staff in understanding its operation, including technical operating principles, dimensional drawings and schematics of a kit, and material specifications.

Purpose: The purpose of this section is to require a description of the EV conversion to be submitted as part of the application, such that the structure and operation of the EV conversion kit can be identified and understood.

Rationale: It is necessary to require this information so that CARB can understand the operating principles and perform the evaluation required by section XI(c). Having a proper understanding of the EV conversion kit and how it works is essential to staff's ability to perform an adequate evaluation of the EV conversion kit.

(9) Section XI(b)(1)(F)

Summary: This section specifies that a facsimile of the exemption label for the EV conversion be submitted.

Purpose: The purpose of this section is to require that the application submittal must include a sample label to demonstrate that the detailed labeling requirements have been met.

Rationale: It is necessary to require a label facsimile so that CARB can verify that it will meet all of the labeling requirements of section XI(e). Labels are necessary to clearly indicate that the aftermarket part has received an exemption from CARB and therefore has been exempted from California's anti-tampering laws, which will be needed for enforcement purposes.

(10) Section XI(b)(1)(G)

Summary: This section specifies that the requirements of section III(b)(7) apply to EV conversions. Section III(b)(7) states that a sample kit or part must be provided when needed to assist in understanding the device's operation and effects on emissions.

Purpose: The purpose of this section is to require that section III(b)(7) applies to EV conversions. This section requires a sample kit or part be provided when needed to assist CARB in understanding the EV conversion's operation.

Rationale: It is necessary to reserve the right to require a sample EV conversion kit or part be provided when needed. The examination of the EV conversion kit or part can assist staff in its evaluation of the product, by aiding in understanding the device's operation and potential effects on emissions. It is possible that a device may be submitted as an EV conversion where the information or description indicates that it may have an emission source or be otherwise inappropriate as a Category X product. Having the ability to assess the actual product that will be offered for sale can aid CARB staff in determining product design, function, and proper categorization as Category X. This is necessary to ensure there are no regulated emissions.

(11) Section XI(b)(1)(H)

Summary: This section requires the submission of a signed attestation by the manufacturer of the following: That the information is true, accurate, and complete, and that to the best of the manufacturer's knowledge, installation of the EV conversion kit on a covered vehicle or engine will not cause regulated emissions to increase beyond the certification standards to which the vehicle or engine was certified including any noxious or toxic matter.

Purpose: The purpose of this section is to ensure accountability of the manufacturer regarding its application submittal. This is a long-standing requirement that was in the older procedure and was also included in the 2021 rulemaking. However, the attestation requirement has been updated for EV conversions to remove the requirement that the manufacturer attest that the EV conversion will not cause emission control components and OBD to function differently than as designed by the vehicle or engine manufacturer.

Rationale: It is necessary to ensure that the application presents an accurate reflection of the EV conversion kit such that staff's evaluation is based on an accurate representation of the product. Further, the factors relating to the emission control system operation and OBD are impossible or very unlikely to be met by an EV conversion because the original engine and other emission control components will be removed when the EV conversion is installed, including the OBD system. Therefore, this attestation requirement would be inappropriate for EV conversion manufacturers.

(12) Section XI(b)(2) - Application and Letter of Intent Submission

Summary: This section states that the requirements of section III(c) apply to EV conversions. Section III(c) provides information regarding application submittal and letter of intent. It identifies to whom and where to send the application and suggests that manufactures can submit a letter of intent regarding upcoming application plans.

Purpose: The purpose of this section is to require that the application must contain the information required by section III(c). This section identifies where and to whom the application be submitted. It also recommends that a letter of intent be provided. This is a document that provides information on the aftermarket parts applications a manufacturer intends to submit during the following 12 months and provides information on the devices for which it intends to seek exemption.

Rationale: This is necessary to allow manufacturers to know where and how to send an application as well as the option of providing a letter of intent. This is necessary to ensure applications are directed to the correct program within CARB and assist manufacturers that wish to notify CARB of future products and applications. This is a requirement for all other categories of applications and is appropriate for EV conversion applications as well.

(13) Section XI(b)(3) - Vehicle or Engine Coverage Requirements

Summary: This section includes subsections that require applications to be grouped according to specified criteria and allows manufacturers to voluntarily exclude vehicles or engines or utilize other grouping criteria.

Purpose: The purpose of this section is to provide guidance on application structure relative to target vehicle or engine categories.

