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Purpose and Rationale

Section 1962.7. In-Use Compliance, Corrective Action and Recall Protocols for Zero Emission 2026 and Subsequent Model Year Passenger Cars and Light-Duty Trucks.

Subsection 1962.7(a) Applicability.

Purpose

The purpose of this subsection is to define that these procedures shall apply to 2026 and subsequent model year zero-emission and plug-in hybrid light-duty vehicles certified for sale in California.

Rationale

This subsection is necessary to define which vehicles to which these in-use compliance requirements will apply.

Subsection 1962.7(b) Purpose.

Purpose

The purpose of this subsection is to explain the goals of this section: to implement authority for CARB to monitor vehicles from manufacture through distribution to consumers to determine compliance with applicable laws, to establish a zero-emission in-use verification report to be submitted by the manufacturer to CARB, to establish enforcement testing procedures to be used by CARB to periodically evaluate vehicles for compliance, and to establish procedures and requirements for corrective actions.

Rationale

This subsection is necessary to state CARB's authority to determine compliance and monitor vehicles from manufacture through distribution and to provide a roadmap of this section. CARB has broad authority under Health and Safety Code section 39600 to do such acts as may be necessary for the proper execution of its duties. This authorizes CARB to engage in a variety of actions to collect information regarding and confirm compliance with emission standards and related requirements.

The explanation of this section facilitates comprehension and compliance. The In-Use Compliance Program began in 1983 to help California meet ambient air quality

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standards by ensuring that vehicles do not exceed their emissions standard through their useful life. Applying similar provisions to ZEVs that ensure the vehicles are capable of operating at their certified electric ranges through their useful life ensures they will displace emissions from conventional vehicles.

Subsection 1962.7(c) Definitions.

Purpose

The purpose of this subsection is to add appropriate definitions for terms used in this section 1962.7 in addition to those defined in related regulations at CCR, title 13, section 1962.4 and its incorporated test procedures.

Rationale

This subsection is necessary to define terms additional to those defined in CCR, title 13, section 1962.4 and incorporated test procedures. These additional terms are integral to this section, so it is important to define them for clarity and comprehension.

“Corrective action” is necessary because this is the mechanism by which manufacturers remedy noncompliance or nonconformity, and “corrective action campaign” is necessary to identify the total period of implementation of corrective action. Further definition of the three categories of corrective action is necessary to identify the circumstances under which each category of corrective action provided in this section applies. The definitions of “voluntary corrective action” and “influenced corrective action” include “or other program” because manufacturers engaging in those types of corrective action can propose other types of actions (e.g., extended warranty) in their corrective action plans. The definition of “ordered corrective action” does not include “or other action” because CARB orders only the listed actions. The definitions are adapted from definitions in CCR, title 13, section § 1968.5.

“Motor vehicle class” is necessary because it refers to the group of vehicles that must undergo enforcement testing, distinguished from other groups of vehicles under the regulations, like test groups, durability groups, and engine families.

“Noncomformity,” “nonconformance,” or “noncompliance” are necessary to define as the conditions that can trigger corrective action.

“Test Sample Group” is necessary to distinguish the group of vehicles that is used for CARB’s enforcement testing program. This is different from a test group, which is defined in the test procedures incorporated by reference in section 1962.4.

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“Vehicle owner” is necessary to define because it identifies the person a manufacturer is required to notify under this section.

Subsection 1962.7(d) Zero Emission Vehicle In-Use Verification Report.

Purpose

The purpose of this subsection is to introduce the following subsections and explicitly require manufacturers to submit zero-emission vehicle in-use verification reports.

Rationale

This subsection is necessary to set the requirement for manufacturers to submit in-use data of zero-emission vehicles in a standard form. The in-use verification report is a screening tool for CARB to determine if test groups may require additional compliance testing. This report, and any needed additional testing, are critical to ensure emissions displacement will occur as anticipated.

Subsection 1962.7 (d)(1) through (d)(1)(B) Minimum sample size.

Purpose

The purpose of this subsection is to identify the minimum sample size for each test group.

Rationale

This subsection is necessary to define the minimum sample size to supply CARB with adequate data to analyze compliance with the durability requirement in CCR, title 13, section 1962.4 for each test group. A minimum sample size of 30 vehicles was identified as large enough to reasonably ensure representative data could be analyzed within each test group; increase the likelihood that noncompliance affecting only certain vehicles would be spotted; and ensure that outlier sample vehicles would be appropriately recognized, while small enough to promote reasonably expeditious testing and appropriately minimize testing burden. The default minimum sample size of 30 vehicles also was chosen to align with the minimum sample size for current on-board diagnostic testing for petroleum-fueled vehicles to minimize testing burdens and provide consistency. Consistency among regulations concerning petroleum-fueled vehicles and ZEVs, where appropriate, is helpful because most ZEV manufacturers also produce petroleum-fueled vehicles and therefore have compliance experience with the existing regulations, processes, and expectations for petroleum-fueled vehicles. Therefore, most manufacturers are already familiar with the processes and expectations for petroleum-fueled vehicles. Because regulatory implementation and compliance have learning curves, adopting ZEV processes and expectations consistent with those for petroleum-fueled vehicles (where appropriate) can provide efficiencies, support compliance, and reduce burden on both manufacturers and CARB. Moreover,

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where CARB's proposal is aligned with existing regulatory provisions, CARB has already found the existing provision effective in practice and deemed it appropriate and worthwhile to replicate here, given CARB's long history of regulatory implementation with petroleum-fueled vehicles.

It is necessary and appropriate to provide alternatives to the default minimum sample size for small volume manufacturers and low sales volume test groups because the default minimum of 30 vehicles may be an unreasonably high proportion of the entire test group. It is necessary and appropriate to allow a small volume manufacturer to propose a smaller sample size if the manufacturer can demonstrate that a smaller size will still provide representative results for the particular test group while avoiding being overly burdensome given the small volume. It is necessary to define the information a manufacturer must provide along with such a request and circumstances under which the Executive Officer shall approve the request on a case-by-case basis to ensure that a smaller sample is only approved if it would maintain representativeness. Similarly, it is necessary to allow a large or intermediate volume manufacturer with a low sales volume test group to incorporate a sampling process for a low sales volume test group, in lieu of prescribing a minimum sample size, in its sampling plan if the manufacturer undertakes sampling for that test group in a manner identical to one previously approved for a higher volume sales test group. This is necessary to lessen the burden for these low sales volume test groups while maintaining representative sampling using a proven sampling method and is consistent with sampling provisions for petroleum-fueled vehicles to minimize burdens.

Subsection 1962.7(d)(2) Sampling Interval.

Purpose

The purpose of this subsection is to make explicit that there will be two distinct intervals in which data must be collected from each test group.

Rationale

This subsection is necessary to determine the frequency at which data is generated, ensure standardized data is collected consistently by manufacturers, and to introduce and organize the following subsections (A) through (C).

Subsection 1962.7(d)(2)(A) Low Mileage.

Purpose

The purpose of this subsection is to define the first interval in which data should be collected for the test group, which is when the vehicle has low mileage.

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Rationale

This subsection is necessary to define the first period in which data is collected in a vehicle's useful life. The cut point of 3 years or 36,000 miles aligns with the average annual mileage of California vehicles used in CARB's EMFAC model. This also aligns with the way manufacturers conduct In-Use Verification Program (IUVP) testing required of gasoline vehicles. This is necessary to monitor how vehicles conform to the conditions at the time of certification and promptly identify potential issues problems of battery degradation.

Subsection 1962.7(d)(2)(B) Midpoint Mileage.

Purpose

The purpose of this subsection is to define the second interval in which data must be collected for the test group, which is when the vehicle is at its mid-point in mileage accrual.

Rationale

This subsection is necessary to define the period in which data is collected at a midpoint of a vehicle's mileage accrual in its useful life. It is necessary for data at this point to be from vehicles at least 6 years and having at least 60,000 miles because that is representative of a middle-aged car. Similarly, it is necessary that vehicles cannot have more than 150,000 miles because that is the mileage threshold for a vehicle's typical useful life (defined as 10 years or 150,000 miles, in CCR, title 13, section 1962.4). It is important to continue monitoring vehicle performance through the useful life to ensure vehicles meet the applicable requirements.

Subsection 1962.7(d)(2)(C) Modification of Deadlines.

Purpose

The purpose of this subsection is to allow manufacturers to request approval of modification of the deadlines for data collection for the sampling interval under subsections (d)(2)(A) and (B) and to define procedures for such requests and Executive Officer approval. The subsection provides timelines for the request and Executive Officer response in advance of the deadlines for data collection. It defines the information and documentation that the manufacturer must provide along with the request and requires the Executive Officer to grant the request if the manufacturer has demonstrated that, despite its reasonable diligence, deadline modification is necessary for the manufacturer to reasonably collect the required data from the

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minimum number of vehicles within the required accumulated odometer range. The subsection identifies the factors the Executive Officer must consider in making a case-by-case determination of the duration of a deadline modification.

Rationale

This subsection is necessary to define the ability and circumstances in which a manufacturer may request and obtain the extension of a deadline in subsection (d)(2)(A) and (B). Extension of a deadline may be necessary and reasonable for effective implementation without undue burden when the manufacturer has exercised reasonable diligence to comply and is unable to comply with the applicable deadline. For example, a global pandemic might cause significant numbers of vehicles to be driven less than typical, preventing the manufacturer from reasonably obtaining the required numbers of vehicle that have accumulated sufficient mileage to test before the respective deadlines. The subsection is necessary to define the process for a manufacturer to make the request, the Executive Officer to review the request and determine the duration of an extension, if granted, and the Executive Officer to issue a decision on the request. The information and documentation the manufacturer must provide is necessary for the Executive Officer to confirm that the manufacturer is unable to comply by the deadline despite exercising reasonable diligence and to allow the Executive Officer to determine the duration of any extension provided. The factors the Executive Officer must consider in making a case-by-case determination regarding the duration of any extension are necessary to allow for effective implementation that avoids undue burden on manufacturers that have exercised reasonable diligence while accounting for adverse impacts from delay. The deadlines for the manufacturer to make the request and for the Executive Officer to issue a decision are necessary and reasonable balances of the needs to ensure that manufacturers prepare for deadlines well in advance, that the extension process can apply when (despite a manufacturer's reasonable diligence) compliance difficulties arise closer to the compliance deadline, and that the Executive Officer responds to an extension request in time that a manufacturer whose request is denied can still comply with the original deadline.

Subsection 1962.7(d)(3)(A) through (C) Required Data.

Purpose

The purpose of this subsection is to define the data that shall be collected from each vehicle within the test group for the Zero Emission Vehicle In-Use Verification Report.

Rationale

This subsection is necessary to define the data that manufacturers must provide in their Zero Emission Vehicle In-use Verification Report. The date is necessary to verify

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the vintage of the data reported. Vehicle odometer is necessary to ensure the vehicle is eligible for the sampling interval. Standardized data, per proposed CCR, title 13, section 1962.5, is necessary to track battery state of health as a measure of range degradation to evaluate compliance with the durability requirement. The data gives context to how the vehicle was used (e.g., total charge energy, distance traveled, number of trips taken, amount of fast charging and V2X usage, average battery temperature). This data can help CARB and the manufacturer to understand or explain differences in the state of health data and factors that most affect battery durability. The data may be analyzed to estimate whether the vehicle is projected to meet the durability requirement over its useful life.

Subsection 1962.7(d)(4) Sampling Plan.

Purpose

The purpose of this subsection is to define the requirement for manufacturers to submit a sampling plan for review and approval which includes the sampling method, timeline to collect the data, and reporting format.

Rationale

This subsection is necessary to outline the requirements for manufacturers to submit a sampling plan for review and approval and the requirements for that plan to ensure representative data is collected in a timely manner. This will ensure manufacturers submit data that is representative of real-world driving in California and meets the requirements for the sampling size and interval of data collected.

Subsection 1962.7(d)(5) through (5)(C). Reporting Requirements.

Purpose

The purpose of this subsection is to define the substance and procedures for the Zero Emission Vehicle In-Use Verification Report.

Rationale

This subsection is necessary to standardize the reporting, including the format of data and information and submittal process for each manufacturer. Submittal in the specified format is necessary for effective transmittal and CARB review of voluminous data. Manufacturer corporate name is necessary to track the reporting manufacturer. Test group information is necessary to be able to identify the test group for

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manufacturers submitting data on more than one test group. The individual vehicle data is necessary to report for the reasons described under subsection 1962.7(d)(3).

Subsection 1962.7(d)(6)

Purpose

The purpose of this subsection is to define the due dates in which the manufacturer is required to submit the data after it has been collected from applicable sampling intervals, and to specify how manufacturers are to report the information.

Rationale

This subsection is necessary to define the due dates for manufacturers to follow in submitting the data. This ensures the data submitted is timely and represents the test group at the applicable sampling interval. The 30 day requirement also mirrors requirements in the Code of Federal Regulations, title 40, § 86.1847-01, which outlines the requirements for manufacturers submitting in-use verification data for petroleum fueled vehicles.

Subsection 1962.7(e) Enforcement Testing for Zero-Emission Vehicles.

Purpose

The purpose of this subsection is to subject ZEVs to periodic evaluation by CARB to **verify compliance.**

Rationale

This subsection is necessary to explain how CARB will test zero-emission vehicles certified for sale in California to determine compliance with the regulation and how CARB will notify manufacturers of any noncompliance. Testing vehicles for compliance and enforcing against any noncompliance is critical to ensuring that emissions are reduced as intended. CARB is tasked with achieving the maximum emissions reductions possible, including through in-use and compliance requirements, and has broad authority to do such acts as may be necessary for the proper execution of its duties. This authorizes CARB to test motor vehicles to collect information regarding and to confirm compliance with emission standards and related requirements. This subsection is necessary to disclose to interested persons how CARB will test motor vehicles subject to the ZEV regulations.

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Subsection 1962.7(e)(1)(A) Routine Testing.

Purpose

The purpose of this subsection is to disclose that CARB may test any production vehicle that has been certified for sale in California for compliance with the applicable requirements.

Rationale

In addition to Zero Emission Vehicle In-Use Verification Reports from manufacturers, CARB reiterates its right and intention to test certified vehicles in California to confirm compliance with applicable requirements. This is consistent with CARB's exercise of its authority to test gasoline vehicles. This subsection is necessary to disclose that it may test any zero-emission vehicle that has been certified for sale in California. This subsection is also necessary to make clear that CARB's exercise of such authority does not impose any additional obligations upon a manufacturer and cannot on its own be a basis for finding any noncomformity; rather, the testing of vehicles under this subsection is entirely undertaken by CARB to be a basis for conducting further enforcement testing as described further in subsection (e).

Subsection 1962.7(e)(1)(B) Enforcement Testing.

Purpose

The purpose of this subsection is to define enforcement testing that may occur pursuant to subsections (e)(2) through (4).

Rationale

This subsection is necessary to disclose that enforcement testing may occur in response to compliance testing data or other information, including zero emission in-use verification reports, warranty information reports, and field information reports. Enforcement testing is necessary to ensure compliance and that emissions are reduced as intended.

Subsection 1962.7(e)(2), (e)(2)(A), and (e)(2)(A)1. Criteria for Determining the Motor Vehicle Class.

Purpose

Subsections (e)(2) and (e)(2)(A) organize and title the following subsections. The purpose of this subsection (e)(2)(A)1. is to define the criteria for determining the motor vehicle class that will undergo the enforcement testing.

Rationale

This subsection is necessary to make explicit the criteria for determining the motor vehicle class undergoing enforcement testing from considering propulsion related hardware/electric drive components, battery chemistries, battery thermal management, or control strategies. These characteristics were chosen because vehicles with these similar technologies should have similar range degradation, and failures to meet applicable requirements by vehicles sharing these characteristics provides evidence the failures are pervasive.

Subsection 1962.7(e)(2)(A)2. Default Motor Vehicle Class.

Purpose

The purpose of this subsection is to define the default motor vehicle class, which is the test group.

Rationale

This subsection is necessary to define that the default motor vehicle class is the test group used by the manufacturer to certify the vehicles to be tested. In most cases this likely will be the group of vehicles that CARB would also test, as this is the group of vehicles that would match a manufacturer's Zero Emission Vehicle In-Use Verification Report.

Subsection 1962.7(e)(2)(A)3. Use of a Subgroup of a Test Group.