Rationale: It is necessary to ensure applications clearly identify the desired category such that CARB staff can determine if the requested vehicles and engines meet the criteria of the category per section XI(b)(3)(A) or the alternative option presented in section XI(b)(3)(B). Failure to clearly identify the desired category could result in omissions or incorrect vehicle coverage.

(14) Section XI(b)(3)(A)

Summary: This section organizes applications into five groups, based primarily on gross vehicular weight rating.

Purpose: The purpose of this section is to indicate how applications must be organized. Applications must be organized according to the categories listed in

sections XI(b)(3)(A)1 through XI(b)(3)(A)5 or an alternative grouping method identified in the next section. These categories include:

1. Passenger cars;
2. Any vehicle with a gross vehicular weight rating (GVWR) of 8,500 pounds or less that does not meet the definition of passenger car;
3. Any vehicle with a GVWR of 8,501 through 14,000 pounds that does not meet the definition of passenger car;
4. Any vehicle with a GVWR over 14,000 pounds that does not meet the definition of passenger car; or
5. Any vehicle, excluding motorcycles, certified for on-road use that is not included in any of the aforementioned categories.

Rationale: This categorization of vehicles by GVWR is necessary to ensure that EV conversion kits fit the vehicle(s) selected. Staff's categories reflect a simplified version of the way CARB delineates vehicle classifications (e.g., passenger car, light-duty truck, medium-duty vehicle, etc.) by using GVWR ranges instead, as the definitions of some classifications have changed with model years. This is intended to simplify the classification process for the manufacturer. In the event that the manufacturer would like to group vehicles in a different manner, section XI(b)(3)(B) permits the manufacturer to use a different grouping scheme if certain conditions contained therein are met. It is a reasonable expectation that the same kit could fit multiple vehicles within the same class, as the battery size, motor torque requirements, size of the system, etc., could be similar. For example, a kit that is designed to convert a large diesel truck (e.g., GVWR over 14,000 pounds) is likely to fit multiple different chassis and replace multiple different associated engines within that same category. However, the same kit is unlikely to physically fit in any passenger car due to the physical size difference between a large diesel truck and a passenger car.

(15) Section XI(b)(3)(B)

Summary: This section and its sub-sections, 1 through 3, permit an alternative to the vehicle groupings presented in section XI(b)(3)(A).

Purpose: The purpose of this section is to allow manufacturers additional flexibility when submitting applications. Instead of following the groupings in section XI(b)(3)(A), a manufacturer may prepare and organize their application with an alternative grouping scheme that meets certain criteria.

Rationale: It is necessary to allow manufacturers flexibility in the case that a kit overlaps more than one of the groupings listed in section XI(b)(3)(A). An example of this might be a kit that spans both passenger cars (group 1) and light-duty trucks (group 2). It is reasonable that the same kit might fit a group comprised of both specific passenger cars and specific light-duty trucks. This section gives manufacturers more flexibility in the grouping of vehicles in the application, as long as the manufacturer clearly defines the alternative grouping scheme, explains the logic and rationale of this grouping scheme, and selects only vehicles in which the corresponding kit(s) will physically fit. This is necessary to ensure that the manufacturer has determined the kit(s) will fit all requested vehicles so that incompatible combinations will not be included in the application.

(16) Section XI(b)(3)(C)

Summary: This section provides an option to manufacturers to exclude any vehicles from the application.

Purpose: The purpose of this section is to allow a manufacturer to have the ability to exclude certain vehicles from its vehicle selection. A manufacturer may choose to voluntarily exclude certain vehicles. For example, an application could include all passenger cars of a particular manufacturer except one model.

Rationale: This is necessary to allow a manufacturer the flexibility to voluntarily exclude vehicles that it may not wish to include in its requested coverage. It may do this for a variety of reasons such as a particular vehicle is extremely rare or nonexistent, that a vehicle is a suboptimal candidate for the EV conversion kit, or for other business or technical considerations.

(17) Section XI(c) - Criteria for EV Conversion Application Requests

Summary: The criteria for evaluating an exemption application are set forth in this section. The criteria requires that the converted vehicle must have no source of regulated emissions and the EV conversion will be evaluated based on the review of the application, any other submitted materials (see additional information that manufacturers may include), the regulation emissions potential of the technology, and whether the application meets all other applicable requirements of the Procedure.

Purpose: The purpose of this section is to set forth the criteria by which EV conversions will be evaluated. These criteria are explained in sections XI(c)(1) and XI(c)(2).

Rationale: It is necessary to identify and characterize the criteria that will be used to evaluate the EV conversion such that there are guidelines to follow for review, such that there will not be regulated emissions associated with the EV conversion, and that the Executive Officer reviews the materials within the application.

(18) Section XI(c)(1)

Summary: This section specifies that the converted vehicle must have no source of regulated emissions.

Purpose: The purpose of this section is to require that the EV conversion must have no source of regulated emissions. As explained in section III(a)(10) of the Procedure, Category X includes only EV conversions that have no sources of combustion (e.g., engine, fuel-fired heater) and emit no regulated emissions.

Rationale: It is necessary to explicitly state that the converted vehicle emit no regulated emissions, as it is a requirement for an application to be classified as Category X. By providing clarity regarding this, applications for incorrect product types will not be accidentally submitted under this category.

(19) Section XI(c)(2)

Summary: This section specifies that the EV conversion will be evaluated based

on a review of the application, any other submitted materials, the regulated emissions potential of the technology, and that the application meets all other applicable requirements of the Procedure.

Purpose: The purpose of this section is to specify the factors on which the EV conversion will be evaluated: a review of the application, any other submitted materials, the regulated emissions potential of the technology, and that the application meets all requirements of the Procedure.

Rationale: It is necessary to identify and characterize the criteria that will be used to evaluate the EV conversion such that there are guidelines to follow for review. It is necessary for the EV conversion to meet all of the requirements to ensure a product that will not emit regulated emissions.

(20) Section XI(d) – Action on Application

Summary: This section specifies the factors that will determine if the EV conversion meets the requirements of this Procedure.

Purpose: The purpose of this section is to specify that the Executive Officer shall utilize information submitted during the review and the evaluation conducted according to XI(c) to determine if the EV conversion meets the requirements of the Procedure.

Rationale: It is necessary to list the factors that are to be used to make a determination regarding the application. It is necessary to state specific factors for reviewing EV conversion applications that are different than for other categories of applications. Many aftermarket parts have a potential adverse effect on emissions, but EV conversions do not as all sources of combustion and other regulated emissions must be removed. Thus, factors such as emissions levels, which are a consideration for other aftermarket parts, are not germane to EV conversions.

(21) Section XI(e) – Labeling

Summary: This section requires the manufacturer to provide a label that meets certain criteria and specifies what must be included on the label.

Purpose: The purpose of this section is to spell out the requirements for labeling of the EV conversion. It specifies the placement, the information on the label, and the durability of the label itself.

Rationale: It is necessary to specify detailed requirements concerning the label. It is necessary to identify the CARB Executive Order number such that a visual inspection would result in correct identification of the EV conversion kit and that it held an exemption from the tampering provisions of Vehicle Code section 27156. It is essential for owners and others to be able to identify the kits to avoid confusion and potential enforcement action.

(22) Section XI(f) - Issuing an Exemption Executive Order

Summary: This section specifies the conditions under which an Executive Order will be issued, denied, or revoked. It also specifies that the manufacturer shall not:

1. Use the Executive Order as an endorsement or approval by CARB;
2. Market the EV conversion(s) using any identification other than that shown on the Executive Order;
3. Apply the Executive Order to parts sold prior to the date shown on the Executive Order;
4. Market the EV conversion kit(s) for an application other than those listed on the Executive Order;
5. Offer for sale, or advertise any component of an applicable EV conversion kit as an individual device; or
6. Advertise the product as capable of reducing emissions.

Purpose: The purpose of this section is to explain that if the EV conversion kit is found to comply with the requirements concerning emissions that are set forth in Vehicle Code section 27156 and the Procedure, an Executive Order will be issued. This section also reiterates for clarity that the determination will be based on the information submitted during the application review process and the evaluation conducted. This section also lists restrictions, such as not using the Executive Order as an endorsement or approval by CARB. This section also gives the conditions under which the application would be denied or the Executive Order revoked.