Purpose

The purpose of this subsection is to disclose that CARB may select a subgroup of vehicles from within a test group if there are reasons the performance of a subgroup may differ from that of the other vehicles in a test group.

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Rationale

This subsection is necessary for CARB to effectively test vehicles for compliance with the proposed regulations. There are instances when a subgroup of vehicles within a test group does not comply with the applicable requirements to the same extent as the remainder of the test group. A subgroup of a test group may be appropriate for enforcement testing where the root of noncompliance exists only in specific configurations, especially with respect to software versions, within a test group. This ability to focus testing is necessary to ensure compliance is evaluated at the appropriate level considering the circumstances of a given instance. It is necessary for the Executive Officer to make a determination that a subgroup of the test group is the appropriate motor vehicle class for testing using good engineering judgment and on a case-by-case basis because such a determination is dependent on the specific characteristics of the nonconformity, the subgroup, and the test group.

Subsection 1962.7(e)(2)(A)4. Use of Multiple Test Groups.

Purpose

The purpose of this subsection is to define the determination criteria needed for the Executive Officer to conduct enforcement testing on a motor vehicle class that includes vehicles from multiple test groups.

Rationale

This subsection is necessary for CARB to efficiently test vehicles for compliance with the proposed regulations. It allows CARB to create a motor vehicle class for enforcement testing when vehicles from several test groups, including from different model years, share common characteristics that indicate that the compliance status of the vehicles would be similar. This ability to create a motor vehicle class from multiple test groups is necessary to efficiently ensure compliance when CARB has reason to believe similar non-compliance issues are present in several similar test groups. This allows CARB to test vehicles simultaneously. It is necessary for the Executive Officer to make a determination that a combination of multiple test groups is the appropriate motor vehicle class for testing using good engineering judgment and on a case-by-case basis because such a determination is dependent on the specific characteristics of the nonconformity and the test groups.

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Subsection 1962.7(e)(2)(A)5. Exclusion of Motor Vehicle Class That Exceeds Useful Life.

Purpose

The purpose of this subsection is to define that testing of a motor vehicle class whose vehicles, on average, have exceeded the useful life of the motor vehicle class may not be conducted (except for state of health).

Rationale

This subsection is necessary to exclude from enforcement testing motor vehicles that have exceeded their useful life, except when testing to determine if the battery state-of-health or other standardized data have been programmed to deactivate or report less accurately as they accrue high mileage or age. Because enforcement testing is conducted to determine if the applicable requirements are met over the vehicle's required useful life, exclusion of vehicles that have exceeded their useful life is appropriate and necessary. The thresholds the Executive Officer shall use to determine when a given vehicle is beyond its useful life were derived from EMFAC2021 and thus reflect the useful life thresholds CARB uses in developing California's mobile source emissions inventory. This is consistent with how CARB determines petroleum-fueled vehicles are beyond their useful life under the on-board diagnostic enforcement regulation in CCR, title 13, section 1968.5.

Subsection 1962.7(e)(2)(B) Size of Test Sample Group.

Purpose

The purpose of this subsection is to specify and define the criteria to determine the number of vehicles to include in test sample groups for enforcement testing. These criteria are specified in subsections (e)(2)(B)1. through 3.

Rationale

This subsection is necessary to disclose the process by which the Executive Officer shall determine the size of the Test Sample Group.

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Subsection 1962.7(e)(2)(B)1. Durability Test Sample Size.

Purpose

The purpose of this subsection is to define the sample size of vehicles the Executive Officer shall test to determine the durability characteristics of the motor vehicle class being tested, in accordance with CCR, title 13, section 2137.

Rationale

This subsection is necessary to define the sample size of vehicles the Executive Officer shall test to determine the durability characteristics of the motor vehicle class being tested. The In-Use Compliance Program for gasoline vehicles specifies the criteria for determining enforcement testing sample sizes to ensure results are representative. See CCR, title 13, section 2137. These requirements should also apply to ZEV testing for consistency and to avoid undue burdens.

Subsection 1962.7(e)(2)(B)2. SOH Test Sample Size.

Purpose

The purpose of this subsection is to make explicit the sample size of vehicles for in-use verification of the state-of-health (SOH) parameter performance of the motor vehicle class being tested.

Rationale

This section is necessary to define the sample size and criteria that shall be used when choosing the motor vehicle class that will be used for the in-use SOH test. The In-Use Compliance Program for gasoline vehicles specifies the criteria for determining enforcement testing sample sizes to ensure results are representative. See CCR, title 13, section 2137. These requirements should also apply to ZEV testing for consistency and to avoid undue burdens.

Subsection 1962.7(e)(2)(B)3. Other Standardized Data Test Sample Size.

Purpose

The purpose of this subsection is to ensure that vehicles tested for enforcement of other standardized data parameters (beyond durability and SOH) must be of a number sufficient to ensure that the results of testing may be reasonably inferred to the motor

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vehicle class. The Executive Officer must conduct such testing on at least two vehicles. The purpose of this subsection is also to set the minimum test sample group at 2 vehicles.

Rationale

This section is necessary to ensure that a number of vehicles will be tested for enforcement such that the results of the enforcement testing can be reasonably attributed to the motor vehicle class. Because the number of vehicles needed to reasonably attribute testing results to the motor vehicle class will vary given the particular standardized data parameter, nature of potential noncompliance, and motor vehicle class, flexibility in determining that number must be maintained and the number determined on a case-by-case basis. As such, it is necessary for the Executive Officer's determination of how many vehicles to test in each instance to be based upon the nature of the noncompliance and the scope of the motor vehicle class. In any event, the Executive Officer must conduct testing on at least two vehicles; a test sample group of one vehicle is insufficient no matter the potential noncompliance and scope of motor vehicle class because a single vehicle may have nonrepresentative qualities. Two vehicles is a reasonable minimum test sample group size because two vehicles are statistically unlikely to both have identical nonrepresentative qualities and because certain types of potential noncompliance could necessitate rapid testing (which the Executive Officer may determine on a case-by-case basis and using good engineering judgment).

Subsection 1962.7(e)(2)(C)1. Procuring Vehicles for Durability and State of Health Testing.

Purpose

The purpose of this subsection is to define the procurement process for vehicles for durability and SOH enforcement testing and apply the criteria set forth in subsection (e)(2)(D)1. to ensure results are valid.

Rationale

This section is necessary to define the procurement process for vehicles for durability and SOH enforcement testing to ensure they are representative of vehicles sold in California, selected at random, and reflect typical use. Vehicles will be selected at random from those that responded to request from the California Department of Motor Vehicles (DMV) to provide their vehicles for testing and that meet the specified criteria to ensure testing results are valid. This process aligns with that currently used for gasoline vehicles.

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Subsection 1962.7(e)(2)(C)2. Procuring Vehicles for Other Testing.

Purpose

The purpose of this subsection is to define for all other testing the appropriate manner for procuring vehicles. The Executive Officer shall determine, on a case-by-case basis, the appropriate manner to procure vehicles based on the nature of the noncompliance and the scope of the motor vehicle class. In certain instances, it may be appropriate to procure vehicles by any means and from any source.

Rationale

This section is necessary to define for all other testing the appropriate manner for procuring vehicles. As with the number of vehicles to test, the appropriate means of procuring such vehicles may vary with the particular standardized data parameter, the nature of potential noncompliance, and the scope of the motor vehicle class. Therefore, flexibility in the manner of procuring vehicles must be maintained and determined on a case-by-case basis. As such, it is necessary for the Executive Officer's determination of the appropriate manner of vehicle procurement in each instance to be based upon the nature of the noncompliance and the scope of the motor vehicle class. Where the Executive Officer can conclude, using good engineering judgment, that a reasonable basis exists to believe that a vehicle operator's driving or maintenance habits would not substantially impact the test results, it is appropriate for the Executive Officer to then procure the needed vehicles by any means and from any source that assure effective collection and testing (for example, rental car companies) as long as those vehicles meet the regulation's other criteria. This provision is necessary to ensure that the Executive Officer can reasonably obtain the necessary number of vehicles with the conditions required for testing and relevant to the possible noncompliance, to appropriately reduce burden, and to appropriately minimize the time before noncompliance, if any, can be confirmed and corrective action, if any, can be initiated.