Rationale: It is necessary for consistency to restate here the terms under which an Executive Order is issued, the proper use of the Executive Order, and explicitly state the terms under which it could be denied or revoked. This section is akin to section IX of the existing procedure but is tailored to the unique requirements of EV conversions. It is necessary to add this section, as section IX of the existing Procedure includes requirements that are not germane to EV conversions. Language relevant to EV conversions has been included, while not including terms that are not pertinent to EV conversions. It is essential to clearly inform the manufacturer of its obligations and its rights concerning revocation.

V. Benefits Anticipated from the Regulatory Action, Including the Benefits or Goals Provided in the Authorizing Statute

The overall objective of the proposed amendments to the Procedure is to provide clarity and further streamline the Procedure to assist aftermarket parts manufacturers of EV conversions in the process of submitting an application for exemption. This will be accomplished by the creation of a Category X application that clearly specifies the requirements for these EV conversions, potentially facilitating the introduction of more EV conversions into the marketplace which, in turn, supports CARB's EV and air quality goals. In addition, the proposed amendments may enable manufacturers of EV conversions to submit fewer applications for exemptions, thereby creating a direct cost savings to the manufacturer. To meet CARB's air quality and climate change goals (carbon neutrality), it is necessary to reduce emissions from all sources.

VI. Air Quality

The proposed amendments may have a small air quality benefit on a vehicle-by-vehicle basis, as an internal combustion engine is replaced with an EV conversion. The modifications do not create any requirements in the Procedure, but the streamlining and clarification of the process is expected to facilitate EV conversion applications which may, in turn, lead to more total EV conversions. Reducing reliance on gasoline engines can help achieve air quality and climate goals. However, the potential benefit is unquantifiable as it is difficult to predict market changes. The number of EV conversions sold is based on many more factors in addition to ease of exemption application, including the manufacturer's business model, the overall public interest in EV conversions, and other factors.

VII. Environmental Analysis

A. Introduction

This chapter provides the basis for CARB's determination that the proposed amendments are exempt from the requirements of the California Environmental Quality Act (CEQA). A brief explanation of this determination is provided in section B below. CARB'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 CEQA (Cal. Code Regs., tit. 14 § 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. CARB, 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 (Cal. Code Regs., tit. 17 §§ 60000-60008). If the amendments are finalized, a Notice of Exemption will be filed with the Office of the Secretary for the Natural Resources Agency or public inspection.

B. Analysis

CARB has determined that the proposed amendments are exempt from CEQA under the "general rule" or "common sense" exemption (Cal. Code Regs., tit. 14 § 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, which apply to EV conversions, do not create any new requirements for these types of aftermarket products. Rather, they clarify and streamline the current requirements for receiving an exemption from Vehicle Code section 27156, as set forth in the Procedure. EV conversion applications will have a reduced burden of requirements, as the converted vehicles no longer have a combustion engine to be subject to emission standards, emissions testing, and other related considerations. Based on CARB's review 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.

VIII. Environmental Justice

State law defines environmental justice as the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (Gov. Code, § 65040.12, subd. (e)(1)). Environmental justice includes, but is not limited to, all of the following: (A) The availability of a healthy environment for all people; (B) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities; (C) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decision making process; and (D) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions (Gov. Code, § 65040.12, subd. (e)(2)).

The Board approved its Environmental Justice Policies and Actions (Policies) on December 13, 2001, to establish a framework for incorporating environmental justice into CARB's programs consistent with the directives of State law. These policies apply to all communities in California, but are intended to address the disproportionate environmental exposure burden borne by low-income communities and communities of color. Environmental justice is one of CARB's core values and fundamental to achieving its mission.

No changes are being proposed to the Procedure that impact smog-forming emissions, public health, or greenhouse gas emissions, because they just clarify and further streamline the Procedure for manufacturers of EV conversions to receive an exemption from the prohibitions of Vehicle Code section 27156. Therefore, the proposed amendments are not anticipated to have environmental justice impacts. These amendments would preserve the emission reductions targeted by CARB's existing regulations for all communities, including environmental justice areas.

IX. Economic Impacts Assessment

CARB staff is proposing amendments to the Procedure, adopted June 29, 2021 and the regulations that incorporate the Procedure. The Procedure provides a pathway for aftermarket parts manufacturers to receive an exemption from the prohibitions of Vehicle Code section 27156 for aftermarket parts that have the potential to affect emissions.