Subsection 1962.7(e)(2)(D)1.a. through (e)(2)(D)1.k. Defining Vehicles to be Included in Durability Test Sample Group.

Purpose

The purpose of this subsection is to define the vehicles selected for the test sample group for enforcement durability testing by listing the characteristics that will ensure valid results.

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Rationale

This section is necessary to ensure vehicles selected in the test sample group for durability enforcement testing are California certified and registered, have mileage that is equal or less than 90% useful-life and have an age within their useful life, have not been tampered with or equipped with add-on or modified parts that would have a permanent effect on battery degradation or vehicle range, have no indication of abuse (e.g., racing, overloading, or other misuse), neglect, improper maintenance or other factors that would have a permanent effect on electric range, have no detected or known malfunction(s) that would affect the electric range, have had no major repair of the vehicle resulting from collision, have not had any portion of the battery pack replaced with non-OEM replacement parts, have no problem that might jeopardize the safety of laboratory personnel, have no indication of excessive vehicle to grid operation, have no indication of excessive direct current (DC) charging, and have no indication of excessive operation of the vehicle at high battery temperatures. These criteria are similar to those for testing conventional vehicles to minimize burden and ensure consistency. These factors must be specified because they could have an undue effect on compliance if not controlled for.

Additionally, CARB's ability, on a case-by-case basis and using good engineering judgment, to repair a vehicle with a detected or known malfunction and then include such vehicle within the test sample group is necessary to allow CARB to reasonably obtain the minimum number of vehicles for testing, to make the testing representative if the nature of the potential noncompliance is such that procured vehicles would likely have a detected or known malfunction, or if the malfunction's impact on the electric range can be eliminated by repair. Such scenarios are entirely case-by-case and cannot be known in advance. This subsection also makes clear that CARB's repairing of vehicles for inclusion in the test sample group does not add any additional responsibilities on a manufacturer.

Subsection 1962.7(e)(2)(D)2. Defining "Excessive" for Durability Test Sample Group.

Purpose

The purpose of this subsection is to describe how the Executive Officer will determine that a vehicle has been subjected to excessive use as that term is used in subsections (e)(2)(D)1.h., (e)(2)(D)1.i., and (e)(2)(D)1.j. The Executive Officer shall apply good engineering judgment to establish a specific limit or otherwise exclude specific vehicles that have excessive levels of vehicle-to-grid or DC charging activity, operation at high battery temperatures unrepresentative of most users, or usage that could not

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have reasonably been foreseen by the manufacturer when the vehicle was originally manufactured.

Rationale

This section is necessary to provide a means to ensure that vehicles used in the durability test sample group have not been subjected to excessive battery use that would lead to unreliable compliance test results. Because levels of excessive use will vary by vehicle type, it is necessary to maintain flexibility and determine excessive levels on a case-by-case basis and using good engineering judgment. To that end, the Executive Officer must consider the reasonable frequency, distribution, and impact on battery degradation of vehicle-to-grid and DC charging activities, or usage at high battery temperatures, adherence to the manufacturer's recommendations or guidelines for such activities, and any other relevant information. These considerations allow the application of relevant scientific and technological principles of zero-emission vehicle design and performance to determine appropriate limits and criteria in a given instance when the Executive Officer conducts enforcement testing.

Subsection 1962.7(e)(2)(D)3.a. through (e)(2)(D)3.f. Defining Vehicles to be Included in SOH Test Sample Group.

Purpose

The purpose of this subsection is to define the criteria for vehicles selected for the test sample group for battery state-of health (SOH) to ensure that testing can be performed and will provide valid results representative of the vehicles represented by the test group. The vehicles must be California certified and registered and have an indication that the battery SOH parameter has been updated within the last 4,000 miles. This subsection provides terms for CARB to ensure that the vehicles are representative and for CARB to operate or repair vehicles to ensure results are representative. CARB may elect to operate the vehicle, in a manner consistent with the manufacturer's instructions to consumers, sufficient to update the SOH parameter, and then include the vehicle in the test sample group if it has no detected or known malfunction(s) that would affect the battery SOH parameter accuracy. CARB may elect to repair a vehicle with a detected or known malfunction, operate the vehicle in a manner consistent with the manufacturer's instructions to consumers sufficient to update the SOH parameter, and then include the vehicle in the test sample group if it has not been tampered with or equipped with add-on or modified parts that would cause the vehicles not to comply with the battery SOH accuracy requirements of California Code of Regulations, title 13, section 1962.5, has not had any portion of the battery pack replaced with non-OEM replacement parts, and has mileage and age that are less than or equal to the useful life for the subject vehicles.

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Rationale

This subsection is necessary to ensure vehicles selected in the test sample group for enforcement SOH testing will provide testing results representative of vehicles in the test group that are in use in California. The subsection is necessary to define the parameters that will yield representative results and provide CARB the ability to obtain an adequate supply of representative vehicles for testing and ensure the tested vehicles are in a condition that is representative of vehicles in use in California. It is necessary to provide CARB the ability to ensure that the test results reflect the performance of the vehicle and do not reflect improper operation and maintenance. It is necessary that CARB may elect to repair and then include in the test sample group a vehicle with a detected or known malfunction to allow CARB to reasonably obtain the minimum number of vehicles for testing, to make the testing representative if the nature of the potential noncompliance is such that procured vehicles would likely have a detected or known malfunction, or if the malfunction's impact on the SOH parameter accuracy can be eliminated by repair. Such scenarios are entirely case-by-case and cannot be known in advance. The criteria align with vehicle selection criteria for CARB enforcement of on-board diagnostic parameters for petroleum-fueled light-duty vehicles to promote consistency and minimize burdens.

Subsection 1962.7(e)(2)(D)4. Defining Vehicles to be Included in Other Test Sample Group.

Purpose

The purpose of this subsection is to define the vehicles that should be selected for the test sample group for enforcement testing of any other requirement that is not covered by sections (e)(2)(D)1. or (e)(2)(D)3.

Rationale

This section is necessary to establish the requirements for selecting vehicles for enforcement testing of any other requirement that are not covered in sections (e)(2)(D)1. or (e)(2)(D)3. to ensure valid results that are representative of vehicles in use in the state. The specified criteria align with vehicle selection criteria for CARB light-duty enforcement testing for consistency and to minimize testing burdens. Additionally, CARB's ability, on a case-by-case basis and using good engineering judgment, to repair a vehicle with a detected or known malfunction and then include such vehicle within the test sample group is necessary to allow CARB to reasonably obtain the minimum number of vehicles for testing, to make the testing representative if the nature of the potential noncompliance is such that procured vehicles would likely

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have a detected or known malfunction, or if the malfunction's impact on the ability of the vehicle to report the required standardized data can be eliminated by repair. Such scenarios are entirely case-by-case and cannot be known in advance.

Subsection 1962.7(e)(2)(D)5. Removal of Vehicles Failing to Meet Applicable Criteria.

Purpose

The purpose of this subsection is to specify the result of a vehicle failing to meet one or more of the applicable criteria of subsections (e)(2)(D)(i) through (e)(2)(D)(iv). The failing vehicle shall be removed from the test sample group. A removed vehicle can be replaced with an additional vehicle selected in accordance with subsections (e)(2)(C) and (e)(2)(D) to ensure reliable results are obtained from an appropriate number of vehicles. Test results relying on data from the removed vehicle shall be recalculated without using the data from the removed vehicle.

Rationale

This section is necessary as it defines the ability to remove vehicles from a test sample group if they fail to meet the criteria of subsection (e)(2)(D)(i) through (e)(2)(D)(iv). Data from that removed vehicle must also be removed from test results. This section also allows for that vehicle to be replaced in accordance with subsections (e)(2)(C) and (e)(2)(D) and based on the Executive Officer's good engineering judgment. This is necessary on a case-by-case basis because removing a vehicle may adversely impact the test sample group's representativeness; such an impact cannot be known without first knowing the size of the test sample group. Provisions for replacing the vehicle and the data obtained from it ensure that testing produces reliable data while minimizing the burden of testing.

Subsection 1962.7(e)(3)(A) Durability Testing.

Purpose

The purpose of this subsection is to define the durability testing procedures for electric range: those adopted under and incorporated by reference in California Code of Regulations, title 13, section 1962.4.