The new proposed amendment to the Procedure will clarify, streamline, and update the CARB processes associated with a Vehicle Code section 27156 exemption for EV conversion kits that convert internal combustion engine vehicles to electric operation through the creation of a new "Category X" classification. The proposed amendments do not apply to EV conversion kits that include a fuel-fired heater, auxiliary power unit that uses a combustion engine, or other sources of regulated emissions. They also do not apply to vehicles that were originally certified as electric vehicles or hybrid electric vehicles.

These proposed amendments directly affect businesses that are engaged in manufacturing aftermarket EV conversions. Since 2000, a total of 11 companies have filed applications and have received exemptions for aftermarket EV conversions. Four of these are California businesses. One of the four is a California small business. Six additional companies have

submitted applications to receive approval for EV conversions. These are currently under review. Three are California businesses, and all three are California small businesses. So, these proposed amendments are estimated to directly impact approximately 11 to 17 businesses. Approximately 36 to 41 percent of these are California businesses and 9 to 24 percent of these are California small businesses. The first numbers in the percent ranges are the number of businesses that have currently received an exemption. The second numbers in the percent ranges includes the number of businesses that have applied for but have not yet received an exemption.

The only potential economic impact of the proposed amendments may be a cost savings to businesses if a business is able to submit fewer applications to exempt its EV conversions, thereby, paying fewer application fees. (The application fee for an EV conversion is \$1,290.⁴) This potential cost savings is not expected to be passed through to purchasers of the EV conversions.

It is difficult to definitively predict how many manufacturers may choose to participate and how they may structure submitted applications, as this is based on each manufacture's business model, the types of vehicles for which it may wish to develop an EV conversion kit, the ability and resources to develop a kit for a given vehicle type, competition in the marketplace, and other factors. Additionally, no manufacturer is required to participate in this program as they can choose to market and sell products outside of California. Only those EV conversion kit manufacturers that choose to participate in the California market must ensure they comply with the requirements of Vehicle Code section 27156 and would be subject to this Procedure. Although the modifications to the Procedure allow for a broader application, it is possible that some manufacturers would not choose to submit an application with such scope and would submit one similar to what would have been required per the current Procedure. However, in theory, the modifications do allow fewer applications to be submitted which is expected to result in a small cost savings to manufacturers of EV conversions.

Estimated Cost Savings to a Typical Business

The approximate cost savings to a typical business from the proposed amendments has been estimated by looking at the number of applications that were submitted for approval by CARB in 2021. This single year has been chosen as the basis for this estimation, because 2021 is the most recent full year that manufacturers were allowed to apply for an exemption under the previous evaluation procedure. The previous evaluation procedure allowed applications that were broader in scope than those allowed under the current Procedure, which allowed manufacturers to submit fewer applications than are required today. Under the current evaluation Procedure, which has been effective since January 1, 2022, applications are more narrowly focused. So, oftentimes a manufacturer is required to submit multiple applications and pay multiple associated application fees for an exemption that would have only required one application under the old procedure. The proposed amendments will, once again, allow manufacturers to submit broad applications for EV conversions.

In 2021, four applications were submitted for EV conversions under the previous procedure. Staff estimated that under the current Procedure, on average each of these applications would be split into ten applications. In total, the number of applications that manufacturers

⁴ California Code of Regulations, title 13, division 3, chapter 16, article 5, section 2910.

would be required to submit is estimated to increase from four applications under the previous procedure to 40 applications under the current Procedure. Assuming that the number of applications that a manufacturer of EV conversions will be required to submit under the proposed amendments is comparable to the number required under the previous procedure, the cost savings to that a manufacturer would be calculated as follows:

Use an application fee of \$1,290 per application.

Assume the number of applications submitted under the proposed amendments equals the number of applications submitted under the previous procedure = 4.

Assume those 4 applications would split into 40 applications under the current Procedure.

The total application costs without the proposed amendments under the current Procedure are estimated to be:

$$40 \text{ (applications)} * \$1,290 \text{ (fee per application)} = \$51,600$$

$$36 \text{ (fewer applications submitted)} * \$1,290 \text{ (fee per application)} = \$46,440$$

The average cost savings per application with the proposed amendments, due to these not being split, are estimated to be:

$$\$46,440 \div 4 = \$11,610$$

As mentioned above, a total of 11 companies (typical business) have filed applications and have received exemptions for aftermarket EV conversions since 2000. The total number of exemptions issued to these businesses is 22, or two per company. Assuming the average cost savings per application with the proposed amendments, due to these not being split equals \$11,610, the total cost savings for the 11 companies (typical business) is estimated to be:

$$22 \text{ (applications/exemptions)} * \$11,610 \text{ (savings per application)} = \$255,420, \text{ or}$$

\$255,420 ÷ 11 companies = \$23,220 savings per typical business over a 23-year period (2000 through 2022) or approximately \$1,000 per year per typical business

Assuming that all 17 manufacturers that have submitted at least one application for an EV conversion to receive an exemption from the prohibitions of Vehicle Code section 27156 since 2000 continue to produce these conversions and submit an average of two applications per year, the estimated total cost savings to these businesses equals:

$$\$1,000 \text{ per year per manufacturer} * 17 \text{ manufacturers} = \$17,000 \text{ per year}$$

Thus, over a five-year period, the total cost savings for a typical business is expected to be \$5,000, and the total cost savings for all typical businesses is estimated to range from \$55,000 to \$85,000. The first number in the savings range is the number of businesses that have currently received an exemption. The second number in the savings range includes the number of businesses that have applied for but have not yet received an exemption.

Estimated Cost Savings to a California Small Business

Over a five-year period, the total cost savings for a California small business is also expected to be \$5,000, and the total cost savings for all California small businesses is estimated to range from approximately \$5,000 (based on the number of manufacturers that have currently received an exemption) to \$20,000 (includes both the number of manufacturers that have

currently received an exemption and the number of manufacturers that have applied for but have not yet received an exemption).

A. The Creation or Elimination of Jobs Within the State of California

No jobs are expected to be eliminated due to the proposed amendments, because there are no cost increases associated with these amendments. While there is expected to be a small cost savings to manufacturers of EV conversions due to a reduction in the number of application fees paid by each manufacturer, these cost savings are not expected to be significant enough to result in job creation.

B. The Creation of New Business or the Elimination of Existing Businesses Within the State of California

No businesses are expected to be eliminated due to the proposed amendments, because there are no cost increases associated with these amendments. While there is expected to be a small cost savings to manufacturers of EV conversions due to a reduction in the number of application fees paid by each manufacturer, these cost savings are not expected to be significant enough to result in business creation.

C. The Expansion of Businesses Currently Doing Business Within the State of California

The proposed amendments are not expected to impact the expansion of businesses currently doing business within the State of California. As mentioned above, there is expected to be a small cost savings to manufacturers of EV conversions due to a reduction in the number of application fees paid by each manufacturer. However, these cost savings are not expected to be significant enough to impact the expansion of businesses currently doing business within the State of California.

D. Significant Statewide Adverse Economic Impact Directly Affecting Business, Including Ability to Compete

There are no significant statewide adverse economic impacts directly affecting business, including ability to compete, due to the proposed amendments.

E. The Benefits of the Regulation to the Health and Welfare of California Residents, Worker Safety, and the State's Environment

The proposed amendments are not expected to directly create any of these benefits, as they merely reorganize and clarify requirements for EV conversions. However, the proposed amendments may have small but unquantifiable air quality benefits on a vehicle-by-vehicle basis from the removal of each internal combustion engine and subsequent replacement with an EV conversion kit.

X. Evaluation of Regulatory Alternatives

Government Code section 11346.2, subdivision (b)(4) requires CARB 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. As explained below, no alternative proposed was found to be less burdensome and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the authorizing law. The Board has not identified any reasonable alternatives that would lessen any adverse impact on small business.

A. Alternative 1 - *Do Not Amend the Current Procedure*

This alternative would keep EV conversions in the “catch all” Category IX application group. This alternative was rejected because this alternative will not address the ambiguities and poor fit of some of the requirements of the current Procedure to EV conversions. These are resulting in unnecessary confusion for EV conversion manufacturers during the application process and placing obstacles to receiving an exemption from the tampering provisions of Vehicle Code section 27156 for this category. Not adopting a new streamlined Category X application group for EV conversion manufacturers will not support the needs of industry for a greater efficiency in the current exemption application process.