Rationale

This section is necessary to define the testing procedures the Executive Officer must follow to determine compliance with the durability standard under California Code of Regulations, title 13, section 1962.4 and the incorporated test procedures. The test

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procedures incorporated by reference in section 1962.4 contain the requisite procedures.

Subsection 1962.7(e)(3)(B) Battery SOH Parameter Accuracy Testing.

Purpose

The purpose of this subsection is to define how CARB shall conduct battery SOH parameter accuracy testing and collect testing data to determine usable battery energy.

Rationale

This section is necessary to define the procedures for data collection and testing for the battery SOH parameter accuracy: CARB shall follow the data collection protocols in CCR, title 13, section 1962.5 and the usable battery energy testing procedures contained in the test procedures incorporated by reference in CCR, title 13, section 1962.4.

Subsection 1962.7(e)(3)(C) Other Testing.

Purpose

The purpose of this subsection is to define that the Executive Officer shall conduct other testing necessary to assess compliance with requirements of California Code of Regulations, title 13, section 1962.5 (beyond durability and battery SOH).

Rationale

This section is necessary to require the Executive Officer to test vehicles as determined necessary for assessing compliance with the requirements of California Code of Regulations, title 13, section 1962.5 (beyond durability and battery SOH, described above) under a condition for which a manufacturer must meet the requirement. This requirement is necessary for the Executive Officer to have all relevant information regarding compliance. Because the testing needed will vary given the particular standardized data parameter, nature of potential noncompliance, and motor vehicle class, it is necessary for the Executive Officer to determine the specific testing means or procedures (e.g., on-road testing, dynamometer testing, use of special test equipment) needed on a case-by-case basis using good engineering judgment.

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Subsection 1962.7(e)(4)(A) Ability to Conduct Additional Testing.

Purpose

The purpose of this subsection is to describe that the Executive Officer may conduct additional testing on a subgroup of the motor vehicle class when testing pursuant to subsection (e)(3) or information available suggest that some vehicles sufficiently differ from those otherwise defined by a class in a way that suggests the subgroup is noncompliant while the class is not.

Rationale

This section is necessary to explain to interested persons the circumstances under which the Executive Officer may conduct additional testing on a subgroup of the vehicles tested pursuant to subsection (e)(3). After enforcement testing conducted under subsection (e)(3), it may become apparent that a subgroup of the motor vehicle class tested may have issues unique from the rest of the class such that further testing may help determine compliance. The appropriateness or necessity of additional testing on the subgroup is dependent on and cannot be known until enforcement testing pursuant to subsection (e)(3) is concluded. Therefore, it is necessary that additional testing on a subgroup be determined on a case-by-case basis based on good engineering judgment where a subgroup of vehicles within the motor vehicle class differ sufficiently enough from the rest of the class and a reasonable basis exists to determine that the difference indicates the subgroup may be noncompliant while the class as a whole may not be. This further ensures that noncompliance will be appropriately discovered and corrected so that these proposed regulations will achieve the needed emission reductions.

Subsection 1962.7(e)(4)(B).

Purpose

The purpose of this subsection is to define that vehicle selection and testing procedures shall follow subsections (e)(2) and (e)(3).

Rationale

This section is necessary to set the requirements of the vehicle selection and testing procedures for any additional testing to ensure testing data is representative of vehicles in use in California and additional testing is done consistently with its preceding enforcement testing.

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Subsection 1962.7(e)(5) Finding of Nonconformance After Enforcement Testing.

Purpose

The purpose of this subsection is to introduce and define the criteria for finding nonconformance after enforcement testing.

Rationale

This subsection is necessary to disclose to interested persons the requirements and criteria for the Executive Officer to find noncompliance based on enforcement testing. The criteria are elaborated in subsections (e)(5)(A) through (C) below, based on the type of testing done.

Subsection 1962.7(e)(5)(A) Durability Finding of Nonconformance Criteria

Purpose

The purpose of this subsection is to define the criteria for finding the durability requirements are not met by the vehicles represented by the test group. This occurs when more than 50 percent of the vehicles in the test sample group are found to have less than 80 percent of the certified all-electric range value.

Rationale

This section is necessary to define the criteria for finding durability nonconformance. A compliance rate of 50% results in the test group passing the durability testing. A 50% passage rate is necessary and appropriate because it represents the test group passing on average and indicates the average or typical vehicle is expected to be on track with the durability requirement.

Subsection 1962.7(e)(5)(B) Battery SOH Parameter Accuracy Finding of Nonconformance Criteria

Purpose

The purpose of this subsection is to define the criteria for finding the battery SOH requirements are not met by the vehicles represented by the test group. This occurs when more than 30 percent of the vehicles in the test sample group report an SOH higher than the measured usable battery energy by more than 5 percent of the certified usable battery energy.

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Rationale

This section is necessary to define the criteria for finding the battery SOH parameter does not meet required accuracy. The required accuracy of 5 percent is that the vehicle must report a 0-100 percent SOH value that corresponds to a usable battery energy value not greater than 5 percent of the certified usable battery energy as compared to the actual usable battery energy measured from a dynamometer test (e.g., if the vehicle reports a SOH value of 70 percent, then the measured usable battery energy has to correspond to a SOH no lower than 65 percent of the original certified usable battery energy; if it were lower, a nonconformance has occurred). It is not 5 percent of the measured usable battery energy (e.g., it is not 5 percent of 65 percent, a nonconformance does not occur when the reported SOH is 3.25 percent higher than the measured SOH). In other words, it is necessary to have the percentages be as compared to the certified usable battery energy for clarity and consistency (the certified usable battery energy is constant, 5 percent of the certified usable battery energy (100 percent) will always be 5 percent). The SOH accuracy requirement was determined to be 5 percent based on discussions with the regulated industry to determine a reasonable specification given the variation of in-use vehicle operation. The allowed failure rate of 30 percent was chosen to align with current emission enforcement testing passing rates and on-board diagnostic requirement testing to minimize testing burdens and provide consistency.

Subsection 1962.7(e)(5)(C) All Other Testing.

Purpose

The purpose of this section is to define the criteria for finding other applicable requirements not otherwise specified in subsections (e)(5)(A) and (B) are not met by the vehicles represented by the test group. A violation of applicable requirements occurs when testing shows that at least 30 percent of the vehicles in the test sample group do not comply with the requirements of California Code of Regulations, title 13, section 1962.4 or the results of the testing indicate that at least 30 percent of the vehicles in the test sample group do not comply with one or more of the requirements of California Code of Regulations, title 13, section 1962.5 while the vehicle is in a propulsion system active mode such that off-board equipment designed to access the standardized data parameters cannot obtain valid and correct data.

Rationale

This section is necessary to define the criteria for finding nonconformance from vehicles in a test sample group that underwent all other testing beyond durability and

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battery SOH parameter accuracy. An example of failing to meet a requirement in proposed CCR, title 13, section 1962.4 would be manufacturers who are found to not supply a charging cord with each vehicle. An example of failing to meet a requirement in proposed CCR, title 13, section 1962.5 would be inaccurately reporting vehicle charge speed to the driver. The compliance rate of 70% reflects the test group passing more than average and aligns with emission enforcement pass rates to promote consistency and minimize compliance burdens.

Subsection 1962.7(e)(6)(A) Notify in Writing.

Purpose

The purpose of this section is to disclose that the Executive Officer will notify a manufacturer in writing upon making a determination of nonconformance under subsection (e)(5).

Rationale

This section is necessary to inform the regulated party that it will be notified of nonconformance under the testing described in section (e)(5).

Subsection 1962.7(e)(6)(B)1. through 5. Information Included in Notice of Determination of Nonconformance.

Purpose

The purpose of this section is to disclose the information that the Executive Officer will include in the notice of determination of nonconformance. This information will be sufficient describe the nonconformance and the basis for it. The information will include a description of each group or set of vehicles in the motor vehicle class covered by the determination; the factual basis for the determination, including a summary of the test results relied upon for the determination; a statement that the Executive Officer shall provide to the manufacturer, upon request and consistent with the California Public Records Act, a provision allowing the manufacturer no less than 90 days from the date of issuance of the notice to provide the Executive Officer with any information contesting the findings set forth in the notice; and a statement that if a final determination is made that the motor vehicle class is nonconforming, the manufacturer may be subject to appropriate corrective action along with monetary penalties.