B. Alternative 2 - *Adopt a New Evaluation Procedure that is Specific to EV Conversions*

This alternative would create a new evaluation procedure that would solely apply to EV conversions. Staff would need to create the new evaluation procedure for EV conversions by copying provisions from the current evaluation Procedure into the new procedure. This alternative was rejected for several reasons. Historically, EV conversion manufacturers have been accustomed to using the general aftermarket part procedure for on-road applications. Leaving the evaluation of EV conversions in this Procedure allows CARB staff to easily redirect a miscategorized application to the appropriate category. Otherwise, the application would have to be completely rejected, and the manufacturer would be required to resubmit it under a completely different procedure. This could potentially result in additional application fees to the manufacturer. Additionally, removing the requirements for only EV conversions would likely be confusing and onerous to aftermarket parts manufacturers, which would need to search through multiple procedures to ensure that the appropriate procedure is used. New testing or evaluation procedures are not usually created by CARB, unless the requirements contained therein are substantially different than the original procedures. Therefore, if staff were to create a new evaluation procedure for EV conversions by simply copying provisions from an existing procedure it would likely cause confusion among manufacturers. In addition, the current Procedure would have to be modified to exclude EV conversions anyway.

C. Small Business Alternative

The Board has not identified any reasonable alternatives that would lessen any adverse impact on small business.

D. Performance Standards in Place of Prescriptive Standards

The proposed amendments do not mandate the use of specific technologies. These proposed amendments do not mandate any new actions by manufacturers of EV conversions, but instead further streamline the current application process for EV conversion manufacturers by clarifying the type of information needed when an exemption from Vehicle Code section 27156 is filed. Applying for an exemption is voluntary from the perspective that a manufacturer is not forced to sell in California and can choose to market and sell their products outside of California. As such, these proposed amendments do not mandate the use of any specific technology.

E. Health and Safety Code Section 57005 Major Regulation Alternatives

The proposed regulation will not result in a total economic impact on state businesses of more than \$10 million in one or more years of implementation. Therefore, this proposal is not a major regulation as defined by Health and Safety Code section 57005.

XI. Justification for Adoption of Regulations Different from Federal Regulations Contained in the Code of Federal Regulations

The United States Environmental Protection Agency (U.S. EPA) has adopted a regulation governing voluntary aftermarket parts certification: Code of Federal Regulations, title 40, Chapter I, Subchapter C, Part 85, Subpart V "Emissions Control System Performance Warranty Regulations and Voluntary Aftermarket Part Certification Program."⁵ This regulation establishes only a voluntary self-certification program. In contrast, CARB's aftermarket parts procedure requires aftermarket part manufacturers to receive and obtain an exemption from the anti-tampering provisions of Vehicle Code section 27156 before they can offer parts for sale in California.

XII. Public Process for Development of the Proposed Action (Pre-Regulatory Information)

Consistent with Government Code sections 11346, subdivision (b), and 11346.45, subdivision (a), and with the Board's long-standing practice, CARB staff had meetings with interested persons during the development of the proposed amendments. In addition, CARB released a draft of the proposed amendments and requested comments from stakeholders on November 17, 2022. It was released via the GovDelivery service's list, "Aftermarket Performance and Add-On Parts," which reaches approximately 5,390 subscribers. A dedicated email address was set up to receive responses. Staff met with a total of 11 stakeholders, to discuss concerns with the current Procedure specific to EV conversions as well as general ideas and concepts regarding how to improve and clarify the EV conversion requirements. These informal, pre-rulemaking discussions provided staff with useful

⁵ United States Environmental Protection Agency, Code of Federal Regulations, title 40, Chapter I, Sub-Chapter C, Part 85, Sub-Part V "Emissions Control System Performance Warranty Regulations and Voluntary Aftermarket Part Certification Program."

information that was considered during development of the amendments that are now being proposed for formal public comment.

XIII. References

1. United States Environmental Protection Agency, Code of Federal Regulations, Title 40, Chapter I, Subchapter C, Part 85, Subpart V "Emissions Control System Performance Warranty Regulations and Voluntary Aftermarket Part Certification Program. <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-85/subpart-V>. Accessed: December 1, 2022.
2. Code of Federal Regulations, Title 40, Subchapter C, Part 86, Subpart S, Section 86.1803-01, June 29, 2021. <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-86/subpart-S/section-86.1803-01>. Accessed December 22, 2022.

XIV. Appendices

Appendix A-1. Proposed Regulation Order

Appendix A-2. Proposed Regulation Order (Accessible Format)

Appendix B-1. Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines

Appendix B-2. Procedures for Exemption of Add-On and Modified Part(s) for On-Road Vehicles/Engines (Accessible Format)