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Rationale

This section is necessary to inform the manufacturer it will be provided with appropriate information when it receives the notice of determination of nonconformance to enable it to respond and correct the nonconformance. The list of information reflects what is included in a notice of nonconformance for petroleum-fueled light-duty vehicles for consistency and to minimize the burden on the regulated party of receiving varying information.

Subsection 1962.7(e)(6)(C) Manufacturer Response to Notice of Determination of Nonconformance.

Purpose

The purpose of this section is to define the kind of evidence manufacturers may provide to rebut or mitigate results of CARB testing and deadlines for doing so.

Rationale

This section is necessary to provide manufacturers the opportunity to respond and rebut or mitigate CARB's determination of nonconformance with additional evidence, including test results, data, or other information derived from vehicle testing or data collection. The deadlines are necessary to ensure that any information is provided promptly so, if the determination of nonconformance remains, any appropriate corrective action can also be undertaken promptly. This provision is consistent with existing regulations for CARB enforcement of on-board diagnostic parameters for petroleum-fueled vehicles to promote consistency and minimize burdens.

Subsection 1962.7(e)(6)(C)1.a. Evidence of Inappropriate Inclusion of Vehicle in Test Sample Group.

Purpose

The purpose of this section is to solicit evidence of inappropriate inclusion of a vehicle in the test sample group in the case of durability and SOH parameter accuracy testing.

Rationale

This section is necessary to provide manufacturers the opportunity to identify and provide evidence of an inappropriate inclusion of a vehicle in a test sample group. This provision is consistent with current enforcement regulations and the rights of

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manufacturers when responding to a notice or determination of nonconformance by petroleum-fueled light duty vehicles.

Subsection 1962.7(e)(6)(C)1.b. Evidence of Non-Representative Vehicle in Test Sample Group.

Purpose

The purpose of this section is to define evidence a manufacturer may submit of a non-representative vehicle in a test sample group.

Rationale

This section is necessary to provide manufacturers with the opportunity to identify and provide evidence of a non-representative vehicle in a test sample group. The requirements for the evidence are necessary to ensure its relevance. This provision is consistent with current enforcement regulations and the rights of manufacturers when responding to a notice or determination of non-conformance by petroleum-fueled light duty vehicles.

Subsection 1962.7(e)(6)(C)2. Information Regarding Appropriate Test Group Sample Size.

Purpose

The purpose of this section is to provide manufacturers the opportunity to object to the size of a test sample group or method of procurement of testing vehicles by presenting their own proposal of an appropriate test sample size or procurement method and supporting evidence.

Rationale

This section is necessary to provide the manufacturer the ability to assert the appropriate test group size and procurement method, the reasons therefore, and any relevant test data from vehicles to support an objection to a notice or determination of nonconformance. This provision is consistent with current enforcement regulations and the rights of manufacturers when responding to a notice or determination of non-conformance by petroleum-fueled light duty vehicles.

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Subsection 1962.7(e)(6)(C)3. Information Regarding Appropriate Test Group Sample Size.

Purpose

The purpose of this section is to allow manufacturers to provide other relevant evidence to rebut or refute a notice or determination of non-conformance with the durability or SOH accuracy requirements.

Rationale

This section is necessary to provide the manufacturer the ability to provide any relevant information not covered in subsection (e)(6)(C)1 or 2. This provision is consistent with current enforcement regulations and the rights of manufacturers when responding to a notice or determination of non-conformance by petroleum-fueled light duty vehicles.

Subsection 1962.7(e)(6)(D) Late Submission of Manufacturer Required Response to Notice of Determination of Nonconformity.

Purpose

The purpose of this section is to provide an opportunity and the conditions under which a manufacturer may submit information after the deadlines established in the regulations.

Rationale

This section is necessary to ensure a manufacturer may provide the Executive Officer with any information relevant to a notice or determination of nonconformance, including when the manufacturer could not have reasonably foreseen the need for the information until after the notice was provided. This provision is consistent with current enforcement regulations and the rights of manufacturers when responding to a notice or determination of non-conformance by petroleum-fueled light duty vehicles.

Subsection 1962.7(e)(6)(E) Additional Testing.

Purpose

The purpose of this subsection is to define additional testing and deadlines for notification after receipt of any information submitted pursuant to subsection (e)(6)(C).

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Rationale

This section is necessary to provide that additional testing may be conducted after the manufacturer submits information as allowed by subsection (e)(6)(C) that demonstrates the need for additional testing to ensure testing results are valid. This may be necessary for a variety of reasons; for example, vehicles may have needed to be removed from the sample test group and replaced with other vehicles that do not violate vehicle selection requirements. This provision is consistent with current enforcement regulations and the rights of manufacturers when responding to a notice or determination of non-conformance by petroleum-fueled light duty vehicles.

Subsection 1962.7(e)(6)(F)1. Final Determination.

Purpose

The purpose of this section is to disclose that the Executive Office will consider all relevant information when issuing a final determination of noncompliance, and define the time by which the Executive Officer shall notify the manufacturer after completing any additional testing.

Rationale

This section is necessary ensure that all relevant information is considered before the Executive Officer issues a final determination of nonconformity and that it is issued in a timely manner. The time period is consistent with current light-duty enforcement regulations and CARB's practices.

Subsection 1962.7(e)(6)(F)2. Information included in Notice of Final Determination.

Purpose

The purpose of this section is to disclose that notice of final determination must include a description of each test group that is nonconforming and set forth the factual bases for determination.

Rationale

This section is necessary to ensure the Executive Officer provides a detailed description of nonconformance and the factual bases for the determination to the manufacturer. This will ensure the record of the nonconformance supports appropriate actions to remedy the nonconformance and deter future instances of nonconformance.

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This provision is consistent with current enforcement regulations and the rights of manufacturers when responding to a notice or determination of non-conformance by petroleum-fueled light duty vehicles.

Subsection 1962.7(e)(6)(G) Time Extensions.

Purpose

The purpose of this section is to implement the option for the Executive Officer to extend the time requirements set forth in (e)(6) to a manufacturer.

Rationale

This section is necessary so the manufacturer may request a time extension if needed and the Executive Officer may grant it for good cause. This provision is consistent with current enforcement regulations and the rights of manufacturers when responding to a notice or determination of non-conformance by petroleum-fueled light duty vehicles.

Subsection 1962.7(f)(1) Voluntary Corrective Action.

Purpose

The purpose of this subsection is to define the requirements for a manufacturer's voluntary corrective action campaign.

Rationale

This section is necessary to establish procedures for a manufacturer's voluntary corrective action campaign. These procedures are necessary to ensure that the manufacturer notifies CARB of the nonconformance and ensure that CARB has the opportunity to review the manufacturer's voluntary corrective action plan in time to ensure its efficacy at remedying the nonconformance.

Subsection 1962.7(f)(2) Influenced Corrective Action.

Purpose

The purpose of this subsection is to define that within 45 days of nonconformance notification a manufacturer may conduct influenced corrective action of all vehicles within a motor vehicle class.

Rationale

This section is necessary to allow a manufacturer to elect to conduct an influenced corrective action, within 45 days of nonconformance notification, of all vehicles within

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the motor vehicle class for the purpose of correcting the nonconformance. Before this can happen, the manufacturer must submit an influenced corrective action plan for approval to ensure its efficacy at remedying the nonconformance. Influenced corrective action allow manufacturers to act before being ordered to do so to remedy non-compliant vehicles. This subsection is consistent with existing regulations for influenced corrective actions of petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Subsection 1962.7(f)(3)(A)

Purpose

The purpose of this subsection is to define that the Executive Officer may order the manufacturer to undertake appropriate corrective action if the manufacturer elects not to conduct an influenced corrective action. The purpose of this subsection is to define that the manufacturer may be required to take action if a motor vehicle class is found to be nonconforming.

Rationale

This section is necessary to make explicit the Executive Officer's ability to require the manufacturer to undertake corrective action if it is determined that a motor vehicle class is nonconforming. This subsection is consistent with existing regulations for influenced corrective action of petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Subsections 1962.7(f)(3)(B), (f)(3)(B)1. through (f)(3)(B)5.

Purpose

The purpose of this subsection is to define the basis upon which the determination shall be made regarding corrective action.

Rationale

This section is necessary to ensure that the Executive Officer orders corrective action based upon all relevant and appropriate metrics, criteria, and circumstances, as set forth in this subsection. This includes specified factors like the impact of the non-compliance, such as drivability and repairability of the vehicle, and consideration of whether the manufacturer submitted incorrect or incomplete information at the time of certification. This information is necessary to determine the appropriate scope of corrective action to be ordered. This subsection is consistent with existing regulations for influenced corrective action of petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

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Subsection 1962.7(f)(4)(A) and (B) Notice to Manufacturer for an Ordered Corrective Action.

Purpose

The purpose of these subsections is to define the process in which the manufacturer will be notified of the type of corrective action being ordered, and what will be included in the notice to take such action.

Rationale

This section is necessary to provide the process through which a manufacturer will be notified of the type of corrective action to be taken. The information included in the notice is necessary to provide the basis for such an order, the violation of the test group in question, and the requirements for the manufacturer to submit a plan to execute the corrective action being ordered. This subsection is consistent with existing regulations for influenced corrective action of petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Subsection 1962.7(f)(5)(A) through (C) Availability of Hearing to Contest Corrective Actions.

Purpose

The purpose of this subsection is to define the process of a manufacturer requesting a hearing and the procedures and deadlines that need to be adhered to.

Rationale

This section is necessary to set the deadline for a manufacturer to request a hearing to contest the findings of nonconformity and the necessity for or the scope of any ordered corrective action. This section is also necessary to provide notice of the process by which the hearing is held. It also provides notice that if the Executive Officer's determination of nonconformity is confirmed, then the manufacturer must submit the required corrective action plan in accordance with section (g)(1) below within 30 days after receipt of the Board's decision affirming the determination. These subsections are necessary to provide due process to appeal a finding of nonconformance and are consistent with existing light-duty vehicle enforcement regulations and procedures for administrative proceedings to minimize burdens and facilitate compliance from varying procedures.

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Subsections 1962.7(g)(1)(A) and (g)(1)(A)1. through 11. Corrective Action Plans.

Purpose

The purpose of this subsection is to define the requirements for corrective action plans to ensure they will correct instances of nonconformance.

Rationale

This section is necessary to establish the contents of corrective action plans that manufacturers are required to prepare and submit to ensure that, and allow the Executive Officer to fully evaluate whether, the plans will correct the underlying nonconformance. Each required element of the plan reflects an aspect of a manufacturer's intended corrective action implementation or documentation that is necessary for the Executive Officer to consider in determining whether the plan effectively corrects the nonconformity and shall be approved under subsection (g)(1)(B). This subsection is consistent with and generally mirrors requirements in existing regulations for petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance. It is necessary to require that the Executive Officer request additional information as needed on a case-by-case basis to adequately evaluate a corrective action plan to avoid inadequate information necessitating rejection of a corrective action plan and the delay of the corrective action caused by that rejection and subsequent resubmittal.

Subsections 1962.7(g)(1)(B)1. through 6. Approval and Implementation of Corrective Action Plans.

Purpose

The purpose of this subsection is to define the process in which a corrective action plan by a manufacturer gets approved or disapproved and the procedures followed. This subsection also requires manufacturers to implement the corrective action plan as approved and at no cost to vehicle owners and provides that failure to do so is a violation of this section.

Rationale

This subsection is necessary to set the requirement that a corrective action plan compiled and submitted by a manufacturer must get approved before implementation can begin. The information considered by the Executive Officer for approval of influenced and ordered corrective action plans is necessary to ensure CARB is aware of all plans of the violating manufacturer, that the plan will be reasonably effective and expeditious, and that correction will begin within the necessary timeframe. It is

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necessary for the Executive Officer to approve influenced and ordered corrective action plans in writing within 30 days of receipt to provide adequate time for the Executive Officer to review and consider the plan while ensuring that the manufacturer is notified of the approval or disapproval within a limited timeframe and the corrective action can be initiated promptly if the plan is approved. The default approval of voluntary corrective action plans unless disapproved within 30 days is necessary because detailed Executive Officer scrutiny may not be needed or appropriate for the generally relatively minor nonconformities addressed via voluntary corrective action plans. Moreover, default approval of voluntary corrective action plans is necessary and appropriate to help incentivize manufacturers to propose voluntary corrective action upon discovering a nonconformance. This subsection is also necessary to set forth the process by which the Executive Officer can disapprove a voluntary or ordered corrective action plans. The deadlines for resubmittal of a revised corrective action plan following the Executive Officer's disapproval are necessary to ensure that the manufacturers can make the necessary revisions to the respective corrective action plans while ensuring that the corrective action can be initiated promptly (once the revised plan is approved). It is necessary for a manufacturer to begin to notify vehicle owners and implement an ordered corrective action plan within 45 days of its approval to give the manufacturer time to perform necessary preliminary logistical activities while ensuring that the corrective action is performed promptly. This subsection is generally consistent with existing regulations for petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Specifying that manufacturers must implement the corrective action plan as approved and that failure to do so is a violation of this section is necessary to ensure that the corrective action plans are implemented as approved (in order to ensure their efficacy) and that manufacturers are aware of their obligations and the consequences for failing to meet those obligations. It is also necessary to specify that corrective actions must be made at the expense of the nonconforming manufacturer and not the vehicle owners; it would be unfair for manufacturers to charge vehicle owners for fixing nonconformities for which the manufacturers were responsible. It is necessary to include this cost provision for corrective action in addition to the warranty provisions of section 1962.8 because corrective action may not always align with warranted conditions and timeframes.

Subsection 1962.7(g)(2)(A) and (B) Modifications

Purpose

The purpose of this subsection is to allow the manufacturer to submit a modified corrective action plan if needed, subject to the requirements of subsection (g)(1)(A) and the approval and implementation process of (g)(1)(B). This subsection also

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provides for when the Executive Officer may require a corrective action plan to be modified.

Rationale

There may be instances where, though a manufacturer is exercising reasonable diligence in carrying out the corrective action plan, the plan nevertheless is not effectively correcting the nonconformance as anticipated. Because manufacturers must implement the plan as approved, it is necessary to provide a process by which a manufacturer may submit or CARB may require a modified corrective action plan. A modified corrective action plan must still satisfy the requirements of subsection (g)(1)(A) and be approved according to (g)(1)(B), for simplicity and consistency.

Subsections 1962.7(g)(3)(A) and (B) Eligibility for Corrective Action.

Purpose

The purpose of these subsections is to make explicit manufacturers may not condition eligibility for participation in the corrective action on the proper maintenance or use of the vehicle. The purpose of subsection (g)(2)(B) is to not obligate manufacturers to perform repairs if the vehicle has been modified in such a way as to require additional cost for the corrective action that the manufacturer must perform.

Rationale

These subsections are necessary to ensure eligible vehicles are included in the corrective action being performed by the manufacturer and that vehicles are not unduly excluded. This subsection is consistent with existing regulations for petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Subsections 1962.7(g)(4)(A) through (E) Notice to owners.

Purpose

The purpose of these subsections is to define the process in which a manufacturer must notify vehicle owners, the information the notice must contain, and any other requirements that shall be included in the corrective action campaign.

Rationale

These subsections are necessary to set the requirements that ensure owners of vehicles with corrective action are effectively notified, the notice has the types of information needed from the manufacturer for the vehicle owner to obtain corrective

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action, and other requirements to be included in a corrective action campaign. It is necessary to establish a default process for manufacturers to provide notice to vehicle owners and reasonable to identify first-class mail as a standard, reliable, and inexpensive default notification option. It is also necessary to notify manufacturers that the Executive Officer, on a case-by-case basis, may approve or require alternative or additional notification methods as necessary for effective and timely notification of the specific class of vehicle owners regarding the specific nonconformance. For example, a particular nonconformance may create safety hazards that necessitate both the most rapid and the most reliable forms of notification. Similarly, it is necessary to notify manufacturers that the Executive Officer, on a case-by-case basis, may include additional content- or process-related notice requirements as necessary and reasonable to assure the effectiveness of the specific corrective action campaign (e.g., if the nonconformance implicates safety or otherwise necessitates additional information or procedures). While such additional notice elements generally would be required, on a case-by-case basis, in the corrective action plan or through a plan modification, it is necessary to provide for the Executive Officer to require additional notice elements outside those processes, on a case-by-case basis, in case the nonconformance implicates safety or rapid additional notice otherwise becomes necessary. It is also necessary to explicitly require manufacturers use all reasonable means necessary to locate vehicle owners and prohibit manufacturers from providing any statement to vehicle owners suggesting the nonconforming vehicles are compliant. These provisions clarify manufacturers' obligations when implementing a corrective action and serve to protect affect consumers as reasonably necessary. This subsection is generally consistent with existing regulations for petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Subsections 1962.7(g)(5)(A) through (E) Label Indicating that Corrective Actions Have Been Performed.

Purpose

The purpose of these subsections is to define that a manufacturer shall require those performing corrective action to place a label on inspected or repaired vehicles. The label must be in a location commonly accessed by repair technicians when verifying key parameters or configuration specifications of the vehicle and must contain a corrective action campaign number and a code for the facility.

Rationale

This section is necessary to ensure that those performing corrective action are labeling and placing labels in accessible locations on the vehicle undergoing the inspection or repair. The label is necessary to ensure that service technicians, inspectors, and

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prospective owners are aware that corrective actions have been performed. The corrective action campaign number and facility code are necessary to ensure that the manufacturer, service technicians, and inspectors, have the ability to track this information for each vehicle for which corrective action has been performed. It is necessary and appropriate to provide an exemption from the label requirement when the corrective action involves only software, the manufacturer keeps a record of the VINs, and the manufacturer provides certain information to the Executive Officer because a future technician or inspector can learn the details of prior software repairs from the software itself, and the conditions of the exemption ensure that information that would otherwise be on the label is available if a need for the information does materialize. This subsection is consistent with existing regulations for petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance, though the label location does not require advance Executive Officer approval.

Subsections 1962.7(g)(6) Proof of Performance of Corrective Action Certificate for Recalls.

Purpose

The purpose of this subsection is to require certificates confirming corrective actions under a recall have been performed.

Rationale

This section is necessary to ensure manufacturers provide a certificate confirming that corrective action was performed on a vehicle when it has been the subject of a recall. This ensures owners, prospective buyers, service technicians, and inspectors are aware that a vehicle subject to a recall has been repaired. The requirement for the format of the certificate ensures it has been validly issued under existing regulatory requirements. This subsection is consistent with existing regulations for petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Subsections 1962.7(g)(7)(A) through (D) Reporting and Record Keeping Requirements.

Purpose

The purpose of this subsection is to define the record keeping and reporting requirements to document in a consistent and reliable manner that manufacturers have met their obligations under the regulations.

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Rationale

This section is necessary to ensure manufacturers collect and maintain evidence of corrective action and provide it to the Executive Officer to verify compliance. Prompt quarterly reporting is necessary to enable the Executive Officer to identify and respond to any failure to meet a requirement or address a new issue as soon as reasonably possible. Information about the scope and progress of the corrective action and affected vehicles is necessary to provide the Executive Officer with information about the pervasiveness of the problem to promote effective regulatory actions, such as whether additional investigation is necessary for a more widespread problem, whether the regulatory program should be amended, or whether the corrective action should be adjusted. The requirements for standardized data reporting ensure the Executive Officer may efficiently analyze the data and conduct comparative analyses. The requirements for record keeping are necessary to ensure that manufacturers are capable of retrieving additional information about their implementation of corrective action if needed to verify compliance or take further related corrective action. The record keeping requirements apply to a broader set of records than the reporting requirements because the additional records may or may not become relevant to, for example, potential corrective action plan modification, and therefore are necessary to retain but not to submit to the Executive Officer by default. The retained record format is necessary to ensure that the Executive Officer can practicably obtain and consult the records as needed to implement the remainder of this section. The requirement to provide the retained records to the Executive Officer upon request is necessary to ensure that the Executive Officer can consult the records as needed to implement the remainder of this section. The retention period is necessary to specify the length of time record retention is required, and the timeframe is necessary and appropriate to ensure that records are available if relevant and necessary for review without requiring retention beyond the period that the records may be relevant and necessary for review. This subsection is generally consistent with existing regulations for petroleum-fueled vehicles to minimize burdens from varying procedures and promote compliance.

Subsections 1962.7(g)(8) Extension of Time.

Purpose

The purpose of this subsection is to define the Executive Officer's ability to extend any deadline set forth in subsection (g) if requested by the manufacturer. The subsection provides that manufacturers may request an extension at least 20 days before the deadline and that, along with an extension request, the manufacturer must provide documentation regarding the time that the manufacturer reasonably believes is necessary to comply with the requirement and an explanation of why compliance is

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not or could not be timely. The subsection requires the Executive Officer to grant the request if the manufacturer has demonstrated inability to comply despite exercising reasonable diligence. The subsection identifies the factors the Executive Officer must consider in making a case-by-case determination of the duration of an extension and requires the Executive Officer to notify the manufacturer of their decision in writing at least 7 days before the applicable deadline.

Rationale

This subsection is necessary to define the ability and circumstances in which a manufacturer may request and obtain the extension of a deadline in subsection (g). Extension of a deadline may be necessary and reasonable for effective implementation without undue burden when the manufacturer has exercised reasonable diligence to comply and is unable to comply with the applicable deadline. The subsection is necessary to define the process for a manufacturer to make the request, the Executive Officer to review the request and determine the duration of an extension, if granted, and the Executive Officer to issue a decision on the request. The information and documentation the manufacturer must provide is necessary for the Executive Officer to confirm that the manufacturer is unable to comply by the deadline despite exercising reasonable diligence and to allow the Executive Officer to determine the duration of any extension provided. The factors the Executive Officer must consider in making a case-by-case determination regarding the duration of any extension are necessary to allow for effective implementation that avoids undue burden on manufacturers that have exercised reasonable diligence while accounting for adverse impacts from delay. The deadlines for the manufacturer to make the request and for the Executive Officer to issue a decision are necessary and reasonable balances of the needs to ensure that manufacturers prepare for deadlines well in advance, that the extension process can apply when (despite a manufacturer's reasonable diligence) compliance difficulties arise closer to the compliance deadline, and that the Executive Officer responds to an extension request in time that a manufacturer whose request is denied can still comply with the original deadline.

Subsections 1962.7(h) Penalties

Purpose

The purpose of this subsection is to disclose the potential penalties for violations of this section and section 1962.4, and the factors that shall be considered when determining the amount of the penalty under the requirements of the Health and Safety Code.

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Rationale

This section is necessary to disclose the potential penalties and the factors that shall be considered when determining the amount of the penalty for violations of this section and 1962.4. Health and Safety Code sections 43016 and 43212 provide for civil penalties against persons and manufacturers for violations of the proposed regulations. Health and Safety Code section 43024 requires CARB to publish a penalty policy for civil (and administrative) penalties for violations of these kinds of regulations.

Subsection 1962.7(i) Electronic submittal.

Purpose

The purpose of this subsection is to define the mechanism by which manufacturers must submit documents, reports, information, and requests (hereinafter, "documents") under the proposed regulations. The subsection provides that manufacturers must submit documents electronically using CARB's Document Management System, an electronic system that allows manufacturers to send documents to CARB via the internet.

Rationale

This subsection is necessary to provide manufacturers with a designated mechanism to submit required or optional documents under the proposed regulations. It is necessary for CARB to require manufacturers to submit documents under this section through CARB's Document Management System, which manufacturers already must use to submit certification documents to CARB, because it supports efficient transmittal and review, provides manufacturers with a consistent submittal mechanism across regulations, and reduces the bulk of paper. It is necessary to provide the website address <https://ww2.arb.ca.gov/certification-document-management-system>, which provides a detailed explanation of the system, instructions, support information, and a prominent link to log-in page for the system at <https://ssl.arb.ca.gov/edms>, rather than providing the address of the log-in page, which lacks these explanatory and support features.

Subsection 1962.7 (j) Severability.

Purpose

The purpose of this subsection is to define that each provision of this section is severable and if any provision of this section is held to be invalid or unenforceable, the remainder of the article remains in full force and effect.

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Rationale

This subsection is necessary to preserve the overall intent of what the proposed regulation is set to achieve, even if unforeseen issues arise with enforcing any individual term of the proposed regulation.